ETSU East Tennessee State University

...becoming the best regional university in the country.

Johnson City, Tennessee

Prepared For:
East Tennessee State University and The Tennessee Board of Regents
SBC Project No. 166/005-02-05

Masterplan By:

FISHER+ASSOCIATES
Architecture/Planning

Campus Master Plan 2010

CAMPUS MASTER PLAN 2010

EXCELLENCE

COMMITMENT

PEOPLE

OUR VISION

To become the best regional university in the nation.

OUR MISSION (ABBREVIATED)

Educate students to become responsible, enlightened, and productive citizens; Conduct scholarship that improves the human condition; Serve business, education, government, health care systems, and community; and Enhance the cultural environment of the region.

OUR VALUES

***ETSU** pursues its mission through a student-centered community of learning reflecting high standards and promoting a balance of liberal arts and professional preparation, continuous improvement, and based on core values where:*

***PEOPLE** come first, are treated with dignity and respect, and are encouraged to achieve their full potential;*

***RELATIONSHIPS** are built on honesty, integrity, and trust;*

***DIVERSITY** of people and thought is respected;*

***EXCELLENCE** is achieved through teamwork, leadership, creativity, and a strong work ethic;*

***EFFICIENCY** is achieved through wise use of human and financial resources; and*

***COMMITMENT** to intellectual achievement is embraced.*

EFFICIENCY

Sidney D. Gilbreath
First President

PRESIDENT'S FOREWORD

East Tennessee State University is a growing institution in every aspect. In Fall 2009, we experienced the largest enrollment on record with over 13,800 students choosing ETSU as their academic home. The number of students transferring to ETSU continues to show substantial growth, we are adding new graduate programs and colleges, increasing our research and service outreach, as well as continuing to serve our traditional and non-traditional undergraduate students. We have undergone a successful NCAA Certification review, joined the Atlantic Sun Athletic Conference, and are in the midst of a comprehensive capital campaign to address both academic and athletic programming.

New facilities are underway that will change the face of our campus and improve the quality of the educational and work experience for our students, faculty, and staff. I am exceedingly proud that the university has been able to plan effectively, identify a variety of sources of funding, and proceed with implementation of plans to meet our expanding needs. Effective planning takes time and draws upon the careful consideration of the various stakeholders on campus and the expertise of professionals.

This Campus Master Plan update is the result of several years of discussions, idea generation, and testing. This plan integrates new initiatives into on-going plans for campus improvements. We are excited about the opportunities that lie ahead for our university and its community. We believe this update will allow us to implement our plans for growth in a consistent and phased manner.

It is with ETSU pride and anticipation that we present this updated and revised Campus Master Plan.

Paul E. Stanton, Jr.

Paul E. Stanton, Jr., President
East Tennessee State University

RELATIONSHIPS

DIVERSITY

CAMPUS MASTER PLAN HISTORY

Date	Partner Firm	Master Plan
2010	Fisher + Associates	Campus Master Plan Update
2010	Comprehensive Facilities Planning	Academic Facilities Master Plan
2010	Facility Systems Consultants, LLC	Carbon Reduction Plan
2007	Desman, Inc.	Parking & Access Study
2006	Carl Walker, Inc.	Campus Parking Study
2005	ETSU Graduate Students	Campus Parking Study
2004	Heery International, Inc.	Athletic & Physical Education Master Plan Revision
2003	Heery International, Inc. McCarty Holsaple McCarty, Inc.	Athletic & Physical Education Master Plan
2003	McCarty Holsaple McCarty, Inc. Fisher + Associates	Campus Master Plan Update
2003	McCarty Holsaple McCarty, Inc. EDAW / Fisher + Associates	University Innovation Park Master Plan
2002	Anderson Strickler, LLC	Comprehensive Plan for Living and Resident Life
1999	David Leonard Associates West, Welch, Reed	Campus Master Plan Update
1992	Sasaki Associates, Inc.	Campus Master Plan

EXECUTIVE SUMMARY

The Master Plan Update study area is comprised of two closely related sites, the Main Campus and the Division of Health Sciences primarily situated on the Mountain Home Veterans Administration Campus (see pages 05 and 27).

The 204 acre Main Campus is generally defined by State of Franklin Road to the north, University parkway to the east, J.L. Seehorn Jr. Road to the south and South Greenwood Drive to the west. The Main Campus study area also includes approximately 148 acres of outlying University-owned land to the south of J.L. Seehorn Jr. Road. The University occupies a total of approximately 64 buildings on the Main Campus.

The James H. Quillen College of Medicine and the new College of Pharmacy, are located on the 250-acre Mountain Home Campus, in a group of buildings on a site generally defined by West Main and Lamont Street to the north, the VA Administration and a new nursing home and domiciliary facilities to the east, the Southern Railroad to the south and the Johnson City Medical Center to the west. The University's Medical School currently occupies 11 of the buildings on the site. A 35 year enhanced use lease agreement between the Veterans Administration and ETSU Medical School increased the Division of Health Sciences presence on the Mountain Home Campus with full occupancy of 31 acres and nine buildings. This lease was signed on December 17, 1998. A newly signed short term lease has allowed ETSU the use of the Carnegie Lecture (building 17) and the Memorial Hall Theatre (Building 35).

In addition to the University complex comprised of the Main Campus and Mountain Home Campus, the University also maintains three other campuses in the Tri-Cities region: ETSU at Kingsport, Marshall T. Nave Center in Elizabethton and ETSU at Bristol, The ETSU Clinical Education Facility is located on the State of Franklin Road west of the Main Campus. Clinical Education facilities are located in the Kingsport Family Practice Center and the Bristol Family Practice Center. The East Tennessee State University and General Shale Brick Natural History Museum and Visitor Center located in Gray, Tennessee opened in August 2007.

Excerpts from the University Innovation Master Plan which is the focus of the Middle Anchor for the Med Tech Corridor proposed by the Hammer Siler George Report recommending the development of a federal research center are included in this update. The ETSU Innovation Lab is presently situated on this 60 acre site which comprises the area known by the report as the Middle Anchor.

Finally, an Academic Facilities Master Plan is included as a primary focus of this master plan update. The detailed academic facility data developed in this master plan will be used to support renovation and new construction requests over the next decade. Program space planning will also benefit from this information. This effort was the first time an actual academic facilities space plan has been completed at ETSU.

The primary areas of focus for the 2010 Master Plan Update are as follows:

- Main Campus Master Plan
- Vehicular/Pedestrian Circulation
- Fine Arts Center Master Plan
- Main Campus Parking Master Plan
- Athletic Master Plan
- Acquisition and Disposition Plan
- Housing Master Plan
- Division of Health Sciences Master Plan
- Parking & Access Study
- Academic Facilities Master Plan
- Carbon Reduction Plan

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EXISTING MAIN CAMPUS PLAN

MAIN CAMPUS

The Main Campus is a well-defined compact and linear form, determined in part by its physical location between a mountain ridge and stream valley. Development decisions over a nearly 100 year period have resulted in the sitting of a majority of the buildings in a rectilinear layout that generally parallels the adjacent ridge line of Buffalo Mountain. The University's character is enhanced by a series of homogeneous buildings similar in mass, height and material. The majority of buildings are designed in a Neo-Georgian style, distinguished by brick walls, gable or flat roofs and similar sized window openings. The Charles C. Sherrod Library carries forth the Classical format of the campus in a contemporary manner consistent with the scale and dignity of function. The University Center, Memorial Center and the Information and Security building introduced unique building forms and materials to the campus fabric that are not consistent with the context of the original campus.

The campus area between Lake Street and John Robert Bell Drive is the most densely developed sector of the University, containing principal academic and administrative buildings as well as remnants of the original principal campus open spaces including the Great Lawn east of Gilbreath Hall. East of Lake Street, the campus is characterized by large surface parking lots and a variety of land uses. The campus area west of University Drive contains a somewhat looser arrangement of buildings, as well as large parking lots and sport fields.

Campus edges are generally defined by the street perimeters, but there is little clear distinction between the University and the community, particularly along the northeastern edge. The recent construction of State of Franklin Road has increased the number of well used entrances to the campus, reducing the significance of the existing "main entrance" on University Parkway.

MAIN CAMPUS INDEX

2	Alexander Hall
3	D.M. Brown
5	Mathes Hall
6	Ernest C. Ball Hall
7	Memorial Center
8	Warf-Pickel Hall
9	Memorial Hall
10	Gilbreath Hall
11	Campus Center Building
12	Sam Wilson Hall
14	Burleson Hall
15	Lyle House
16	Earnest House
17	Wilson-Wallis Hall
18	Hutcheson Hall
19	John P. Lamb, Jr. Hall
20	Roy S. Nicks Hall
21	Rogers-Stout Hall
40	Power Plant
41	Clack Building
42	Bond Building
43	Lyle Barn
45	Storage Building
60	Burgin E. Dossett Hall
62	Art Annex
68	Information and Public Safety Building
90	920 W. Maple St.
91	Reece Museum
92	D.P. Culp University Center
94	Softball Stadium
95	Soccer Facility
96	902 W. Maple St.
100	Married Housing
101	Married Housing
102	Married Housing
103	Married Housing
104	Married Housing
105	Married Housing
106	Married Housing
107	Wash House
110	Davis Apartment
111	Davis Apartment
112	Davis Apartment
125	Centennial Hall
127	Carter Hall
128	Stone Hall
129	Ross Hall
130	Powell Hall
131	Ross Panhellenic Hall
132	West Hall
133	Nell Jennings Dossett Hall
134	Lucille Clement Hall
140	Luntsford Apartments
150	Ctr. for Community Outreach & Family Services
151	Office of Rural and Community Health
153	908 W. Maple St.
155	916 W. Maple St.
157	918 W. Maple St.
158	1110 Seminole Dr.
159	1118 Seminole Dr.
170	Physical Plant Storage Building
303	Information Technology / Telecommunications
304	Johnson City Family Practice
305	Central Receiving and Physical Plant Warehouse
306	WETS-FM Radio Station
310	Harry D. Powell Observatory
320	Charles C. Sherrod Library
321	Buccaneer Ridge Apartments I
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327	Buccaneer Ridge Apartments I
328	Buccaneer Ridge Clubhouse
330	Basler Center for Physical Activity
332	Child Study Center
340	Auxiliary Food Service
349	Golf Maintenance Building
350	Warren-Greene Golf Center
351	Buccaneer Ridge Apartments II
352	Buccaneer Ridge Apartments II
353	Governors Hall
355	Surplus Warehouse
356	Johnson City Family Practice – Modular Office
357	Buccaneer Ridge Apartments III
358	Buccaneer Ridge Apartments IV
904	Scott M. Niswonger Digital Media Center

EXISTING MAIN CAMPUS PLAN

JACK VEST DRIVE
JL SEEHORN JR. DRIVE
STATE OF FRANKLIN
UNIVERSITY PARKWAY
SOUTHWEST AVE.
SOUTH DRIVE

LEGEND
- Building Constructed Before 2005
- Building Constructed After 2005

MAIN CAMPUS MASTER PLAN

MASTER PLAN

The following plan illustrates the proposed changes and improvements for the ETSU Main Campus. Detailed descriptions of specific areas of study follow.

FINE ARTS CENTER

The siting of the proposed Fine Arts Center is one of the focal points of the Master Plan Update. The proposed siting locates the building on the historic axis with Gilbreath and Dossett Halls. It also provides a focal point for the new ceremonial entrance along University Parkway while also providing an entrance oriented to the core of the campus providing access to the educational spaces contained within the new Fine Arts Center.

ATHLETICS

The recommended Athletic improvements reinforce the ambitious effort by ETSU to build athletic facilities that will set the foundations for future excellence. The Soccer Complex, Track and Field Facility and Tennis Center take advantage of the underutilized western third of the existing campus plan. The siting of these facilities not only takes advantage of the existing topography to enhance their presence in concert with resolving the drainage issues which have plagued this end of campus. The Softball Stadium is sited on the western end of campus north of Greenwood Drive taking advantage of a land swap which provided initial site grading, therefore reducing the future development cost of the stadium.

The proposed Baseball Stadium would provide a home for both the ETSU Buccaneer Baseball team as well as the minor league Johnson City Cardinals of the historic Appalachian League. The proposed stadium is to be located at the northeast side of campus across State of Franklin Road providing the opportunity for ETSU to enhance its community relations and provide a physical urban connection to downtown Johnson City.

HOUSING

The proposed areas for a campus wide housing upgrade responds to the existing well-defined residential groups on the east and west ends of campus. The plan calls for the renovation of facilities including historical Carter Hall as well as Nell Dossett and West Halls on the west side of campus. The proposed redevelopment of the residential east side of campus recommends the new construction of an apartment project working in harmony with Mack Davis Apartments and Governors Hall to create a large outdoor courtyard for student activities. Finally, the proposed construction of a new apartments near the existing Buccaneer Ridge complex and the renovation of the Married Student Housing is included in the master plan.

VEHICULAR / PEDESTRIAN CIRCULATION / PARKING

The proposed master plan reinforces the goal of shifting traffic from the interior of the campus and moving parking into parking garages and lots on the periphery, allowing the university to restore the main quadrangle between Dossett and Gilbreath Halls to a pedestrian area. The plan also proposes to reduce traffic and parking along Lake Street while enhancing its aesthetic character with elements that tie the eastern third of campus with the historic core. The development of parking on the edges of campus will allow for limited vehicular traffic in the pedestrian oriented core of the main campus. This study has been developed in conjunction with the 2007 Parking & Access study by Desman Inc.

MAIN CAMPUS INDEX

EXISTING BUILDINGS

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352	Buccaneer Ridge Apartment
353	Governors Hall
355	Surplus Warehouse
358	Centennial Hall
904	Scott M. Niswonger Digital Media Center

NEW BUILDINGS

N1	Welcome Center
N2	Math & Science Bldg.
N3	Fine Arts Center
N4	Public Safety / Parking Garage
N5	Basketball Arena
N6	Parking Garage
N7	Track & Field Facility
N8	Baseball Stadium
N9	Tennis Complex
N10	Parking Garage
N11	Intramural Fields
N12	Buccaneer Ridge Apartment III
N13	Parking Garage
N14	Future Apartment Development
N15	Buccaneer Ridge Apartment IV
IN2	Center for Experiential Learning
IN3	University High School

University School
Innovation Park Campus

East Tennessee ETSUState University

Johnson City, Tennessee

Campus Master Plan Update

FISHER + ASSOCIATES
Architecture/Planning

LEGEND
- Existing Buildings
- Proposed Buildings
- Proposed Innov. Park Buildings

0 200 400

ACADEMIC FACILITIES MASTER PLAN

Academic Space Master Plan

The Academic Space Master Plan involved the collection and analysis of data on a departmental level for most units housed on the Johnson City Campus. Residence halls, non-university operations and satellite operations were excluded from this study. The space need requirements, including the square footage amounts of each room type were determined by the discipline, equipment used in the area, utilization rates (i.e., station area, station occupancy ratios, and room utilization rates), number of persons occupying the space, etc. The results derived from the space needs calculations were then compared to the current assigned space to determine surpluses or deficiencies of space. This analysis was a critical step in establishing capital planning priorities and addressing the planning requirements established by the Tennessee Board of Regents.

Space Needs Overview

The following tables present space needs summaries for the University by division and college and by major space type category.

Space Needs Summary by Division

Table 1 summarizes the future calculated space needs as compared with the existing inventory of space by major division and college grouping.

Space Needs Summary by Space Type

Table 2 summarizes the future calculated space needs as compared with the existing inventory of space by major room type grouping:

Conclusions

The Academic Space Master Plan scope included an assessment of all of the departments located on the Johnson City campus along with three Family Practice clinics and the Nave Center facility. The total current space assigned to these departments included in the assessment exceeded 1.65 million assignable square feet.

The assessment developed formula-based space needs calculations for each department. The future space need was also developed for a projected ten year timeframe to the year 2020 based on an overall enrollment growth rate of approximately 25%. To accommodate this growth the future space requirement was determined to be just over 2.01 million assignable square feet for a net aggregate shortfall of about 356,900 assignable square feet (22% more than the current inventory).

For both the current and projected scenarios the College of Arts and Sciences has the largest overall need (deficit) followed by the College of Medicine. All of the academic colleges will have a space shortfall to meet their future needs.

Office space was identified as the space type with the greatest need (deficit). A part of this deficit is the result of using uniform planning modules and comparing with existing facilities which may be larger than the planning criteria; inclusion of student worker and adjunct faculty that have not historically been assigned office space; and uniformly allocating office support space among all departments.

Instructional and research lab space are the next greatest needs (deficits) identified. The combined calculated future deficits in these space categories exceed all other types.

The University's existing classroom space is sufficient to meet the projected demand.

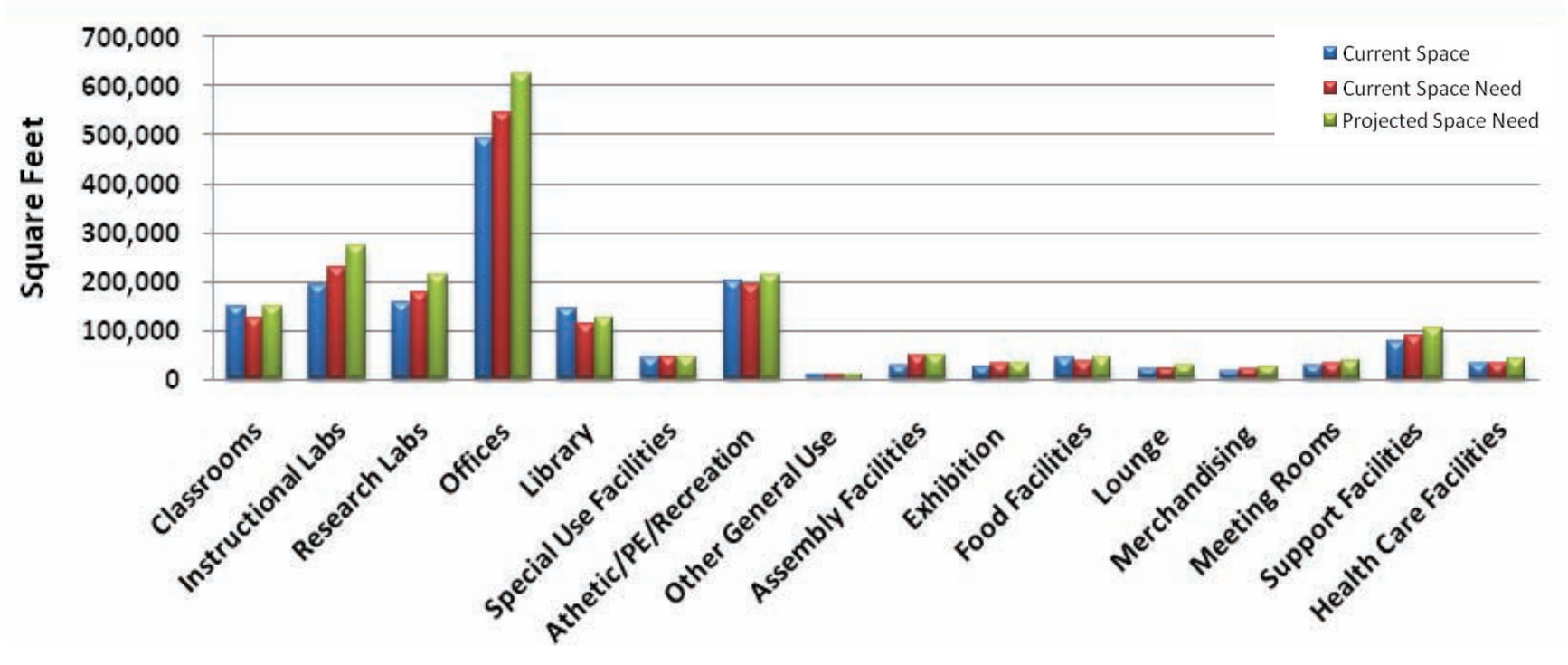
The calculation for the Sherrod Library indicates there is adequate capacity to accommodate both the current and projected needs of the library. A sizable space surplus was identified.

Table 1: Space Needs by Major University Division and College

Division	Current Space	Projected Space Need	Diff from Current Space
Health Affairs	3,902	2,543	1,359
College of Clinical & Rehab Health Sciences	40,676	56,612	-15,936
College of Nursing	34,669	40,914	-6,245
College of Pharmacy	21,950	43,427	-21,477
College of Public Health	34,857	53,347	-18,490
James H. Quillen College of Medicine	258,748	310,314	-51,566
Provost/Academic Affairs	153,070	126,753	26,317
College of Arts and Sciences	259,557	416,302	-156,745
College of Business and Technology	81,411	98,001	-16,590
College of Education	72,116	103,634	-31,518
Enrollment Services	19,140	23,662	-4,522
Research and Sponsored Programs	6,496	3,970	2,526
School of Continuing Studies	10,021	14,304	-4,283
Student Affairs	131,994	129,675	2,319
Finance and Administration	52,063	53,330	-1,267
President	149,621	162,498	-12,877
University Advancement	7,006	9,678	-2,672
Campus Wide Space	319,200	364,459	-45,259
Totals	**1,656,497**	**2,013,423**	**-356,926**

Table 2: Space Needs by Space Type

Space Type		Current Space	Projected Space Need	Diff from Current Space
100	Classrooms	148,922	149,133	-211
210	Instructional Labs	192,409	272,496	-80,087
250	Research Labs	155,742	214,142	-58,400
300	Offices	493,089	624,536	-131,447
400	Library	145,526	124,712	20,814
500	Special Use Facilities	43,802	46,402	-2,600
520	Athletic/PE/Recreation	198,954	213,888	-14,934
600	Other General Use	9,185	9,193	-8
610	Assembly Facilities	28,818	49,267	-20,449
620	Exhibition	26,037	32,223	-6,186
630	Food Facilities	42,668	43,393	-725
650	Lounge	18,642	27,203	-8,561
660	Merchandising	17,367	25,938	-8,571
680	Meeting Rooms	27,743	36,957	-9,214
700	Support Facilities	75,090	102,443	-27,353
800	Health Care Facilities	32,503	41,498	-8,995
Totals		**1,656,497**	**2,013,423**	**-356,926**



A future deficit of about 12.5% for athletic activity space assigned to Intercollegiate Athletics was identified. Campus recreation space should be sufficient to meet future needs.

With the exception of the support facilities space type, most of the other major space type categories indicate shortfalls which mostly relate to student life spaces. The most significant deficiencies impacting student life are in student lounges and meeting room space.

Migration Plan

An implementation or migration plan was developed as part of this assessment to present a scenario of steps necessary to achieve the space needs identified from this study. Key aspects of the recommended migration plan are highlighted below.

Construct a new Science and Math Building to house the future space needs of the Departments of Biology, Chemistry, Physics and Astronomy and Mathematics. The lab animal facility space currently located in Brown Hall would be replaced and included in this facility.

The College of Clinical and Rehabilitative Sciences, along with the Department of Computer Science, will be relocated to a renovated Brown Hall facility. The College of Public Health will then expand into the vacated areas of Lamb Hall. The College of Nursing and the Department of Appalachian Studies will backfill the vacated Computer Science space in Nicks Hall.

Construct a new Performing Arts facility to house the future needs of the Department of Music and the Theatre program in the Department of Communications. A new art gallery will also be included.

The Department of Art and Design will backfill the spaces vacated in Burleson Hall, Mathes Hall and part of Memorial Hall to meet their future needs

Either the Dossett or West residence halls will be repurposed to accommodate the needs of the departments of English and several of the humanities and social science units currently located in Rogers-Stout Hall. Psychology and Political Science will expand in Rogers - Stout Hall, and Psychology will be consolidated with the exception of the Lucille Clement clinic space. The Little Bucs program will also be located in the repurposed residence hall to provide space for several College of Education departments to grow within Warf-Pickel Hall.

The Cross Disciplinary Studies and Continuing Studies departments will be relocated to vacated space in the Campus Center and the existing houses will be demolished to make way for future construction.

Surplus space in the Sherrod Library will house the consolidated future needs of all University tutoring services, the Writing Center and the Math Lab and the Advising Resources and Career Center. The existing open computer labs in the Culp Center will be relocated and expanded to the Sherrod Library.

A new Public Safety facility will be constructed that will house the departments of Public Safety, Parking and Transportation and Environmental Health and Safety. The existing facilities that currently house the former two departments will be demolished.

The Valleybrook Farm facility will be used as the future home of the Innovation Lab; and to meet Geosciences research space needs, Biology field research needs, and for research needs of several departments in the College of Medicine. Space released on the VA Campus will be reorganized to meet the additional research and office space needs of other College of Medicine departments.

The existing Innovation Lab facility will be repurposed for interim research space for the College of Pharmacy; and relocation space for Procurement and Contracts, Budget and Financial Planning and Financial Services from Burgin Dossett Hall. Areas vacated in Burgin Dossett will be used to meet future needs for Admissions, Registrar, Financial Aid, University Advancement and University Relations .

A new wing will be constructed to the College of Pharmacy's existing Building 7 to accommodate its future needs.

Space released in the Culp Center will be repurposed for student center related functions such as meeting rooms, lounges or food services.

FINE ARTS CENTER MASTER PLAN

FINE ARTS CENTER

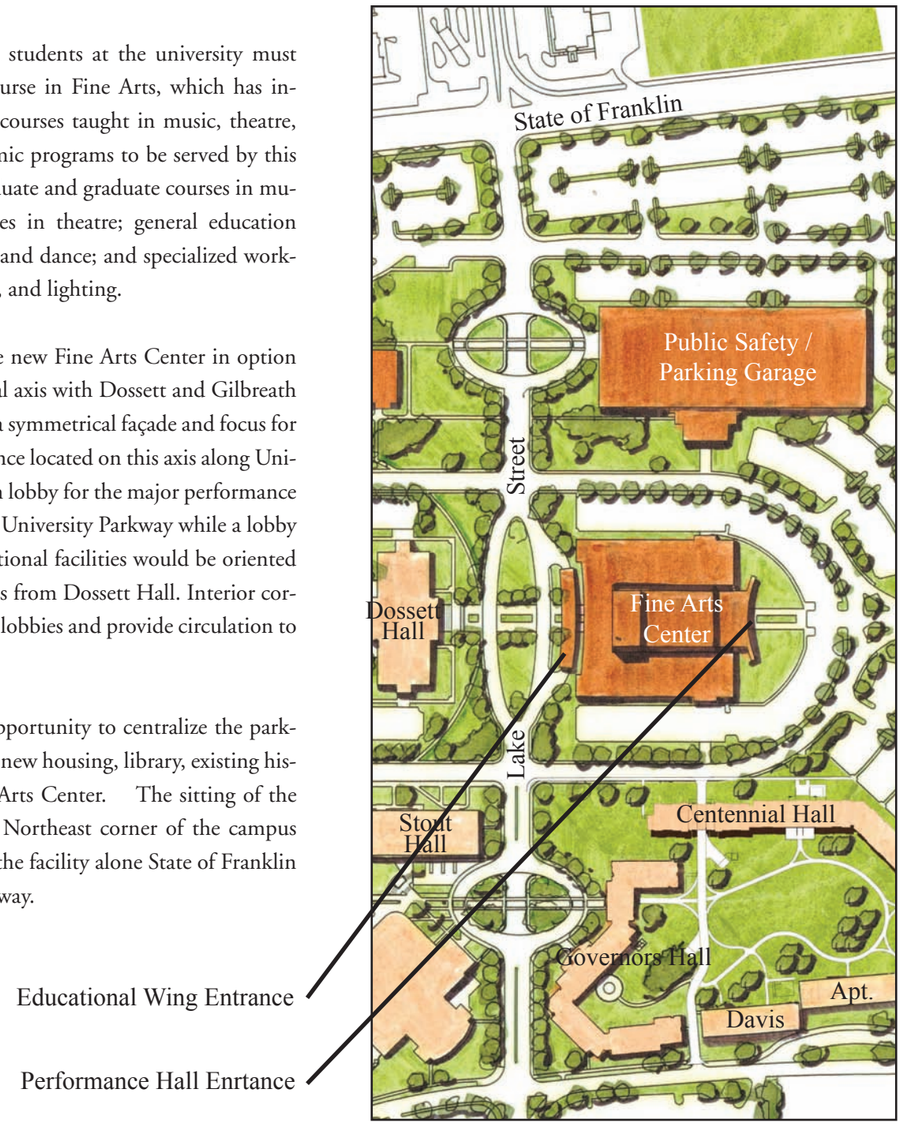
The focus of the Fine Arts Center Master Plan is to site the proposed 130,000 sq. ft. Fine Art Center which would include a major performance hall, a smaller recital hall, two theatre spaces, rehearsal and practice rooms, exhibit space and classrooms. The building would house the university's music and theater programs, while also providing venues for public ETSU performances, touring groups, productions and community arts providing cultural enrichment for the surrounding region.

Completion of the project would allow the university to consolidate its music & theatre programs into one facility since they are currently housed in various buildings on campus. Instrumental and vocal music programs are in Mathes Hall. The theatre program is spread out in various locations, primarily using the 250 seat Bud Frank Theater in Gilbreath Hall, for performances as well as the Veterans Affairs Medical Center Memorial Hall Theater at Mountain Home.

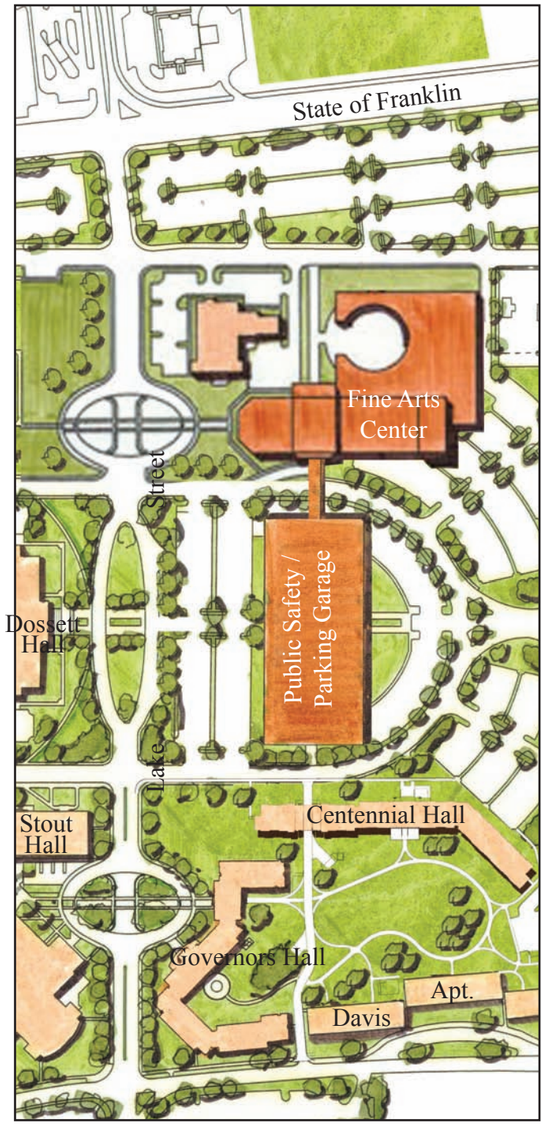
ETSU offers major programs at the graduate and undergraduate level in music (Bachelor of Music in music education or performance) and undergraduate concentrations in theatre through the Department of Communication (programs in theatre and in teacher education). As a result of a comprehensive assessment of the general education core mandated by THEC, all students at the university must now take at least one course in Fine Arts, which has increased the emphasis on courses taught in music, theatre, and dance. Thus, academic programs to be served by this facility include undergraduate and graduate courses in music; undergraduate courses in theatre; general education courses in music, theatre and dance; and specialized workshops in directing, acting, and lighting.

The site placement of the new Fine Arts Center in option A is on the main historical axis with Dossett and Gilbreath Halls and would provide a symmetrical façade and focus for the new ceremonial entrance located on this axis along University Parkway. The main lobby for the major performance hall would be oriented to University Parkway while a lobby for the entrance to educational facilities would be oriented to the main campus across from Dossett Hall. Interior corridors would link the two lobbies and provide circulation to all programmed spaces.

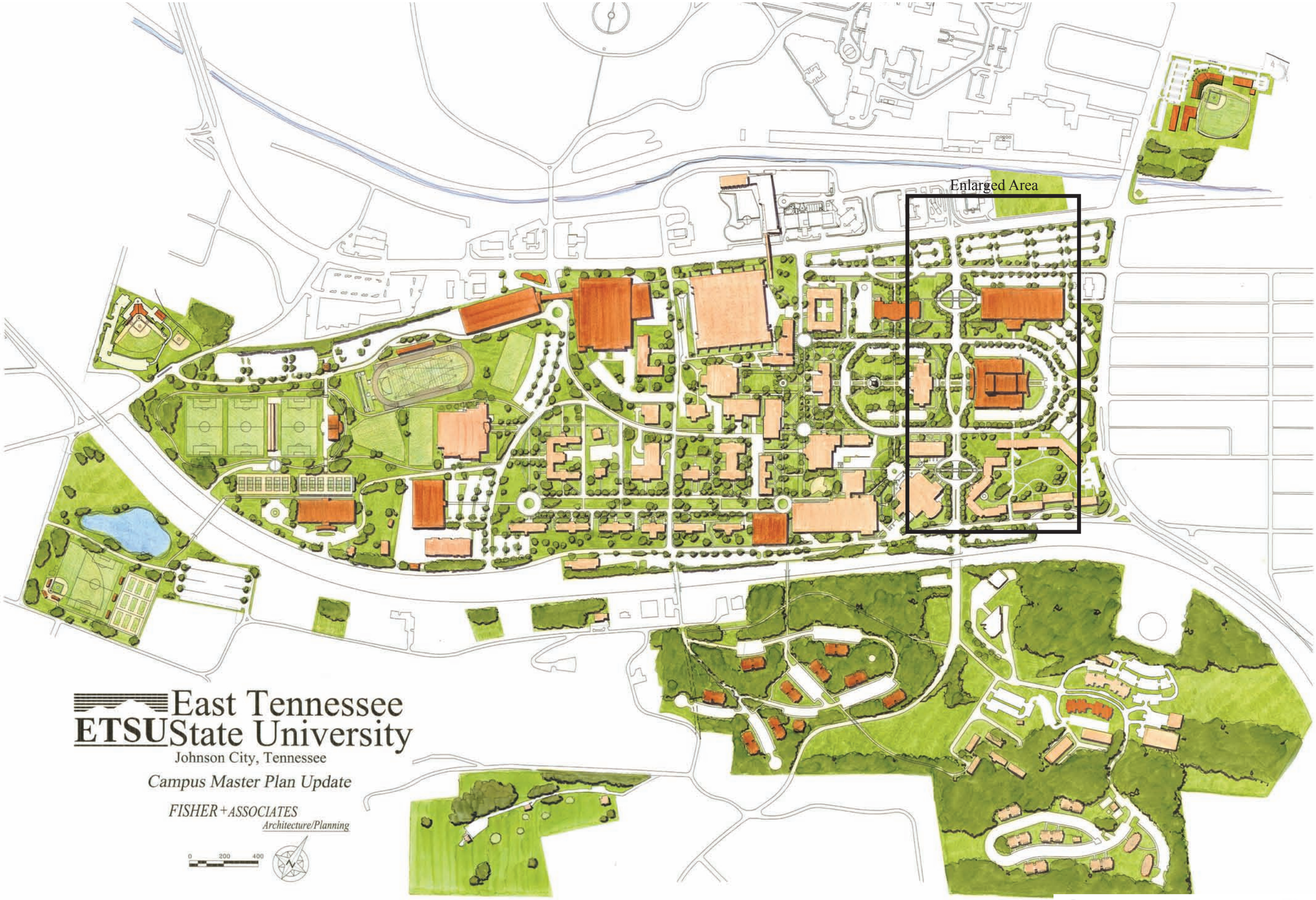
Option B provides the opportunity to centralize the parking structure between the new housing, library, existing historic core and new Fine Arts Center. The sitting of the Fine Arts Center on the Northeast corner of the campus allows visual exposure of the facility alone State of Franklin as well as University Parkway.



OPTION A



OPTION B


Enlarged Area
East Tennessee
ETSU State University
Johnson City, Tennessee
Campus Master Plan Update
FISHER + ASSOCIATES
Architecture/Planning
0
200
400
N

ATHLETIC MASTER PLAN

OVERVIEW

East Tennessee State University has embarked on an ambitious 10 year plan to build athletic facilities that will set the foundation for future excellence. This plan will allow all athletic teams the opportunity to play on campus, will upgrade current on-campus facilities to a NCAA Division I level, and will guarantee that all teams have excellent facilities to entertain fans, to recruit top student athletes and to compete at national levels. The Warren-Greene Golf Center was the first facility of this ambitious plan to be completed and will be followed by the construction of a Soccer Stadium that will become home to both Men's and Women's Soccer. Now under construction is a Softball Stadium that was able to host NCAA Regional level events. Future projects consist of a Baseball Stadium, an indoor/outdoor Tennis Center and an outdoor Track Complex. The culmination of the Athletic Master Plan will be an Arena for the basketball program.

WARREN-GREENE GOLF CENTER

The Warren-Greene Golf Center provides a place for the ETSU men's and women's golf teams to develop and enhance their skills. The exterior practice area was designed by world renowned golf architect Tom Fazio. On a 14-acre site, it includes six target greens, two bentgrass greens (one for putting and one for short-game work), two tee areas, and four bunkers. The accompanying 3,000 sq. ft., two-story clubhouse, contains coaches' offices, meeting rooms, the Hal Morrison Hall of Fame room, players' lounge, two indoor hitting bays, and an observation deck.

THE ARENA

The Arena will provide a new venue for Buccaneer basketball games as well as the ability to host a wide variety of other events allowing it to be a true resource for both the University and the City of Johnson City.

The Arena will provide seating arrangements for 8,400 spectators for basketball and other sporting events with the flexibility of seating 10,000 for events such as commencements, concerts and family shows.

The basketball and volleyball practice facility and athletic department offices will be located on the western end of the Arena, with direct access to the Arena. The practice facility will also have over 1,000 retractable seats for use during home volleyball games. Sports medicine as well as strength and conditioning areas will be located within the Arena.

A new 1,000 car parking garage is recommended in association with the development of the Arena. The parking deck would also create additional parking options for students, faculty and staff.

BASEBALL STADIUM

Baseball at East Tennessee State University has seen its share of success; however, like a lot of Buccaneer programs, it is still searching for that true home on campus. For years the Johnson City Cardinals and the Buccaneers have worked together sharing the same city-owned field.

The new Baseball Stadium will be designed to maximize fan experience while providing both teams with the field and lighting to meet minor league standards. Facilities including dugouts, clubhouses and practice facilities will be designed as well to meet minor league requirements. Bullpens and hitting tunnels will be easily accessible from the dugouts and clubhouses.

The stadium architecture is designed to unite the architecture of the university and the urban connection to downtown Johnson City. It will have permanent seating for approximately 3,000 to meet the minimum standards for minor league requirements with options to expand. Luxury boxes will be available for both ETSU and the Johnson City Cardinals. The design also calls for various retail opportunities such as team stores and restaurants to enhance activities for ETSU fans.


Baseball Stadium
Memorial Center
Softball Stadium
Basketball Arena & Convocation Complex
Track & Field
Soccer Complex
Intramural Field
Intramural Field
Tennis Complex
Warren-Greene Golf Center

ATHLETIC MASTER PLAN

SOCCER

The recently completed soccer complex on the western end of campus gives the ETSU women's soccer program a home and allows the team to play on campus for the first time since it's inception in 1997. It also is the home of the men's soccer program when which began play in the fall of 2007.

The complex is planned in two phases and will be developed to match spectator demand, funding and player development needs. Phase one provides the university with a stadium field serviced by quality irrigation and drainage systems. It is designed to have seating for approximately 1000 with 250 chair-back seats, large concourse, concessions, restrooms, equipment storage and press boxes for game-ops and media. The stadium field also allows for hillside seating on the east side berm. To the west side of the stadium there will be the first of two practice fields. The practices fields will meet the same playing specifications as the game field.

In phase two the second practice field will be added along with lighting for the stadium and practice fields. In phase two the major development will an entry plaza on the east side of the stadium field and the addition of a team building shared by both soccer and track programs. The building will house storage, locker rooms, training room, equipment room, coaches' offices and meeting rooms. On the stadium side it will be fronted by the "Pathway to Excellence", a concourse and walk way that will transverse the west end of the campus and lead from parking to the tennis center, connecting the soccer, track and tennis complexes.

SOFTBALL STADIUM

Softball, the newest addition to the East Tennessee State University athletics department was completed in the Fall of 2008.

The new stadium was constructed to seat approximately 500 spectators, with 150 chair back seats. The concourse provides access to tickets, concessions and restrooms. The playing field lighting was designed to meet all NCAA specifications. Dugouts with attached storage and restrooms have direct access to bullpens and the playing field. A practice infield was also constructed to meet the same specifications as the game field in order to provide the team with expanded practice opportunities.

An additional future phase will include a new press box and team building overlooking the stadium, housing indoor hitting tunnels, locker rooms, equipment rooms, training rooms, team room and coaches offices. The addition of this stadium has given ETSU the ability to host conference and regional level tournaments.

TENNIS CENTER

The new indoor/outdoor tennis center on the southwest end of campus will provide a training and competitive venue for the ETSU men's and women's tennis programs. In addition, it will give the local tennis community a club for instruction, social and league play, and tournaments. Twelve outdoor lighted courts will accommodate simultaneous team matches for the Bucs and Lady Bucs during the day or at night as well as provide adequate courts to host invitational, conference, and regional events. Six indoor courts give both the college teams and club members the opportunity for year-round practice, uninterrupted by inclement weather.

The indoor tennis center will house a hall of fame lobby and club pro shop, team and member locker rooms, and coaches' offices on the lower level and a spectator gallery on the upper level leading to an outdoor viewing balcony. Terraced on several levels, the twelve outdoor courts will maximize the topography of the hillside to create a club patio, stadium courts, and other gallery areas.

Access to the center will be provided by an entrance from Seehorn Drive with designated parking on the South or the pedestrian plaza leading from the soccer and track complexes from the North.

TRACK & FIELD

The track and field facility will become the home of one of East Tennessee State University's most heralded programs. The track and cross country teams have produced more Champions and All-Americans than any other program, including an Olympic Gold Medalist.

The facility will be a track specific venue. It will consist of nine lanes, two long jump pits, two triple jump pits, steeple chase, pole vault pits, and throw areas.

The amenities of the track venue will include a concourse with concessions and restrooms, press box and officials lounge over looking the track. The track and soccer building will provide storage, locker rooms, training room, equipment room, coaches' offices and meeting rooms at track level.

RESIDENTIAL

The Housing Master Plan is a campus-wide focus to evaluate the aging campus residence halls and provide recommendations regarding their future use. In December 2002, ETSU completed a comprehensive plan for housing and residence life conducted by Anderson Strickler, LLC. The most recent study of these observations and recommendations lays out a plan for an economic model of renovation and new construction over a period of 7-8 years ending in the year 2014. The result of this plan will provide 3,138 beds with improved configurations by 2014. Existing residence halls that will not be use for housing will be repurposed for renovation into new administrative or faculty offices.

The proposed areas for residential renovation and new construction respond to the existing well-defined residential groups on the east and west ends of campus as well as the desire to create an alternative to dormitory units with apartment or family type housing located on outlying University-owned land.

The Housing Master Plan reinforces the existing self-contained east and west residential complexes in close proximity to common and academic facilities. The newly completed Governors Hall and Centennial Hall work in concert with the Mack Davis Apartments to create an outdoor courtyard for student activities.

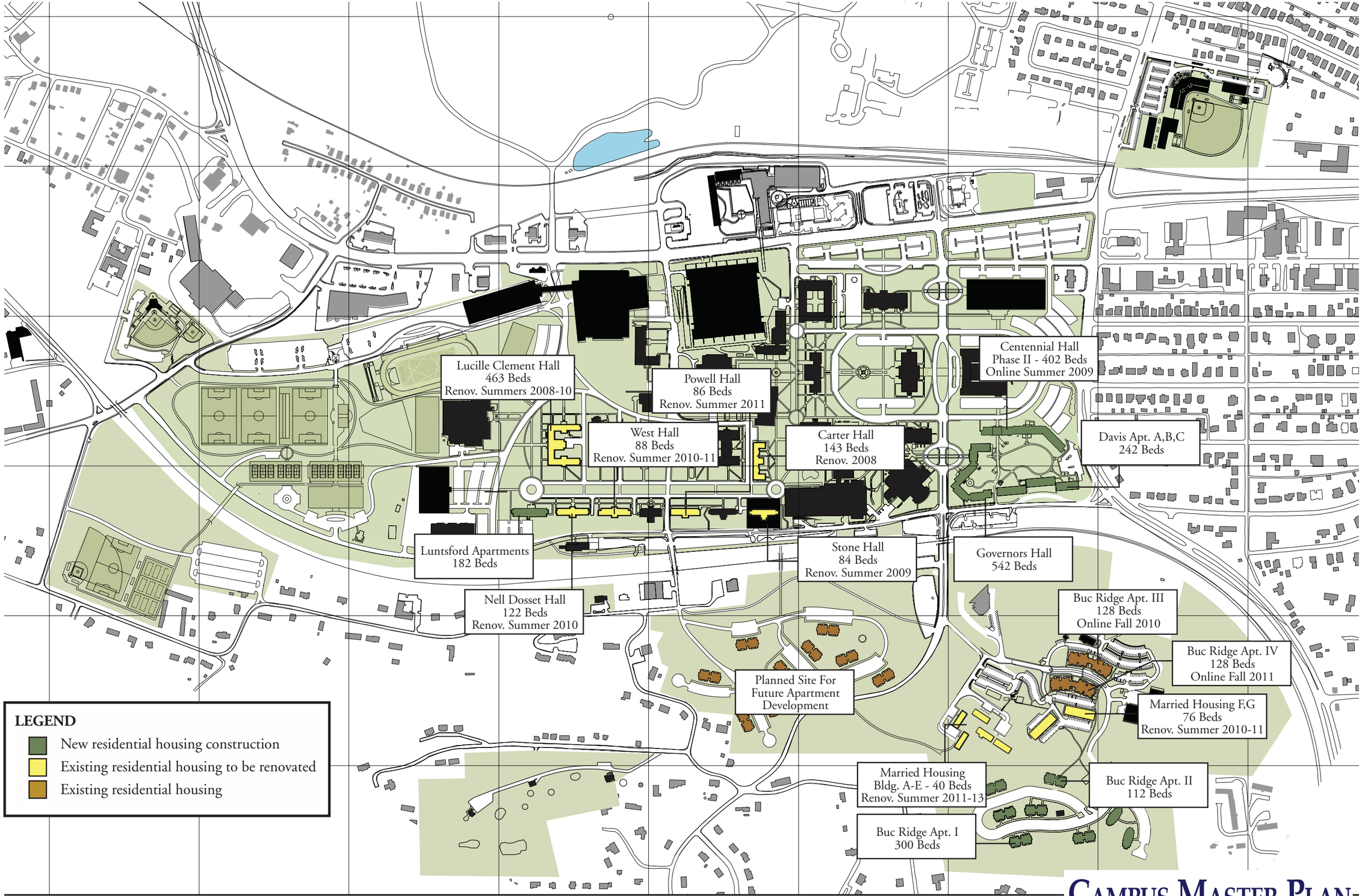
EAST TENNESSEE STATE UNIVERSITY
SUMMARY OF PROPOSED BED COUNTS

	Beds	Fall 07	Spr 08	Sum 08	Fall 08	Spr 09	Sum 09	Fall 09	Spr 10	Sum 10	Fall 10	Spr 11	Sum 11	Fall 11	Spr 12	Sum 12	Fall 12	Spr 13	Sum 13	Fall 13	Spr 14	Sum 14	Fall 14
Mack Davis A, B, C	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
Carter	143	-	-	-	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143
Stone	84	84	84	84	84	84	-	84	84	-	84	84	84	84	84	84	84	84	84	84	84	84	84
Lucille Clement	463	463	463	-	463	463	-	463	463	-	463	463	463	463	463	463	463	463	463	463	463	463	463
Luntsford	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182	182
Powell	86	86	86	86	86	86	86	86	86	86	86	86	-	86	86	86	86	86	86	86	86	86	86
West	88	88	88	88	88	88	88	88	88	-	88	88	-	88	88	88	88	88	88	88	88	88	88
Nell Dossett	122	122	122	122	122	122	122	122	122	-	122	122	122	122	122	122	122	122	122	122	122	122	122
Governors Hall	542	542	542	542	542	542	542	542	542	542	542	542	542	542	542	542	542	542	542	542	542	542	542
Centennial Hall	402	-	-	-	-	-	402	402	402	402	402	402	402	402	402	402	402	402	402	402	402	402	402
Married Housing F, G	76	76	76	76	76	76	76	76	76	-	76	76	76	76	76	76	76	76	76	76	76	76	76
Married Housing A - E	40	40	40	40	40	40	40	40	40	40	40	40	-	40	40	-	40	40	-	40	40	40	40
Buccaneer Ridge - Phase I	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
Buccaneer Ridge - Phase II	112	112	112	112	112	112	112	112	112	112	112	112	112	122	112	112	112	112	112	112	112	112	112
Buccaneer Ridge - Phase III	112	-	-	-	-	-	-	-	-	-	112	112	112	112	112	112	112	112	112	112	112	112	112
Buccaneer Ridge - Phase IV	128	-	-	-	-	-	-	-	-	-	-	-	-	128	128	128	128	128	128	128	128	128	128
Grand Total		2337	2337	1874	2480	2480	2017	2882	2806	2676	3010	3010	2676	3138	3138	3010	3138	3138	3098	3138	3138	3138	3138

LEGEND

- New residential housing construction
- Existing residential housing to be renovated
- Existing residential housing

Centennial Hall Rendering


Lucille Clement Hall
463 Beds
Renov. Summers 2008-10
Powell Hall
86 Beds
Renov. Summer 2011
West Hall
88 Beds
Renov. Summer 2010-11
Carter Hall
143 Beds
Renov. 2008
Centennial Hall
Phase II - 402 Beds
Online Summer 2009
Davis Apt. A,B,C
242 Beds
Luntsford Apartments
182 Beds
Stone Hall
84 Beds
Renov. Summer 2009
Governors Hall
542 Beds
Nell Dosset Hall
122 Beds
Renov. Summer 2010
Buc Ridge Apt. III
128 Beds
Online Fall 2010
Buc Ridge Apt. IV
128 Beds
Online Fall 2011
Planned Site For
Future Apartment
Development
Married Housing F,G
76 Beds
Renov. Summer 2010-11
Married Housing
Bldg. A-E - 40 Beds
Renov. Summer 2011-13
Buc Ridge Apt. II
112 Beds
Buc Ridge Apt. I
300 Beds
LEGEND
New residential housing construction
Existing residential housing to be renovated
Existing residential housing

VEHICULAR & PEDESTRIAN CIRCULATION

NEW CEREMONIAL ENTRANCES

In addition to the major internal open spaces, campus edges and entrances along University Parkway and State of Franklin Road will be given clear and unified definition through new landscape treatment. The Plan seeks to re-establish a formal, clearly defined entry off University Parkway. A reduction in the number of existing entrances off University Parkway will improve internal circulation and help clarify the main east entrance to the campus. The existing Public Safety building is proposed to be relocated to the new parking garage. The existing entrance off State of Franklin Road opposite the Mountain Home entrance should be upgraded and improved to strengthen the connection to the Mountain Home Campus and provide a primary entrance to the western part of campus adjacent to large surface parking areas and the proposed new parking Garage. The campus entrance at Lake Street will be the main entrance off State of Franklin Road.

VEHICULAR CIRCULATION

Currently within the central campus, north-south vehicular through-movement is limited to University Drive and Lake Street. The new master plan establishes a new road from the campus entrance across from the VA through the campus to the boundary road or Seehorn Drive. This would remove a number of confusing intersections.

Vehicular circulation in the historic core of the Campus would be reduced providing visitors the opportunity to experience the history heart of the Campus by car while allowing access by faculty and staff.

Removal of parking and the development of traffic calming elements along Lake Street with discourage through traffic and unite the eastern third of campus of with the historic core.

The new ceremonial entrance along University Parkway would provide visitors, faculty, staff and students access to the historic loop road that would provide access to most activities within the historic core and eastern third of the campus.

A new vehicular drop-off has been designed north of the University School along with additional parking which should help reduce the conflicting traffic patterns and congestion caused by the drop-off and picking up of students.

The principal campus access point on Stout Drive (from either West Locust Street or West Pine Street) affords east-west access to/from the center of campus, but otherwise, efficient east-west access routes are limited to the northern and southern edges of the central campus (i.e., West Walnut Street and Boundary Road, respectively).

The central campus is otherwise provided with an array of one and two-directional roadways whose principal functions are to provide access to parking areas. Their directional orientations prove inefficient from cross-campus vehicle movement, and disrupt to some degree on-campus pedestrian circulation. Sherrod Drive has in part been closed to vehicle movement in order to address its pedestrian impacts. The resulting "pedestrian mall" of approximately 800 feet in length has effectively created a vehicle-free linear zone in the core of the campus. During the last decade portions of other on-campus roads such as Field Drive and Ross Drive have been closed as well.

The University maintains a shuttle service from several on-campus parking lots to the academic core. The service is free to all members of the campus population and should be supported and enhanced to further reduce traffic on campus.

In addition to the intra-campus shuttle services, on-campus transit services are also provided by the Johnson City Transit System, which operates five extensive routes from downtown Johnson City. The most extensive route serves the ETSU campus, providing service between the campus and the downtown and other points in the vicinity of Johnson City. ETSU's contract with the Johnson City Transit Authority provides for student to travel without fee.

PEDESTRIAN CIRCULATION

The focus of the pedestrian walkway system is to enhance the east-west movement of pedestrians across campus from the new Fine Arts Building on the eastern edge of campus to the Physical Activities Building on the western side of campus.

Development of the pedestrian axis from the Fine Arts Building through Dossett Hall and the new carillon, Gilbreath Hall to Memorial Hall would constitute the new "historical mall"

At Memorial Hall a new set of quadrangles south to Carter Hall should be developed with the demolition of the Old College of Medicine. This would provide a connection to a newly developed Dossett Mall extending to the proposed West Hall. The development of a new quadrangle in front of Lucille Clement would provide the final pedestrian connection to the Physical Activities Building.

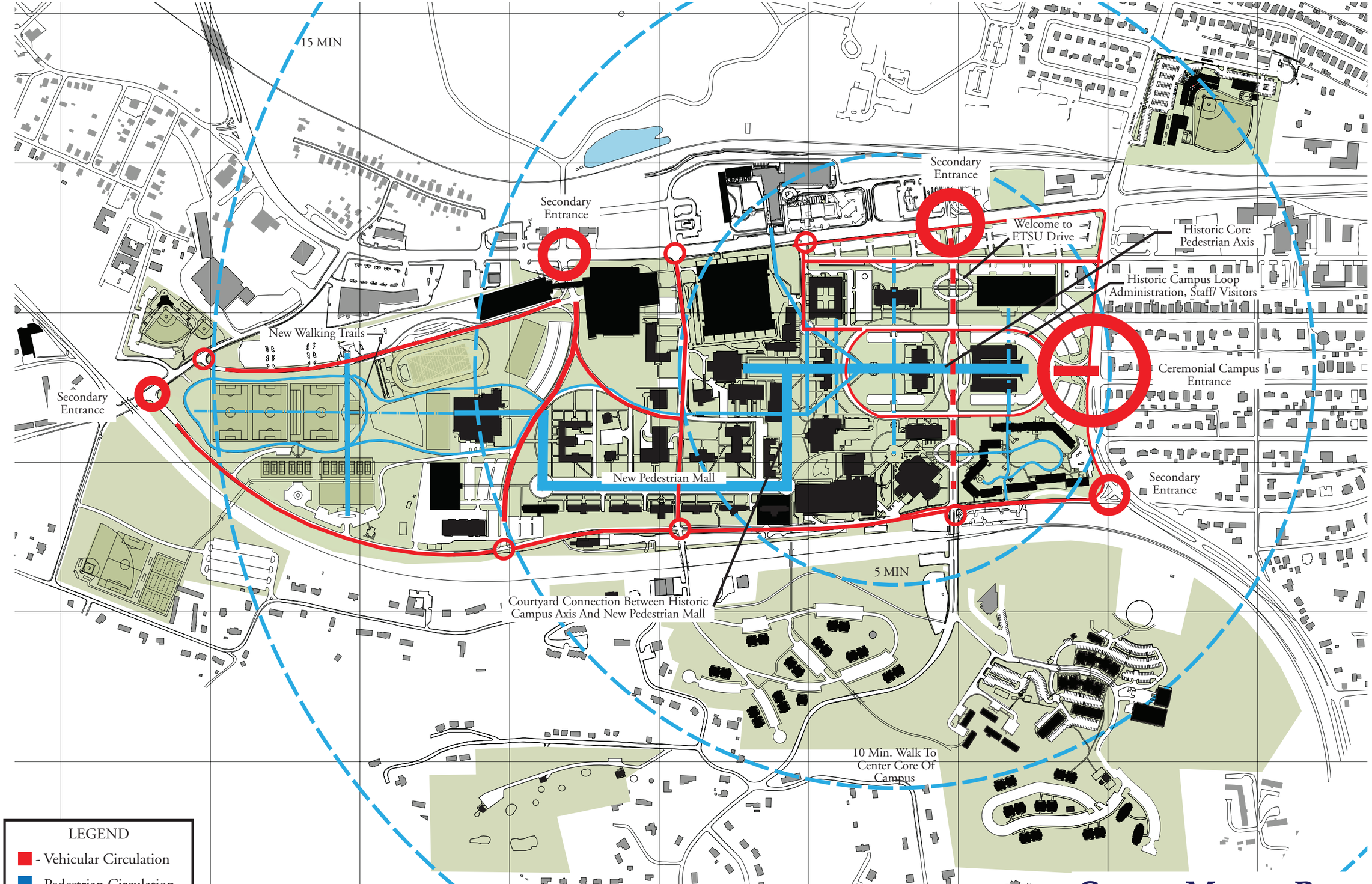
The development of a new walking path would tie the Physical Activities Building to all of the recommended athletic facilities.

Special pedestrian features developed within the Master Plan would include a pedestrian axis and ellipse hardscape feature providing pedestrian circulation from the proposed eastern residential complex to the Library entrance plaza. The development of a circular walk system tying Gilbreath, Alexander, Dossett and Stout halls together and symbolically reinforcing the heart of the historic core of the Campus. The axial walkways of Gibreath and Dossett Halls with the axial walkway of Alexander and the center of the Library entrance plaza would define the center of this circular walk. The "Pathway to Excellence" is also proposed to provide pedestrian access from the parking area new shuttle pavilion north of Jack Vest Drive to the Tennis Center.

SERVICE

Buildings are serviced from a variety of internal roadways and service lanes. Boundary Road services a majority of the facilities in Culp Center and the Central Library. Stout Drive is a service access to the Culp Center Auditorium, the former library, Reece museum and a portion of Dossett Hall. Brown and Alexander Halls are served from adjacent parking lots. Sherrod Drive is the service access for the building row composed of Ball, Mathes, Burleson, Carson and Gilbreath Halls, and Memorial Center east. Ross and Campus Drive serve Wilson, Carter, and Lamb Halls. University Drive is the service access for Memorial Center, Memorial Hall, the Power Plant and a portion of Warf-Pickel Hall.

Dossett Drive north and south serves the remaining buildings by providing either direct access to Hutcheson Hall and Bond Building or forming service lanes for all the dormitories and Warf-Pickel, Clark, Wilson-Wallis, Earnest Home and Clement Hall.


15 MIN
Secondary Entrance
Secondary Entrance
Welcome to ETSU Drive
Historic Core Pedestrian Axis
Historic Campus Loop Administration, Staff/ Visitors
New Walking Trails
Secondary Entrance
Ceremonial Campus Entrance
New Pedestrian Mall
Secondary Entrance
5 MIN
Courtyard Connection Between Historic Campus Axis And New Pedestrian Mall
10 Min. Walk To Center Core Of Campus
LEGEND
- Vehicular Circulation
- Pedestrian Circulation

EXISTING MAIN CAMPUS PARKING PLAN

PARKING

Parking is currently accommodated throughout the campus in surface lots. According to the latest space information compiled by ETSU, the campus is presently provided with a total of approximately 5,933 spaces in over forty lots. These spaces are defined by the following user types: Faculty/Staff, Student, Undesignated, Carpool, Center for Physical Activity and Time Restricted Parking.

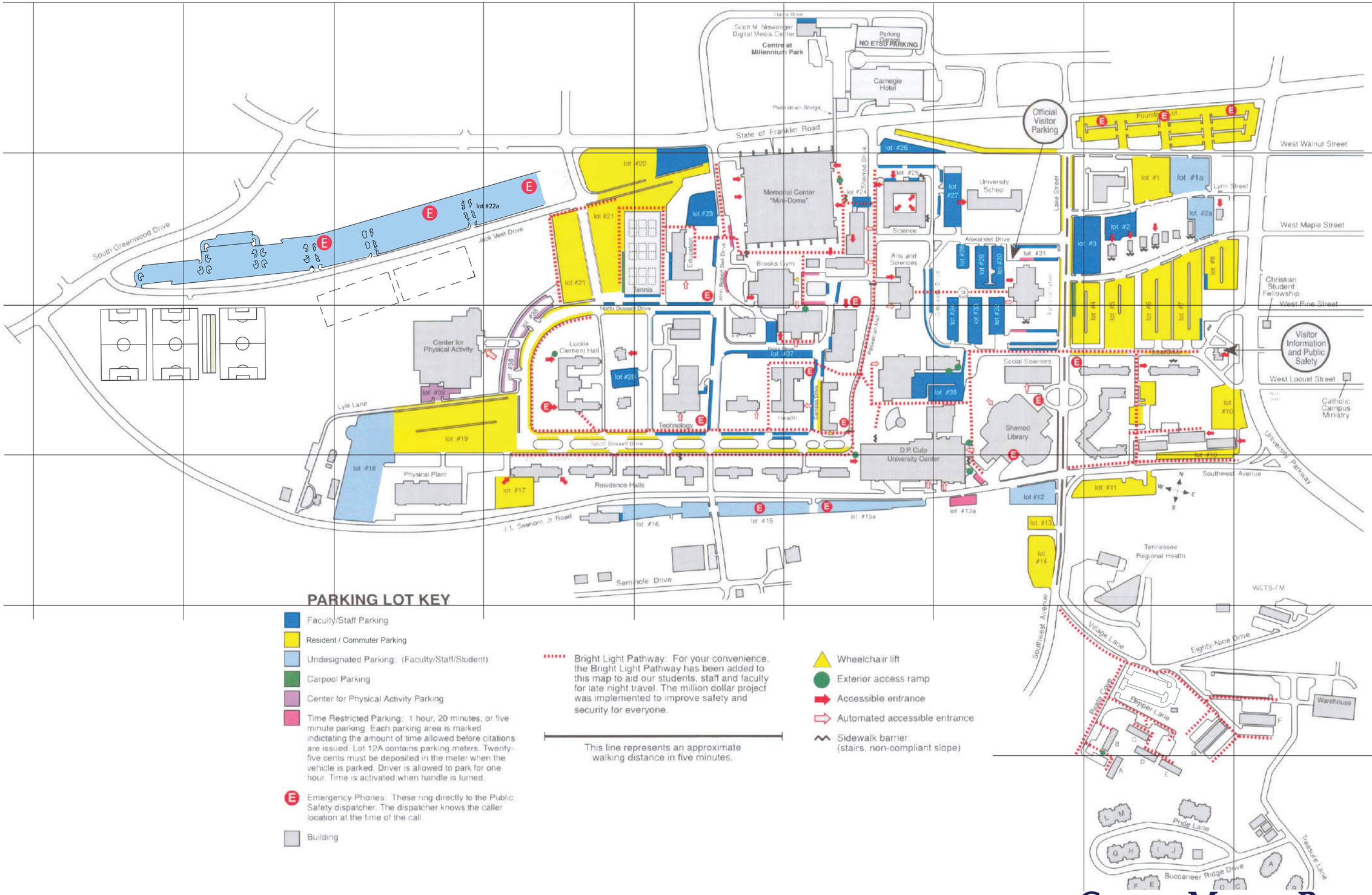
PARKING SPACES ON CAMPUS - SEPT. 2007

Lot No.	Staff	Student	Open	Other	Total
1	11	64	-	2	77
1A	42	42		-	84
2	53	-	-	3	56
2A	37	37	-	7	81
3	96	-	-	-	96
4	-	105	-	-	105
5	-	137	-	-	137
6	-	142	-	-	142
7	12	152	-	3	167
8	10	90	-	-	100
9	-	-	-	-	-
10	-	113	-	8	121
11	-	78	-	1	79
12	-	65	-	-	65
12A	-	-	-	19	19
13	-	33	-	-	33
14	-	122	-	-	122
15	-	125	-	-	125
15A	-	-	65	-	65
16	-	81	-	3	84
17	-	69	-	-	69
17A	-	-	43	-	43
18/19	-	408	211	-	619
20	29	-	-	3	32
21	11	495	-	30	536
22	63	127	-	-	190
22A	-	-	709	2	711
23	50	-	-	-	50
24	3	-	-	4	7
25	1	-	25	5	31
26	21	-	-	-	21
27	53	-	-	5	58
28	22	-	-	-	22
29	43	-	-	-	43

Lot. No.	Staff	Student	Open	Other	Total
30	39	-	-	-	39
31	35	-	-	5	40
32	72	-	-	1	73
33	50	-	-	-	50
34	45	-	-	-	45
35	39	-	-	7	46
Foundry Lot	-	398	-	4	402
Ross Drive	96	-	-	18	114
Memorial Hall Cir.	12	-	-	14	26
Basler Lot A	-	36	-	2	38
Basler Lot B	-	29	-	2	31
Culp Center Lot A	-	-	3	8	11
Clup Center Lot B	-	-	-	9	9
Clement Hall	-	-	10	2	12
Tennis Courts	14	-	4	29	47
Warf-Pickel Hall	-	-	8	3	11
Hutcheson Hall	17	-	-	1	18
Pirate Cove	-	-	69	2	71
Residences	49	49	72	4	174
Buccaneer Ridge	-	-	463	23	486

On Street Parking	Staff	Student	Open	Other	Total
John Robert Bell	72	-	-	23	95
Jack Vest Drive	-	-	46	-	46
Sherrod Drive	-	-	-	4	4
Unknown Street	-	-	19	1	20
Lake Street	-	-	125	-	125
Maple Street	-	-	30	-	30
Stout Drive	-	-	27	5	32
Gilbreath Drive	32	-	-	7	39
Walnut Drive	-	-	64	-	64
N. Dosset Drive	41	99	-	8	148
S. Dosset Drive	32	86	43	29	190

Off Street Parking Total 5,933
On Street Parking Total 793
ETSU System ParkingTotal 6,726



PARKING LOT KEY

- Faculty/Staff Parking
- Resident / Commuter Parking
- Undesignated Parking: (Faculty/Staff/Student)
- Carpool Parking
- Center for Physical Activity Parking
- Time Restricted Parking: 1 hour, 20 minutes, or five minute parking. Each parking area is marked indictating the amount of time allowed before citations are issued. Lot 12A contains parking meters. Twenty-five cents must be deposited in the meter when the vehicle is parked. Driver is allowed to park for one hour. Time is activated when handle is turned.
- Emergency Phones: These ring directly to the Public Safety dispatcher. The dispatcher knows the caller location at the time of the call.
- Building

Bright Light Pathway: For your convenience, the Bright Light Pathway has been added to this map to aid our students, staff and faculty for late night travel. The million dollar project was implemented to improve safety and security for everyone.

This line represents an approximate walking distance in five minutes.

- Wheelchair lift
- Exterior access ramp
- Accessible entrance
- Automated accessible entrance
- Sidewalk barrier (stairs, non-compliant slope)

MAIN CAMPUS PARKING MASTER PLAN

PARKING

The long-range goal is to remove parking from the academic core to perimeter locations and provide more green space around the historic core of the campus enhancing the pedestrian and aesthetic qualities of the campus.

The proposed parking plan is a function of long-term growth and displacement. New parking should be staged according to improvements within the core. The Plan proposes an extension of the west campus surface lot to accommodate an additional 281 automobiles to provide for athletic events.

The development of a new 1,000 car parking garage at the western entrance to the campus along State of Franklin across from the VA would provide parking for athletic events including events at the Arena as well as for commuter students. The development of new surface lots adjacent to the Arena would also provide additional parking.

The construction of a New 650 Car Parking Garage and newly defined surface lot north of the Wilbur Bond Building would provide parking for residential students living on the western side of campus as well as commuter students entering off of Seehorn drive.

Construction of a New 350 Car Parking Garage next to the D.P. Culp Center would provide for parking in an area that is severely constrained.

The development of a new surface parking north of Alexander Hall would provide parking for the University School as well as centralized parking for faculty and staff of the University.

Reduction of parking in areas between Gilbreath and Dossett Halls would enhance the aesthetics of this area while still providing some visitor, staff and faculty parking.

Construction of a new 1,000 car Parking Garage on the eastern third of campus along with the new development of surface lots around the new ceremonial entrance and the Fine Arts Building would provide for residential and event parking on the this side of the campus

It is proposed that parking for faculty and staff continue to be located within a 5-minute walk of the academic core. Student parking would be accommodated in peripheral locations with resident storage parking located most distant from the campus core.

Parking garages are recommended as a land-conserving, land-use strategy necessary for University expansion. Without garages, land requirements for a 3,000 surface parking spaces would be 20-24 acres. Garages also enhance the campus image by reducing the visibility of parked cars and by increasing the amount of parking near the central camps.

As remote parking lots are developed, it is critical that they be lighted, fenced and equipped with emergency phones. It is recommended that the existing shuttle service be extended and expanded to provide additional hours of service to students parking in these peripheral lots.

The Diagram on this page shows the existing parking lots that would be displaced through the development of the Master Plan. The diagram compares the net loss/gain of parking in relationship to the proposed new parking areas vs. those parking areas displaced.

PARKING SPACES ON CAMPUS - SEPT. 2007

Lot No.	Staff	Student		Other	Total
1	11	64	-	2	77
1A	42	42		-	84
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4	-	105	-	-	105
5	-	137	-	-	137
6	-	142	-	-	142
7	12	152	-	3	167
8	10	90	-	-	100
9	-	-	-	-	-
10	-	113	-	8	121
11	-	78	-	1	79
12	-	65	-	-	65
12A	-	-	-	19	19
13	-	33	-	-	33
14	-	122	-	-	122
15	-	125	-	-	125
15A	-	-	65	-	65
16	-	81	-	3	84
17	-	69	-	-	69
17A	-	-	43	-	43
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20	29	-	-	3	32
21	11	495	-	30	536
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22A	-	-	709	2	711

Lot. No.	Staff	Student	Open	Other	Total
23	50	-	-	-	50
24	3	-	-	4	7
25	1	-	25	5	31
26	21	-	-	-	21
27	53	-	-	5	58
28	22	-	-	-	22
29	43	-	-	-	43
30	39	-	-	-	39
31	35	-	-	5	40
32	72	-	-	1	73
33	50	-	-	-	50
34	45	-	-	-	45
35	39	-	-	7	46
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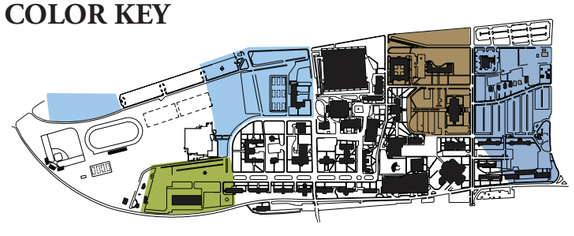
Basler Lot B	-	29	-	2	31
Culp Center Lot A	-	-	3	8	11
Clup Center Lot B	-	-	-	9	9
Clement Hall	-	-	10	2	12
Tennis Courts	14	-	4	29	47
Warf-Pickel Hall	-	-	8	3	11
Hutcheson Hall	17	-	-	1	18
Pirate Cove	-	-	69	2	71
Residences	49	49	72	4	174
Buccaneer Ridge	-	-	463	23	486

*Colored areas indicate parking lots to be altered by Master Plan

Campus Parking (Sept. 2007)	5,933 Spaces
Parking Added From 2010 Master Plan	2502 Spaces
Total Campus Parking With Master Plan	**8,435 Spaces**

COLOR KEY



New Parking Garage 1,000 Cars

New Surface Parking

New Parking Garage 1000 Cars

New Parking Garage 650 Cars

New Parking Garage 350 Cars

350 206 150 166 94 59 112 194 61 113 109 39 12 175 67 45 20 20 157 75 36 49

LEGEND

- New Parking Garages
- New Surface Parking
- Existing Surface Parking
- (281) - Surface Parking Numbers

ACQUISITION & DISPOSITION PLAN

Eastman Farm Property - 142 Pickens Road, Kingsport

Gray Fossil Site - Sulphur Springs, TN

ACQUISITIONS AND DISPOSITION

In view of the long-term, consideration should be given towards the acquisition of adjacent properties which may become available. As areas around the campus continue to grow and development increases, the opportunities to add acreage to the campus in a contiguous manner will become greatly diminished. The physical growth of ETSU's Main Campus is already limited by its geographical position. Bounded to the North by commercial property and the railroad; to the south by the railroad; to the east by the tree streets neighborhood and to the west by commercial and residential properties; acquisitions of large contiguous tracks are unlikely.

The following drawing provides updated information on an existing campus map for potential acquisitions and possible dispositions of property by ETSU. Acquisitions of one residential properties within the east side of campus would allow for the development of the ceremonial entrance, Fine Arts Center and New Parking Garage on the east side of campus. Acquisition of two commercial properties within the boundaries of the main campus would provide full control of the boundary of the campus. Acquisition of a commercial property in the area of the proposed site for the Baseball Stadium would provide addition control and flexibility to the project. For use by Continuing Studies, the University plans to acquire approximately two floors of the proposed new Business Tower located north of State of Franklin.

Property Acquisition

ETSU recently acquired the convenience store property on State of Franklin and adjacent to parking lot 22a. The land will be used for the construction of a new campus welcome and public safety building.

ETSU Foundation is interested in receiving the Eastman Farm as a donation from Eastman Chemical Co. The farm is located 13 miles northwest of the ETSU campus and is 72,000 Sq. ft. of quality research and office space including 14 fully equipped laboratories, service bay for lab services and supplies and safety features such as eye wash stations, emergency showers, etc.

In addition there are 24,500 sq. ft. of warehouse and storage facilities on 144 acres.

Foundation will lease to ETSU for a 10 year period with a 10 year renewal option at no cost with ETSU to pay all operating costs estimated to be $350,000 for the first year

While a final decision has not been made by ETSU on uses, potential uses include:

- Additional Laboratory space for biomedical and pharmaceutical research
- Field studies in honey bee behavior and insect ecology in Biological Science
- Use by the College of Business and Technology for product concept development and product prototyping, e.g. the development of novel surgical simulators
- Additional space for support of the ongoing studies at the Gray Fossil Site
- Potential additional space for studio arts such as sculpture, ceramics and painting
- Graduate student training in research laboratories
- Undergraduate training, field studies, studio arts, etc.

Growing need for additional space for entrepreneurial growth at the Innovation Lab to support the expansion of the research base, patent growth, and the development of potential partnership opportunities

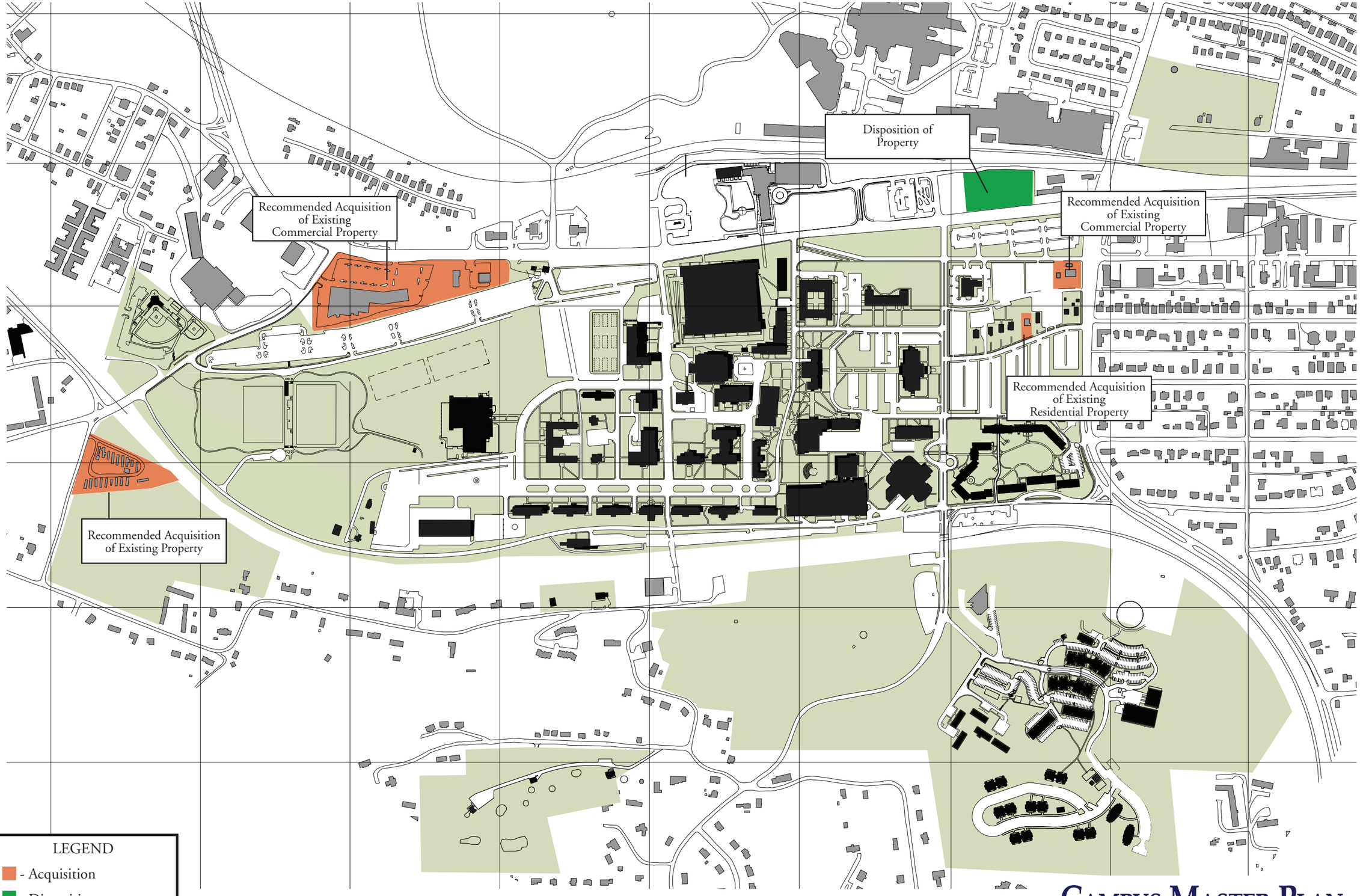
ETSU is also interested in acquiring a 14 acre tract adjacent to the fossil site for parking and use as a picnic area/park. The property also has potential as a future dig site on one small area within the tract.

An additional 2 acres tract adjacent to the west boundary of the dig site has been identified for acquisition due to the potential expansion of the existing dig site.

Property Disposition

Disposition of property currently owned by the University north of State of Franklin could be used to swap for desired land or sold with money to be used for other university needs. Disposition of the Kingsport Family Practice Center due to its inconvenient location and the poor condition of the facility will present the need to acquire another center close to other medical facilities

Shown on this drawing, there is the potential for a new right of way through the College Heights area that would be funded by the city.


Disposition of Property
Recommended Acquisition of Existing Commercial Property
Recommended Acquisition of Existing Commercial Property
Recommended Acquisition of Existing Residential Property
Recommended Acquisition of Existing Property
LEGEND
- Acquisition
- Disposition

EXISTING / LEASE PLAN - CoM / VA CAMPUS

MOUNTAIN HOME VETERANS ADMINISTRATION CAMPUS EXISTING / LEASE PLAN

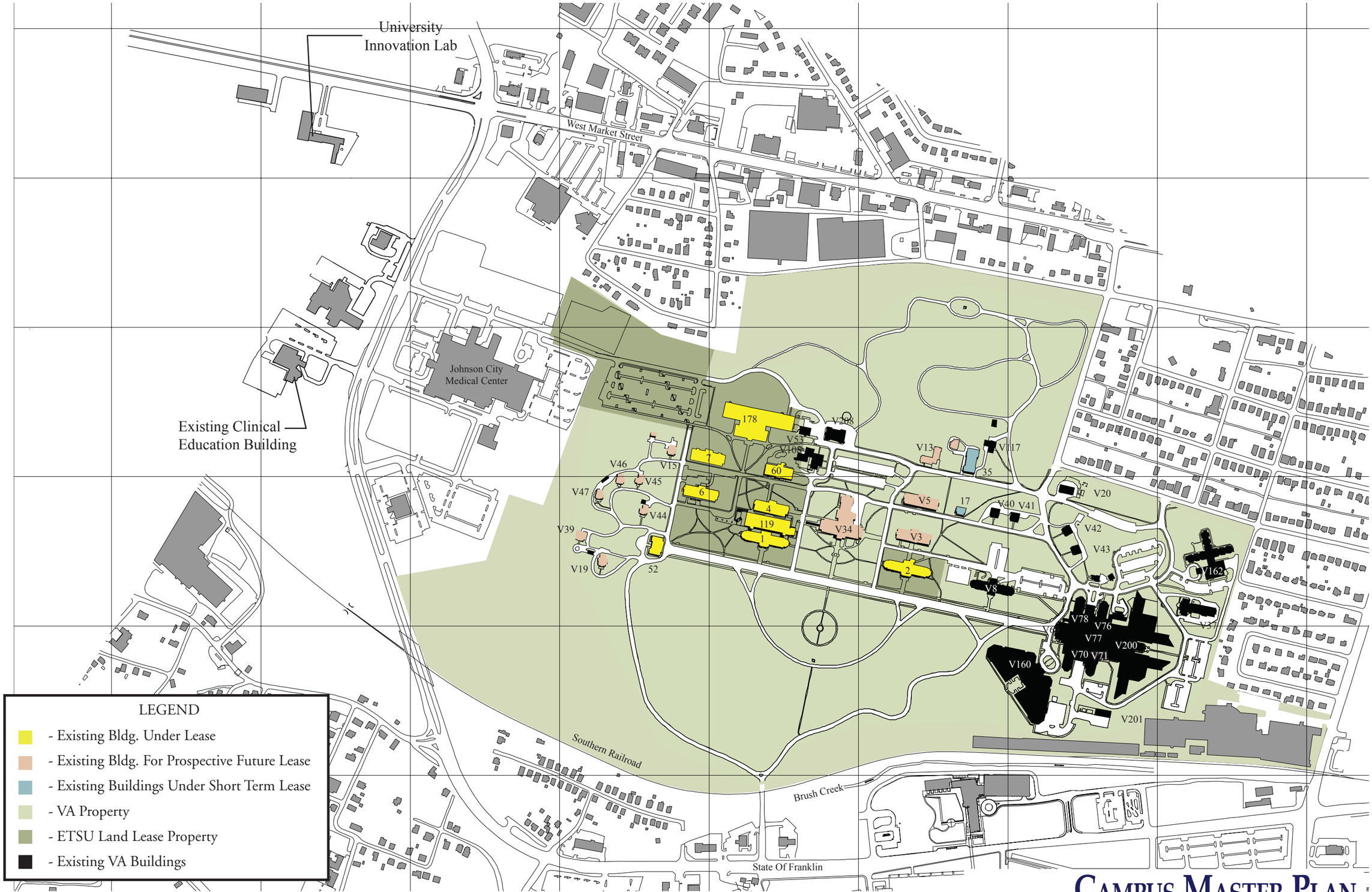
The following plan illustrates the existing Veterans Administration Mountain Home Campus. Through the signing of a 35 year enhanced use lease with the Veterans Administration which includes 31 acres, ETSU has been able to provide a home for the James H Quillen College of Medicine which includes the following existing historical structures; Buildings No. 1, 2, 4, 6, 7, 52 & 60. The construction of new facilities on the leased grounds includes the Medical School Lab Building (Building 119) and Stanton Gerber Hall (Building 178).

A short term lease has been signed which provides for the use of the Carnegie Lecture (Building 17) and the Memorial Hall Theater (Building 35).

Buildings being considered for prospective future lease include Buildings 3, 5, 34 and the residential homes on the west side of the campus.

Mountain Home VA Campus
V = VA Controlled Buildings

1	ETSU Medical School
2	ETSU Medical School / Physical Therapy / Speech & Audiology Research / Pharmacy
V3	VA Office / Education
4	ETSU Medical School Library
V5	VA Research Lab
6	Forensics
7	Pharmacy
V8	Aud. / Sph. AMM. SVC./ Fical
V10	Bandstand
V13	Chapel
V15	Hospital Guest House
V16	Single Quarters
17	Carnegie Library (Leased)
V19	Single Quarters
V20	Human Resource Management
V34	Museum / ETSU Labs / Bookstore / Eng. Shops / Canteen
35	Memorial Hall Theatre (Leased)
V36	Morgue
V37	Psych. Bldg.
V39	Duplex Quarters
V40	Resident Engineer
V41	Eng. Admin. Offices
V42	Eng. Planning / Design
V43	(Vacant)
V44	Single Quarters
V45	Single Quarters
V46	Single Quarters
V47	Single Quarters
52	ETSU Med. School Admin.
V53	U.S. Post Office
60	ETSU (Vacant)
V69	Hospital Admin. Bldg.
V77	Clinical Support Bldg.
V83	4-Car Garage
V85	2-Car Garage
V96	Flagpole
V98	3-Car Garage
V99	2-Car Garage
V103	Water Meter Valve House
V107	Water Tank
V108	Eng. Boiler Plant / Incinerator
V115	Main Electrical Switchgear
V116	Emer. Gen. Bldg.
V117	Nat'l Cemetery Admin.
119	ETSU Med. School Lab Bldg.
V120	Emer. Gen Bldg. 1,4,119
V160	Domiciliary / Primary Care
V161	Emer. Gen. Bldg. 160
V162	NHCU
178	ETSU Medical School Admin. / Basic Sciences
V200	Hospital
V201	Eng. Maint.
V204	Out-Patient Clinic / ER
V205	Laundry / Warehouse
V206	Grounds Keeping Facility
V207	MRI
V208	Esg. Co-Gen. Emergy. Ctr.
V209	ESG Thermal Stor. Tank



LEGEND

- Existing Bldg. Under Lease
- Existing Bldg. For Prospective Future Lease
- Existing Buildings Under Short Term Lease
- VA Property
- ETSU Land Lease Property
- Existing VA Buildings

MASTER PLAN - CoM / VA CAPMUS

MOUNTAIN HOME CAMPUS

Existing and proposed facilities for the James H. Quillen College of Medicine, Physical Therapy, and Pharmacy School occupy a portion of the Mountain Home Veterans Administration campus. The Mountain Home site, designed by James Freedlander in 1903, is significant for several reasons. The site was an early example of well planned government funded medical facility. The home was established as one of nine facilities to serve disabled union veterans of the Civil War. The continuity of use and character from founding to present is a rare and valued asset.

The simple and well ordered plan located hospital, patient and staff residences and support facilities on a broad southeast oriented plateau providing views over Brush Creek to the valley enclosing Buffalo Mountain ridge. The natural amenities of stream and mountain were complemented with extensive plantings and gardens. These amenities remain today as memorable qualities, readily recognized by visitors and residents as the Mountain Home park-like setting.

The consistent building style of French Renaissance-inspired ornamentation, uniform massing and rectilinear layout were significant factors contributing to the Mountain Home Campus character. Buildings are sited on extensive lawns at a consistent distance from the principal streets.

The significant factors of historic purpose, natural setting, and campus environment are the basic values which guide the proposed expansion of the enhanced lease agreement that has provided for nine buildings and 31 acres under the administration of the Medical School.

The Main focus of the Division of Health Sciences Master Plan is the recently completed renovation of Building No. 6 into the Regional Forensic Science Center and the renovation of Building No. 7 into the College of Pharmacy on the VA Campus. The Master plan proposes moving the Johnson City Family Practice Center from the Main Campus and constructing a new center on the VA Campus.

The Master Plan also calls for an addition to the existing University Innovation Lab as well as a Clinical Education Building II (10,000 sq. ft.) and a New Center for Experiential Learning (5,000 sq. ft.) located on the University Innovation Park Campus.

The Master Plan also calls for a new Family Practice Center (12,000 sq. ft.) in Kingsport as well the acquisition and renovation of an existing building in downtown Johnson City, Tennessee for the College of Nursing Downtown Clinic.

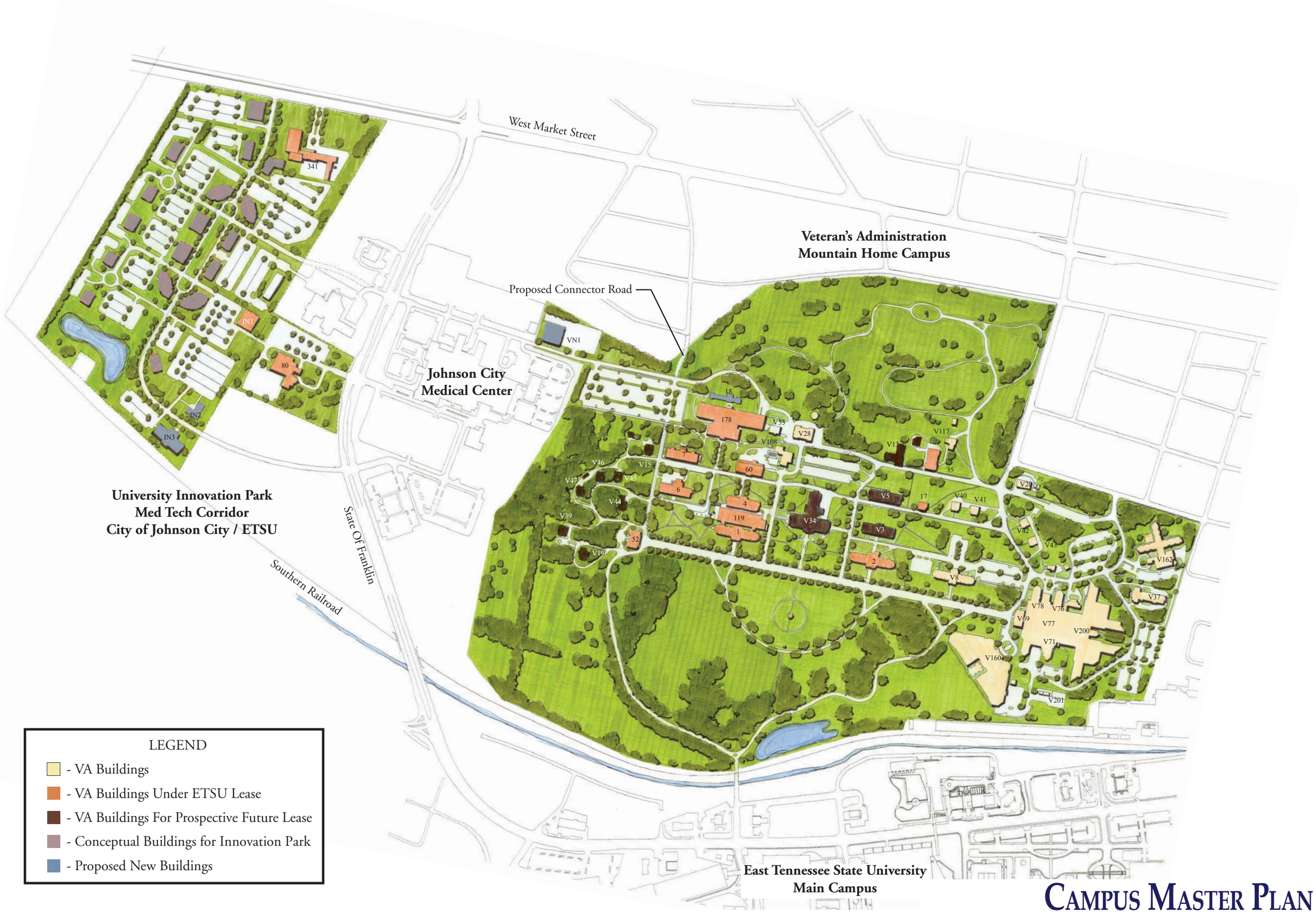
The College of Medicine desires to expand through the proposed expansion of the existing lease for additional buildings with the Veterans Administration.

LEGEND

V = VA Controlled Buildings
VN = VA Campus Proposed New ETSU Bldg.
IN = Innovation Park Proposed New Bldg.

1	ETSU Medical School
2	ETSU Medical School / Physical Therapy
V3	VA Office / Education
4	ETSU Medical School Library
V5	VA Research Lab
6	ETSU Forensics
7	ETSU College of Pharmacy
V8	Aud. / Sph. AMM. SVC./ Fical
V10	Bandstand
V13	Chapel
V15	Hospital Guest House (Leased)
V16	Single Quarters (Leased)
17	Carnegie Library (Leased)
18	CoM Student Center
V19	Single Quarters
V20	Human Resource Management
V24	New Student Center
V34	Museum / ETSU Labs / Bookstore / Eng. Shops / Canteen
35	Memorial Hall Theatre (Leased)
V36	Morgue
V37	Psych. Bldg.
V39	Duplex Quarters
V40	Resident Engineer
V41	Eng. Admin. Offices
V42	Eng. Planning / Design
V43	(Vacant)
V44	Single Quarters
V45	Single Quarters
V46	Single Quarters
V47	Single Quarters
52	ETSU Med. School Admin.
V53	U.S. Post Office
60	ETSU (Vacant)
V69	Hospital Admin. Bldg.
V77	Clinical Support Bldg.
80	Palma Robinson CEBI / ETSU Physcians & Associates
V83	4-Car Garage
V85	2-Car Garage
V96	Flagpole
V98	3-Car Garage
V99	2-Car Garage
V103	Water Meter Valve House
V107	Water Tank
V108	Eng. Boiler Plant / Incinerator
V115	Main Electrical Switchgear
V116	Emer. Gen. Bldg.
V117	National Cemetery Admin.
119	ETSU Med. School Lab Bldg.
V120	Emer. Gen Bldg. 1,4,119
V160	Domiciliary Primary Care
V161	Emer. Gen. Bldg. 160
V162	NHCU
178	ETSU Research Bldg.
V200	Hospital
V201	Eng. Maint.
V204	Out-Patient Clinic / ER
V205	Laundry / Warehouse
V206	Grounds Keeping Facility
V207	MRI
V208	Esg. Co-Gen. Emergy. Ctr.
V209	ESG Thermal Stor. Tank

341	Innovation Lab
VN1	Johnson City Family Practice Ctr.
IN1	Cardiology CEB Building
IN2	Ctr. For Experiential Learning
IN3	University High School



LEGEND

- VA Buildings
- VA Buildings Under ETSU Lease
- VA Buildings For Prospective Future Lease
- Conceptual Buildings for Innovation Park
- Proposed New Buildings

MASTER PLAN - UNIVERSITY INNOVATION PARK

Central Green

Bird's Eye View

INNOVATION PARK OVERVIEW

The University Innovation Park is the third site to be planned and developed within the Med Tech Corridor concept originally envisioned in the early 1990's by the Hammer Siler George Report.

The University Innovation Park is a mixed-use park being developed by East Tennessee State University in partnership with the City of Johnson City. The purpose of University Innovation Park is to diversify and expand the economic base of the Tri-Cities region by supporting ETSU and attracting higher paying jobs. The strategy is to leverage the scholarship at East Tennessee State University with Middle Anchor's land to advance university and industry capabilities. The primary orientation of University Innovation Park is to support the growth and development of the Tri-City Region's existing industry assets. Recruitment of business from outside of the region is a secondary mission.

The Master Plan envisions the site to function as a single 60 acre campus. The key organizing concept for the master plan is the creation of a flexible plan that is focused around a central spine and urban green. To support these types of mixed uses there are four essential building types proposed in the master plan:

Multi-Tenant / Single Tenant Office:
Buildings of 1-4 floors with footprints of 15,000 – 40,000 sq. ft. for service businesses.

Small Office / Research:
One to two floor building with a single tenant with footprints of 8,000 – 20,000 sq. ft. for office, service and production.

Incubator:
One floor building having multiple tenants and shared admin space.

Flex Tech:
One story multi-tenant buildings with small footprint – 8,000 – 28,000 sq. ft. and significant truck service areas for production, laboratory and distribution functions.

Enlarged University Innovation Park Plan

University Innovation Park
Med Tech Corridor
Middle Anchor

Veteran's Administration
Mountain Home Campus

CAMPUS WIDE MASTER PLAN

FUTURE CAMPUS DEVELOPMENT

When tracing the history of the physical development of any university campus there are usually growth periods which can be traced to the expansion and formation of the character and order of its place. ETSU has had such periods of growth and expansion and is currently in the mist of one such growth period. Good planning and design are essential to capitalizing on the opportunities which are presented during these times to heal decisions of the past and to further enhance the sense of character and place for the future. The face of ETSU is changing quickly and dramatically.

ACADEMIC

- D.P. Culp University Center Renovation Complete 2008
- Fine Arts Center Design Contract expected in 3-4 years
- Math Science Academic Building in 8 years
- Ross Hall renovation for academic space 2011
- Powell renovation for academic space 2016

RESIDENTIAL HOUSING

- Governors Hall Construction Complete Summer 2007
- Luntsford Hall Renovation Complete Summer 2007
- Carter Renovation Complete Summer of 2008
- Centennial Hall Construction Complete Summer 2009
- Lucille Clement Renovation Complete Fall 2010
- Buc Ridge Apts. III Complete Fall 2010
- Nell Dossett Renovation Complete Summer 2011
- West Hall Renovation Complete Summer 2012
- Buc Ridge Apts. IV Complete Fall 2011
- Married Housing Renovation Complete Summer 2013

ATHLETIC

- Soccer Complex Construction Complete Winter 2007
- Softball Stadium Construction Complete Fall 2008
- Baseball Complex Complete Spring 2011

DIVISION OF HEALTH SCIENCES

- Forensics Construction Complete Winter 2006
- College of Pharmacy Construction Complete Fall 2008

GRAY FOSSIL SITE

- Gray Fossil Site Visitors Center Construction Complete Summer 2007
- Gray Fossil Site Phase II Complete Fall 2011

MASTER PLAN OBJECTIVES

The ETSU Master Plan conceives of the Main Campus, Mountain Home Campus and University Innovation Park as an integrated academic/research complex, reflecting the University's increasingly pivotal role in bringing cultural and educational resources to the City of Johnson City, Tennessee as well as the eastern Tennessee region. The overall objective is to link the campuses by consolidating academic programs, by improving vehicular and pedestrian connections, by upgrading the State of Franklin "seam" with landscape improvements, and by fostering high quality, compatible land uses in the outbuildings between the two campuses.

Given the program for new building areas and the assessment of existing conditions, a series of design and development objectives were established for the Master Plan. The objectives describe the intention of the Master Plan, and are as follows:

- Establish a flexible framework for growth that allows for incremental expansion or consolidation of University uses within defined areas.

- Maintain an efficient use of land resources within the campus core.

- Support the further development of the Med-Tech Corridor.
- Respect the historical character of the Mountain Home Campus during the relocation and expansion of the Health Sciences programs.

- Reinforce the University's setting in the Appalachian Mountain by providing vistas to the mountains and restoring forest and stream presence into the campus environment.

- Reinforce and extend the existing open space structure as exemplified by Dossett mall, Memorial/Wilson quadrangle and Brown courtyard.

- Respect the simple formality of material, limited ornamentation, and uniform building height on campus.

- Respect and reinforce principal campus open spaces through selected building infill and landscape planting.

- Restore "the Great Lawn" and Amphitheatre garden into the central campus.

- Extend the pedestrian mall concept for the entire length of South Dossett Drive.

- Mitigate the negative visual character of large parking lots at the principal east and west campus entrances.

- Establish a clear sense of entry and arrival to the campus.

- Locate community service and cultural facilities such that they are readily accessible to the community and the campus.

- Provide for easily defined campus bounds that identify the institution within the greater community.

- Develop a long-term strategy for building renovation, demolition and property acquisition.

EAST TENNESSEE STATE UNIVERSITY

...becoming the best regional university in the country.

CAMPUS WIDE MASTER PLAN - MARCH 2010

Prepared by:

FISHER+ASSOCIATES
Architecture/Planning

MAIN CAMPUS INDEX

EXISTING BUILDINGS

2	Alexander Hall
3	D.M. Brown
5	Mathes Hall
6	Ernest C. Ball Hall
7	Memorial Center
8	Warf-Pickel Hall
9	Memorial Hall
10	Gilbreath Hall
11	Campus Center Building
12	Sam Wilson Hall
14	Burleson Hall
15	Lyle Hall
16	Earnest House
17	Wilson-Wallis Hall
18	Hutcheson Hall
19	John P. Lamb, Jr. Hall
20	Roy S. Nicks Hall
21	Rogers-Stout Hall
40	Power Plant
41	Clack Building
42	Bond Building
43	Lyle Barn
45	Storage Building
60	Burgin E. Dossett Hall
62	Art Annex
91	Reece Museum
92	D.P. Culp University Center
94	Softball Stadium
95	Soccer Facility
100	Married Student Housing
101	Married Student Housing
102	Married Student Housing
103	Married Student Housing
104	Married Student Housing
105	Married Student Housing
106	Married Student Housing
107	Wash House
110	Davis Apartment
111	Davis Apartment
112	Davis Apartment
127	Carter Hall
128	Stone Hall
129	Ross Hall
130	Powell Hall
131	Ross Hall
132	West Hall
133	Nell Jennings Dossett Hall
134	Lucille Clement Hall
140	Luntsford Apartments
150	Center for Community Outreach and Family Services
151	Office of Rural and Community Health
158	1110 Seminole Dr.
159	1118 Seminole Dr.
170	Physical Plant Storage Building
303	Info. Technology/ Telecommunications
305	Central Receiving and Physical Plant Warehouse
306	WETS-FM Radio Station
310	Harry D. Powell Observatory
320	Charles C. Sherrod Library
321	Buccaneer Ridge Apartment
322	Buccaneer Ridge Apartment
323	Buccaneer Ridge Apartment
324	Buccaneer Ridge Apartment
325	Buccaneer Ridge Apartment
326	Buccaneer Ridge Apartment
327	Buccaneer Ridge Apartment
330	Basler Center for Physical Activity
332	Child Study Center
340	Auxiliary Food Service
349	Golf Maintenance Building
350	Warren-Greene Golf Center
351	Buccaneer Ridge Apartment
352	Buccaneer Ridge Apartment
353	Governors Hall
355	Surplus Warehouse
358	Centennial Hall
904	Scott M. Niswonger Digital Media Center

NEW BUILDINGS

N1	Welcome Center
N2	Math & Science Bldg.
N3	Fine Arts Center
N4	Public Safety / Parking Garage
N5	Basketball Arena
N6	Parking Garage
N7	Track & Field Facility
N8	Baseball Stadium
N9	Tennis Complex
N10	Parking Garage
N11	Intramural Fields
N12	Buccaneer Ridge Apartment III
N13	Parking Garage
N14	Future Apartment Development
N15	Buccaneer Ridge Apartment IV
IN2	Center for Experiential Learning
IN3	University High School

MOUNTAIN HOME VA CAMPUS

V = VA Controlled Buildings
VN = VA Campus Proposed New ETSU Bldg.
IN = Innovation Park Proposed New Bldg.

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6	ETSU Forensics
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V41	Eng. Admin. Offices
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V161	Emer. Gen. Bldg. 160
V162	NHCU
178	ETSU Research Bldg.
V200	Hospital
V201	Eng. Maint
V204	Out-Patien
V205	Laundry / V
V206	Grounds K
V207	MRI
V208	Eng. Co-Ge
V209	ESG Thern
341	Innovation
VN1	Johnson Ci
IN1	Cardiology
IN2	Ctr. For Ex
IN3	University

UNIVERSITY INNOVATION PARK

VN1	Proposed Johnson City Family Practice Ctr.
IN1	Proposed Innovation Lab
IN2	Proposed Clinical Education Bldg. II
IN3	Proposed Center for Expermential Learning
EX1	Palma Robinson CEBI / ESTU Physcians & Associates

Master Plan Appendix A

- ETSU Academic Facilities Master Plan

Academic Space Master Plan

JANUARY 2010 - RESULTS AND SUMMARY FINDINGS

Comprehensive Facilities Planning, Inc. ◆ Columbus, OH ◆ www.cfp-planners.com

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Academic Space Master Plan

Comprehensive Facilities Planning, Inc (CFP) was retained by East Tennessee State University to conduct a space needs assessment of its academic and administrative facilities for the Academic Space Master Plan project. This project involved the collection and analysis of data on a departmental level for most units housed on the Johnson City Campus. Residence halls, non-university operations and satellite operations were excluded from this study.

This study is a critical step in identifying departmental space deficiencies or surpluses, establish capital planning priorities and address the requirements established by the Tennessee Board of Regents.

Tasks

The following tasks were undertaken in the development of the Academic Space Master Plan:

- Space guidelines were developed based on the culture of the institution and the THEC space planning guidelines.
- Assessments were made on the physical condition and functional capabilities of existing instructional facilities. This entails the collection of survey data to review the existing classrooms and instructional lab conditions in comparison to model criteria.
- Space needs calculations were prepared based on current demands and compared with available facilities.
- Future space needs were modeled based on projected enrollments using past enrollment trends and college assessments for the next ten years.
- Peer data comparisons of space by room type and student FTE were made.
- Tools necessary to develop a comprehensive planning approach to assist the University in setting capital project priorities were provided.
- Base data to inform long term decision making concerning the reprogramming and/or construction of new space, and the renovation and appropriate utilization of existing space were provided.
- Recommendations for optimal space use and allocation were developed.

Space Needs Calculation Methodology

The following steps were involved in the space needs analysis:

- Review and confirm existing space utilization.
- Develop appropriate space guidelines for each academic department and administrative units incorporating the THEC space planning criteria.
- Evaluate existing facilities to determine space deficiencies and surpluses.

- Provide the process tools and methodology for the ongoing prioritization of major capital and renovation investment projects.

The methodology used included measuring the quantitative space needs that may impact the delivery of services. This formula-based, quantitative process calculates space needs based on a series of interactive work steps. Data and programmatic information from various user groups were gathered, analyzed, and documented. The data and assumptions developed from these initial steps were verified and adjusted to customize the space needs model for each department, including space criteria (modules) for the type of space being analyzed.

The space need requirements, including the square footage amounts of each room type were determined by the discipline, equipment used in the area, utilization rates (i.e., station area, station occupancy ratios, and room utilization rates), number of persons occupying the space, etc. The results derived from the space needs calculations were then compared to the current assigned space to determine surpluses or deficiencies of space.

General planning assumptions applied in the analysis are presented in the following section. Summaries of the calculated space needs are presented in subsequent sections of this report. Detailed space needs reports for each department have been produced as a separate document and are available for review through the Department of Facilities Management, Planning and Construction.

General Planning Assumptions

The following planning assumptions provide guiding principles, which were critical in the formulation of the results of this study.

1. Basic data used in this study was provided by the Provost and Facilities Management offices (space inventory); Human Resources (personnel); and Registrar (class schedule and modified credit hour data - excluding "off-campus" activity). Fall 2008 was used as the baseline for this study. This data was reviewed and verified by each of the departments in the University. The comparative space data was augmented with several upcoming planned capital projects including the Ross Hall renovation, Medical Student Center Addition and the Gray Fossil site addition.
2. This study was limited to space assigned to the administrative and academic units located on the Johnson City campus. Building support facilities (e.g., mechanical rooms, corridors, etc.) residence halls and non-university operations including the Tennessee Department of Education, US Post Office, Innovation Lab and Veterans Administration were not part of the scope of this study.
3. Clinical treatment facilities in this assessment were defined to include only facilities that have a primary instructional mission/purpose as contrasted to those clinics that are patient-based. Therefore, the clinical programs meeting these criteria that were included in this assessment include the Dental Hygiene Clinic, Speech and Audiology Clinic, Falls Prevention Clinic and the Family Medicine clinics located in Johnson City, Bristol and Kingsport. Any other clinical treatment space located on the Johnson City or any other University sites were exempted from the scope.
4. The primary focus of this analysis was on the quantity of space by type and use. A quality assessment for classrooms and teaching labs was also conducted as these facilities were surveyed by the University to identify those that are physically or functionally deficient. The results of this survey will be used to provide basic data for the University to target improvement funding.
5. The space needs calculations were based on nationally recognized space planning guidelines, the Tennessee Higher Education Commission (THEC) Space Allocation Guidelines (July 2009), and the applied experience of the CFP consultants. The recently published THEC guidelines and criteria were used as they may apply to departmental space needs for an existing campus. Because the THEC guidelines are generic for assessing a total campus, a blending of these criteria with factors the consultants believe are more appropriate were used in the modeling process. These guidelines were modified further to fit the culture and operations of ETSU and each academic department.
6. The planning period for this study is ten years to the year 2020.
7. Office space needs were developed by indentifying all personnel requiring office space, private or shared, and applying a uniform set of office module guidelines prescribed by THEC to the appropriate position type. The office space planning modules included in this modeling process are shown in the following table.

Position Type	Sq. Ft. Module
President	**350**
Vice President	**240**
Dean	**180**
Assoc./Asst Administrator	**150**
Director/Chair	**150**
Asst Director	**130**
Faculty	**150**
Instructors, Lecturers & Visiting Faculty	**100**
Clinical Faculty	**150**
Studio Faculty	**225-250**
Adjunct Faculty	**100**
Professional Staff	**130**
Clerical Staff	**120**
Technical Staff	**100**
Graduate Assistants	**60**
Graduate Research Assistants	**40**
Post Docs	**100**
Personnel without Office	**0**
Student Worker	**60**

The office space needs were further developed for this assessment to incorporate the following assumptions/factors:

- Office space was not provided for inactive emeriti faculty.
- With the exception of the Family Medicine clinics included in this study, resident physicians were assumed to be provided space off campus (hospital or clinical facilities) and were not included in the space needs calculations.
- Temporary workers whose position types were not specified were included in the office calculation by allocating the clerical office module for each.
- Associate or Assistant Deans that also have a faculty appointment within an academic department were provided with an administrative office in addition to their faculty office.
- The space inventory for rooms that were identified as open landscape or having modular offices, or an office that provides access to a suite of offices, was modified to recognize these rooms as providing interior circulation space in addition to being used for office functions. A proration factor of 30% was applied in most cases to estimate this circulation space component in order to provide a more accurate comparison for the office needs.

8. Research laboratory space needs were based on the number of personnel engaged in research that require specialized lab facilities. Information regarding current research activity was provided by each department to identify personnel engaged in research and by type of research (i.e. lab-based vs. office-based vs. clinic-based). This data was used to apply a discipline-specific research space allocation or module to develop the research space calculation. The research space modules prescribed by THEC were used, which vary by discipline and position-type. Only those personnel identified as conducting their research in a laboratory facility were included in a separate research lab calculation. Personnel identified as conducting their research only in offices were not provided any additional space above the typical office space needs calculation.

9. Additional assumptions and factors used in developing the research space requirement include the following:
    - Unless otherwise specified by the respective college, the projected research space needs assume the same proportionate ratio of personnel conducting lab-based research as currently identified by the departments.
    - For departments that primarily conduct office-based research but have a need for collaborative or group space to conduct research activities, one or more project rooms were provided.

10. Certain laboratory space is classified as “special use” labs that may not be assigned to a specific faculty or researcher. These are typically shared spaces that are functionally unique usually because of specialized equipment. Unless otherwise noted, these existing spaces were assumed to be sufficient and displayed as they currently exist.

11. In accordance with the THEC guidelines, a factor of 30% of the calculated office need was applied to determine office service space needs for all departments. This factor assumes to address needs for office service space (files, work areas, etc.), conferencing space and office lounge space. Supplemental office support space above the normal office service allocation was provided for departments requiring waiting rooms, processing areas, and specific storage/file needs. Offices requiring waiting areas typically are departments that include operations dealing with the public and students such as senior administrative and student service offices. In addition, departments that have unique (i.e., long-term) storage space needs that may exceed the typical office service allocation may have been provided with a supplemental allocation to address this need.

12. For space planning purposes full time equivalent student counts were calculated using a conversion factor of 15 credit hours per undergraduate student and 12 credit hours per graduate student.

13. Classroom space needs were analyzed by applying a uniform set of utilization goals across the University. Classrooms that were determined to be assigned to a specific department because of scheduling requirements or location have been classified separately. The following THEC utilization goals were used in developing the classroom space needs: 30 Weekly Room Hours for scheduled use for an instructional week of 8 AM to 5 PM - Monday through Friday; and 60% station occupancy in scheduled rooms. A larger average station size of 20 assignable square feet was used as contrasted with the THEC guideline of 17.7 assignable square feet per student station. It was assumed the larger station size provides more flexibility in the learning environment and is more suitable to modern instructional practices. These factors are modeling averages that may vary as related to existing usage patterns and conditions.

14. Instructional laboratory needs were included for individual academic programs within each department as required. Lab calculations/formulas were modified to reflect the current instructional requirements by program area. Programs that did not generate sufficient student credit hours to calculate a functional lab facility were provided with a minimum lab need as it was assumed delivery of the instructional program requires the provision of a functional lab space. THEC station sizes were applied where applicable.

15. Unless specified by the respective division or college, faculty and staffing personnel projections included in the study were based upon the projected enrollments. Projected personnel counts were reviewed by the Provost's Office, Vice President for Health Affairs, Deans and other senior administrators. Projected staffing for all academic departments generating student credit hours were assumed to increase proportionately to the projected enrollments for the respective department, unless otherwise specified by the college. Staffing for certain non-academic departments that are student service oriented and are sensitive to overall campus enrollment growth were projected using a campus-wide enrollment growth factor. Staffing needs for other departments were reviewed on a case-by-case basis. These projections are assumed to be realistic expectations and achievable future staffing levels.

16. Current space allocations for certain types of space needs were assumed to be sufficient and were reviewed on a case by case basis. Typically these types of spaces include: departmental libraries; student lounges assigned to administrative units; training rooms; testing rooms and interview rooms.

17. Enrollment Assumptions: The Fall 2008 semester term served as the base year for student enrollments. Future enrollment projection factors were initially developed after a reviewing enrollment trend data provided by the University for the past ten years (1999 - 2008). These factors were reviewed and modified as necessary by the respective colleges. The projected space needs therefore have been developed using the following ten-year growth factors as shown below applied to the current student credit hour distribution by department, unless otherwise noted. Note: current student credit hour data does not include web-based courses but does include hybrid courses. The

following table summarizes the projected enrollment data by department and college. See the Appendix for more detailed enrollment data.

Projected Student Data Summary:

	Student Enrollment Projection Factors		Projected Enrollment Variances	
College/Department	Undergrad	Graduate	Student Credit Hours	FTE
Arts and Sciences				
Appalachian Studies	100.0%	100.0%	654	44
Art and Design	11.0%	5.0%	397	27
Biological Sciences	23.0%	105.0%	1,644	117
Chemistry	32.0%	50.0%	1,395	95
Communication	62.0%	50.0%	4,209	281
Crim Justice & Criminology	0.0%	37.0%	58	5
English	17.0%	9.0%	1,599	107
Foreign Languages	8.0%	67.0%	209	14
Geosciences	18.0%	35.0%	478	32
History	17.0%	10.0%	1,440	97
Mathematics	7.0%	28.0%	705	48
Music	2.0%	0.0%	2,746	183
Philosophy & Humanities	0.0%	44.0%	1	0
Physics and Astronomy	73.0%	495.0%	2,129	142
Political Science	12.0%	129.0%	240	16
Psychology	40.0%	10.0%	1,899	127
Social Work	3.0%	3.0%	62	4
Sociology & Anthropology	31.0%	35.0%	1,715	115
:				
Arts and Sciences Summary	**UG SCH**	**Grad SCH**	**Total SCH**	**Total FTE**
Arts & Sciences Totals	**96,049**	**4,422**	**100,471**	**6,772**
Total Differences	**20,582**	**999**	**21,581**	**1,455**
Percentage Differences	**27.3%**	**29.2%**	**27.4%**	**27.4%**
Business and Technology				
Accountancy	12.0%	10.0%	327	22
Computer & Info Science	22.0%	29.0%	1,674	114
Economics & Finance	25.0%	0.0%	1,084	72
Eng. Tech, Surv & Dig Media	0.0%	0.0%	0	0
Management & Marketing	9.0%	0.0%	564	38
Military Science	0.0%	0.0%	0	0
Business & Technology Summary:	**UG SCH**	**Grad SCH**	**Total SCH**	**Total FTE**
Business & Technology Totals	**28,950**	**2,127**	**31,077**	**2,107**
Total Differences	**3,494**	**154**	**3,648**	**246**
Percentage Differences	**13.7%**	**7.8%**	**13.3%**	**13.2%**
Clinical & Rehab Health Science				
Allied Health	0.0%	572.0%	778	65
Communicative Disorders	50.0%	24.0%	368	28
Dental Hygiene	0.0%	0.0%	0	0
Physical Therapy	0.0%	33.0%	434	36
Clinical & Rehab Summary:	**UG SCH**	**Grad SCH**	**Total SCH**	**Total FTE**
Clinical & Rehab Totals	**2,915**	**3,823**	**6,737**	**513**
Total Differences	**139**	**1,441**	**1,579**	**129**
Percentage Differences	**5.0%**	**60.5%**	**30.6%**	**33.7%**
Education				
Curriculum & Instruction	20.0%	20.0%	758	53
Educ. Lead. & Policy Analysis	0.0%	20.0%	140	12
Human Develop & Learning	50.0%	30.0%	2,359	164

	Student Enrollment Projection Factors		Projected Enrollment Variances	
Kines, Leisure & Sport Sci.	80.0%	50.0%	3,130	213
Education Summary:	**UG SCH**	**Grad SCH**	**Total SCH**	**Total FTE**
Education Totals	**15,935**	**4,335**	**20,270**	**1,424**
Total Differences	**5,414**	**973**	**6,387**	**442**
Percentage Differences	**51.5%**	**28.9%**	**46.0%**	**45.0%**
Nursing	5.0%	30.0%		
Nursing Summary:	**UG SCH**	**Grad SCH**	**Total SCH**	**Total FTE**
Percentage Differences	**7,392**	**1,182**	**8,574**	**591**
Public Health(2)				
Environmental Health	14.0%	55.0%	76	6
Health Sciences	14.0%	0.0%	524	35
Former Public Health Depts.	0.0%	105.0%	1,055	88
Public Health Summary:	**UG SCH**	**Grad SCH**	**Total SCH**	**Total FTE**
Public Health Totals	**6,745**	**2,184**	**8,929**	**632**
Total Differences	**569**	**1,087**	**1,656**	**129**
Percentage Differences	**9.2%**	**99.1%**	**22.8%**	**25.5%**
Medicine				Total FTE
Total Differences				48
Percentage Differences				20.0%
Pharmacy **No Projected Change**				
Continuing Studies				
Cross Disciplinary Studies	18.0%	35.0%	1,975	163
College Summary:	**UG SCH**	**Grad SCH**	**Total SCH**	**Total FTE**
Total Differences	**301**	**42**	**344**	**24**
Percentage Differences	**18.0%**	**35.0%**	**19.1%**	**19.4%**
	UG SCH	**Grad SCH**	**Total SCH**	**Total FTE**
University Totals	**159,961**	**18,236**	**178,197**	**12,712**
Total Differences	**30,851**	**4,969**	**35,820**	**2,519**
Percentage Differences	**23.9%**	**37.5%**	**25.2%**	**24.7%**

Basic Data

The space needs modeling methodology used in this assessment is a data-driven process that utilizes four basic data files that are maintained by the University. These four databases are the space inventory, personnel, schedule of classes (class file) and student credit hours. These files were compiled into an aggregate relational database and appropriately mapped or linked to generate the formula-based space needs model. A brief overview of the process used in collecting, verifying and modifying these files follows:

Space Inventory: the space inventory was updated from existing spreadsheet data maintained by the Provost's Office and from small-scale floor plans maintained by Facilities Management. This data was supplemented and modified after review by the user departments and verified through walk-through inspection of the space. This data was also cross-referenced and updated from the current building floor plans.

Personnel Data: a basic personnel database was provided through the University's Human Resources department. This data was supplemented with other positions not typically reported to Human Resources including authorized, open positions; non-university personnel; student employees; and graduate assistants. The data was reviewed and verified for accuracy. The verified data was then mapped to relate to the appropriate space department. Projected personnel were developed from enrollment based projections as well as input received from senior administration. A summary of the current and projected personnel data by position type used in this model is presented in the table below.

Table 1: Personnel Summary

Position Description	Current Personnel	Projected Personnel	Diff
President	1	1	0
Vice President	4	4	0
Athletic Director	1	1	0
Dean	12	12	0
Assoc./Asst Administrator	60	62	2
Vice Provost	6	6	0
Director/Chair	161	166	5
Assoc/Asst Director	62	63	1
Faculty	680	807	127
Co-Inv	0	9	9
Instructors, Lecturers, Visiting Faculty	131	154	23
Adjunct Faculty	281	369	88
Co-Funded Faculty	0	40	40
Studio Faculty	12	24	12
Clinical Faculty	6	8	2
Professional Staff	431	465	34
Research Staff	39	56	17
Trainees	4	4	0
Clerical Staff	546	602	55
Technician	137	140	3
Graduate Assistants	372	468	96
Graduate Research Assistants	239	331	92
Post Docs	15	27	12
Peer Tutors	8	10	2
Personnel without Office	685	685	0
Totals	3,892	4,512	620

Schedule of Classes: the Fall 2008 schedule of classes (class file) was obtained from the Registrar's office. This data presents all courses taught for the fall semester by course, location and meeting times, and was used to create a current baseline of instructional patterns and utilization.

Student Credit Hours: this data file was provided through the Registrar's Office. This data identified the number of student credit hours generated for the Fall 2008 semester by course and level and was used to generate the calculation of classrooms and other instructional spaces.

Peer Data: The project scope includes a peer institution data comparison as a measure of the ETSU campus square footage against comparable institutions. The effort was conducted with the intention the data would provide a measure of the current utilization as compared to an industry average for space allocation. However, it is important to note that while the concept of comparing space is a good one, the results may not always be accurate due to hidden variables and the implication this has for the numbers. In addition, the data compilations are open to interpretation.

The institutions considered to be peers for this analysis were identified by the Core Committee. The peer institutions were sorted into three groupings: University-wide peers; College of Medicine peers; and College of Pharmacy peers. The institutions identified as peers by grouping are listed in the Appendix.

Of the 17 institutions identified, 7 responded with partial or complete information. In anticipation of a low response, CFP also contacted The Ohio State University to request similar information to be used in the College of Medicine peer data comparison. A majority of the non-respondents were for Medicine and Pharmacy.

Due to the low response and concerns with the accuracy of the data received, previous space data collected by CFP from institutions of similar size and type were included in the comparison tables for the University peer analysis. However, each institution is unique so a true "apples to apples" comparison would require elimination of programs or space types that do not apply to all. There were insufficient responses to develop a peer comparison for the College of Medicine. The data received for Pharmacy was questionable in part due to the way each institution operates.

For the purposes of the space comparison, the assignable square footage (ASF) data was sorted into the major room use category structure as outlined in the Facilities Inventory and Classification Manual published by the National Center for Education Statistics. Residential and health care use categories were excluded from the comparison for the University-wide assessment.

In addition, the assignable square footage (ASF) amounts by major room use category were divided into the current full time student enrollment (FTE) for each institution to determine the ASF/FTE. The resulting numbers were averaged and compared to the East Tennessee University ASF/FTE ratios. This type of analysis is intended not as a simple comparison but as a way to identify an acceptable range for each room use category.

The results of the benchmarking are not meant to stand alone. The averages were reviewed and compared to the formulas and modules used in the space needs analysis. However, it is important to note that the results cannot predict future needs or quantify future trends and performance improvements in the evolution of technology or changes in the delivery of instruction and research.

Space Needs Summary Overview

The following table present overall space needs summaries for the University by division and college and by major space type category. A similar set of summary tables are presented in the next section for the academic colleges and administrative divisions.

Space Needs Summary - Total University

Table 2 summarizes the current and projected calculated space needs as compared with the existing inventory of space by major division and college grouping:

Table 2: Space Needs by Division

Division	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Health Affairs	3,902	2,543	1,359	2,543	1,359
College of Clinical & Rehab Health Sciences	40,676	43,847	-3,171	56,612	-15,936
College of Nursing	34,669	36,587	-1,918	40,914	-6,245
College of Pharmacy	21,950	23,403	-1,453	43,427	-21,477
College of Public Health	34,857	40,636	-5,779	53,347	-18,490
James H. Quillen College of Medicine	258,748	288,885	-30,137	310,314	-51,566
Provost/Academic Affairs	153,070	115,016	38,054	126,753	26,317
College of Arts and Sciences	259,557	344,727	-85,170	416,302	-156,745
College of Business and Technology	81,411	90,763	-9,352	98,001	-16,590
College of Education	72,116	85,837	-13,721	103,634	-31,518
Enrollment Services	19,140	21,585	-2,445	23,662	-4,522
Research and Sponsored Programs	6,496	3,970	2,526	3,970	2,526
School of Continuing Studies	10,021	12,957	-2,936	14,304	-4,283
Student Affairs	131,994	118,243	13,751	129,675	2,319
Finance and Administration	52,063	51,520	543	53,330	-1,267
President	149,621	149,512	109	162,498	-12,877
University Advancement	7,006	5,719	1,287	9,678	-2,672
Campus Wide Space	319,200	302,943	16,257	364,459	-45,259
Totals	**1,656,497**	**1,738,694**	**-82,197**	**2,013,423**	**-356,926**
Special Needs Assessments:					
University School	31,639	68,773	-37,134	81,270	-49,631
Falls Prevention Center	531	261	270	1,750	-1,219

Summary Findings:

- The total existing space included in this assessment is 1.65 million assignable square feet.
- The current calculated net need indicates a deficiency of approximately 82,200 assignable square feet or about 5% more than the current space. The College of Arts and Sciences has the greatest aggregate need (deficit) of any one college or division.

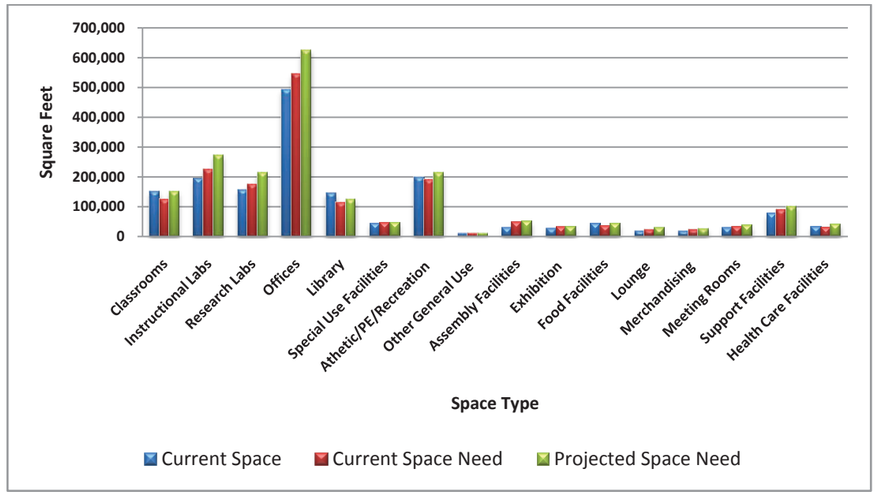
- The projected calculated net need indicates a deficiency of approximately 356,900 square feet or about 21.6% more than the current space. The College of Arts and Sciences has the greatest aggregate need (deficit).
- All of the academic colleges have a net aggregate space need (deficit) of some extent for both current and future projections.
- Special space needs calculations for the University School and Fall Prevention Clinic were developed that are not incorporated into the University totals. The projected needs for the University School include the consolidation of all programs within a single facility as well as growth in the student enrollment.
- The current square feet figure in Table 2 above for Campus Wide Space includes 21,432 square feet of space that is unassigned and available for reassignment/repurposing to address other unmet needs of the campus.

Space Needs by Space Type - Total University

Table 3 summarizes the current and projected calculated space needs as compared with the existing inventory of space by major room type grouping:

Table 3: Space Needs by Room Type

	Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
100	**Classrooms**	148,922	123,326	25,596	149,133	-211
210	**Instructional Labs**	192,409	226,854	-34,445	272,496	-80,087
250	**Research Labs**	155,742	175,039	-19,297	214,142	-58,400
300	**Offices**	493,089	545,048	-51,959	624,536	-131,447
400	**Library**	145,526	112,957	32,569	124,712	20,814
500	**Special Use Facilities**	43,802	45,492	-1,690	46,402	-2,600
520	**Athletic/PE/Recreation**	198,954	190,868	8,086	213,888	-14,934
600	**Other General Use**	9,185	9,193	-8	9,193	-8
610	**Assembly Facilities**	28,818	46,895	-18,077	49,267	-20,449
620	**Exhibition**	26,037	31,437	-5,400	32,223	-6,186
630	**Food Facilities**	42,668	35,685	6,983	43,393	-725
650	**Lounge**	18,642	22,002	-3,360	27,203	-8,561
660	**Merchandising**	17,367	21,217	-3,850	25,938	-8,571
680	**Meeting Rooms**	27,743	32,623	-4,880	36,957	-9,214
700	**Support Facilities**	75,090	89,308	-14,218	102,443	-27,353
800	**Health Care Facilities**	32,503	30,751	1,752	41,498	-8,995
	Totals	**1,656,497**	**1,738,694**	**-82,197**	**2,013,423**	**-356,926**



Summary Findings:

- The room type category with the greatest current space need (deficit) is offices followed by instructional and research labs.
- The room type category with the greatest projected space need (deficit) is offices followed by instructional labs and research labs.
- In both current and projected instructional and research lab needs, the College of Arts and Sciences has the greatest need (deficit) followed by the Colleges of Medicine and Pharmacy. The College of Pharmacy's future research lab need accounts for the most significant portion of the overall increase of the projected research lab deficit.
- Because office space is the largest category of need identified a further cut of the data presents additional details that may be useful in determining priorities. Table 4 breaks down the office need (without office support) to identify the types of office space generating the greatest needs:
-

Table 4: Office Space Needs by Type

Office Type	Current Space	Current Need	Diff from Current Space	Percent Diff	Projected Need	Diff from Current Space	Percent Diff
Senior Administrators	39,612	45,592	-5,980	-15.1%	46,772	-7,160	-18.1%
Faculty	119,932	140,396	-20,464	-17.1%	175,223	-55,291	-46.1%
Professional & Clerical Staff	165,101	139,523	25,578	15.5%	153,075	12,026	7.3%
Graduate Students	17,257	33,780	-16,523	-95.7%	44,516	-27,259	-158.0%
Student Worker	3,232	21,464	-18,232	-564.1%	21,704	-18,472	-571.5%
Student Organizations	5,392	7,011	-1,619	-30.0%	7,011	-1,619	-30.0%
Totals	**350,526**	**387,765**	**-37,239**	**-10.6%**	**448,300**	**-97,774**	**-27.9%**

- In the current office needs calculation faculty offices indicate the greatest aggregate need (deficit) with student worker offices next. A lack of office space assigned to adjunct faculty likely accounts for a significant portion of the faculty office shortage. The student worker office need also has the greatest percentage increase as compared with the current space. Note: student workers have historically not been provided *desi nated* office work space by the University and have been housed within existing staff offices. This is the likely reason for such a significant calculated comparative deficit.
- In the projected office needs, faculty offices still have the greatest aggregate need (deficit) with graduate student offices having the next greatest need. Student worker offices have the greatest percentage change from current.
- By improving current utilization rates to the recommended THEC criteria, the existing classroom supply is adequate to meet the current instructional demand. A modest future deficit is indicated based on the projected enrollment growth including a recommended contingency factor. See the detailed analysis of the classrooms in the classroom needs section of this report.
- Library space has sufficient capacity to accommodate any foreseeable future growth.
- The assembly space need (deficit) for the entire campus ranges from a current net shortfall of 18,000 square feet to about 20,500 square feet in the future. The primary deficiency being addressed is for performance facilities in the Music and Theatre programs. Should the existing performance space for Theatre be replaced in the future, approximately 20,000 square feet for the two programs will need to be provided. If the current space is retained than only about 12,000 additional assignable square feet would be needed.
- The campus support space (i.e., storage, shops) is currently deficient by about 14,200 assignable square feet. With the anticipated growth this need would increase to over 27,300 assignable square feet.

College Space Summaries

This section presents the summary findings and results of the space needs assessment for the academic colleges. The aggregate departmental results are displayed in the first table of each section, followed by a summary of the needs by major room type category in the second table.

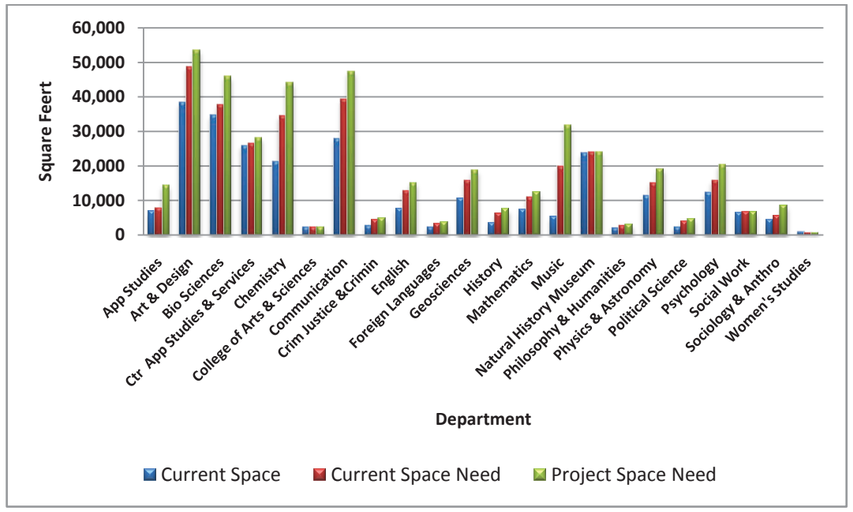
Provost/VP for Academic Affairs

College of Arts and Sciences

Table 5 summarizes the current and projected space needs as compared with the current space inventory for the departments within the College of Arts and Sciences:

Table 5: Space Needs by Department - College of Arts & Sciences

Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Appalachian Studies	6,816	7,945	-1,129	14,369	-7,553
Art and Design	38,364	48,640	-10,276	53,491	-15,127
Biological Sciences	34,611	37,836	-3,225	45,905	-11,294
Ctr Appalachian Studies & Services	25,931	26,506	-575	28,036	-2,105
Chemistry	21,180	34,435	-13,255	44,148	-22,968
College of Arts and Sciences	2,320	2,473	-153	2,473	-153
Communication	27,771	39,229	-11,458	47,305	-19,534
Criminal Justice and Criminology	2,742	4,317	-1,575	4,834	-2,092
English	7,774	12,767	-4,993	15,141	-7,367
Foreign Languages	2,400	3,289	-889	3,651	-1,251
Geosciences	10,499	15,742	-5,243	18,797	-8,298
History	3,520	6,188	-2,668	7,410	-3,890
Mathematics	7,135	11,004	-3,869	12,193	-5,058
Music	5,295	19,964	-14,669	31,713	-26,418
Natural History Museum	23,618	23,974	-356	23,974	-356
Philosophy and Humanities	2,074	2,827	-753	3,022	-948
Physics and Astronomy	11,493	15,202	-3,709	19,098	-7,605
Political Science	2,372	3,842	-1,470	4,605	-2,233
Psychology	12,193	15,807	-3,614	20,333	-8,140
Social Work	6,241	6,506	-265	6,572	-331
Sociology and Anthropology	4,348	5,573	-1,225	8,492	-4,144
Women's Studies	860	663	197	741	119
Totals	**259,557**	**344,727**	**-85,170**	**416,302**	**-156,745**



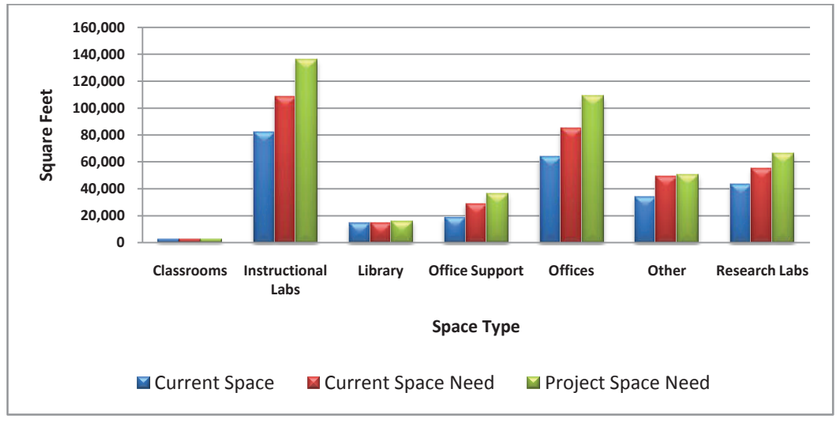
Summary Findings:

- The current calculated space needs for the College of Arts and Sciences indicates a deficit of approximately 85,200 assignable square feet, or about 33% more than their current space. Based on their projected enrollments, the deficit will grow to about 156,750 assignable square feet or 60.3% more than their current assigned space.
- Approximately two-thirds of the need (deficit) for this College is concentrated into two groups of departments: Performing and Fine Arts and the Sciences.
- The performing and fine arts departments (Art and Design, Music and Communications (Theater), have a projected net deficit of about 40% of the college's overall need. If the Appalachian Studies department is included in this grouping the deficit would increase to 44%.
- The science departments (Biology, Chemistry, Geosciences and Physics and Astronomy) have a future net deficit totaling about 32% of the college's overall need (deficit).
- Three college departments are directly impacted by the overall future enrollment increase of 25% growth for the University. These departments, English, History and Mathematics have a combined current net deficit of about 11,500 assignable square feet, which increases to 16,300 in the future.
- Most of the other humanities and social science departments, with the exception of Social Work, have relatively significant space deficits.

A college summary of the needs by room type is presented in Table 6 below:

Table 6: Space Needs by Space Type - College of Arts and Sciences

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Classrooms	2,587	2,587	0	2,587	0
Instructional Labs	82,237	108,467	-26,230	135,958	-53,721
Library	14,535	14,665	-130	16,195	-1,660
Office Support	18,802	29,139	-10,337	36,227	-17,425
Offices	64,014	85,287	-21,273	108,681	-44,667
Other	34,016	49,420	-15,404	50,330	-16,314
Research Labs	43,366	55,162	-11,796	66,324	-22,958
Totals	**259,557**	**344,727**	**-85,170**	**416,302**	**-156,745**



Summary Findings:

- Office space (including office support) is the area of greatest need (deficit) for the college. About 37% of the current deficit is in office space. This increases to about 40% in the future. Music, English and Appalachian Studies are the top three departments with the largest needs.
- Instructional laboratory space has the next greatest need (deficit) within this college, both current (31% of the total deficit) and projected (34.2% of the total deficit). The departments of Chemistry, Art and Design and Communications are the top areas with the largest needs.
- The performing/fine arts and sciences departments make up over 90% of the projected instructional lab deficit and over 42% of the office need.

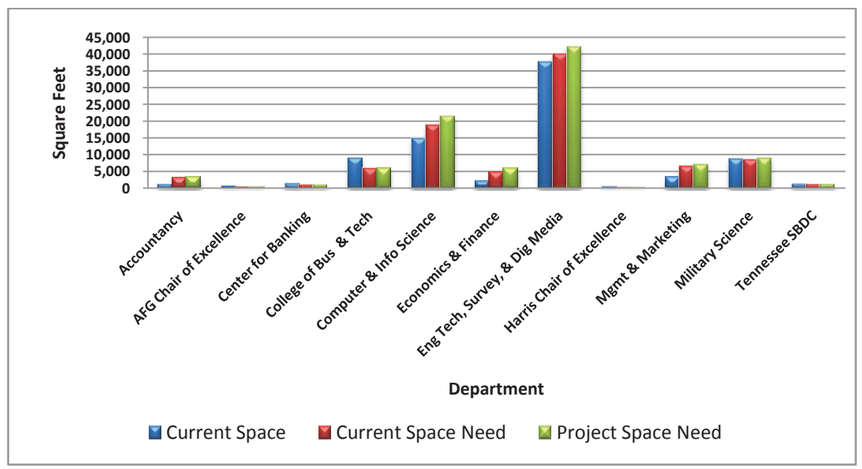
- The Library space includes the archives area in the Center for Appalachian Studies and Services, and will have a modest future shortfall.
- Over 70% of the future need in the "Other" category is based on the addition of large performance facilities for Music and Theatre.
- Almost two-thirds of the future research lab need is identified with the science departments.

College of Business and Technology

Table 7 summarizes the current and projected space needs as compared with the current space inventory for the departments within the College of Business and Technology:

Table 7: Space Needs by Department - Business & Technology

Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Accountancy	1,270	3,107	-1,837	3,350	-2,080
AFG Chair of Excellence	615	455	160	455	160
Center for Banking	1,465	1,037	428	1,037	428
College of Business & Technology	9,110	5,905	3,205	5,905	3,205
Computer and Information Science	14,994	18,735	-3,741	21,625	-6,631
Economics and Finance	2,105	4,901	-2,796	5,820	-3,715
Engin Tech, Surveying & Digital Media	37,860	40,092	-2,232	42,299	-4,439
Harris Chair of Excellence	445	247	198	247	198
Management & Marketing	3,354	6,513	-3,159	7,087	-3,733
Military Science	8,945	8,664	281	9,070	-125
Tennessee Small Business Dev Ctr	1,248	1,106	142	1,106	142
Totals	**81,411**	**90,763**	**-9,352**	**98,001**	**-16,590**



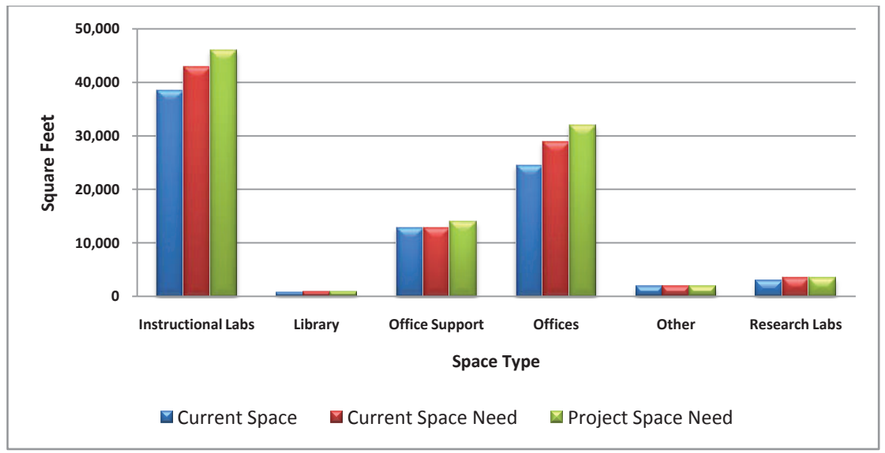
Summary Findings:

- The College of Business and Technology's current calculated need (deficit) is just over 9,350 assignable square feet or 11.5% more than their current space. The projected net need increases to almost 16,600 assignable square feet or 20.3% more than their current space.
- Computer and Information Science, Engineering Technology and Management and Marketing are the three departments with the greatest needs (deficits).
- The calculated surplus indicated for the Dean's Office is essentially offset by some of the departmental needs, as certain types of space such as conference rooms are centrally assigned to the Dean, however the need is reported within each department.

A college summary of the needs by room type is presented below in Table 8:

Table 8: Space Needs by Space Type- College of Business and Technology

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Instructional Labs	38,543	42,939	-4,396	45,956	-7,413
Library	736	811	-75	811	-75
Office Support	12,842	12,866	-24	13,940	-1,098
Offices	24,454	28,812	-4,358	31,959	-7,505
Other	1,872	1,872	0	1,872	0
Research Labs	2,964	3,464	-500	3,464	-500
Totals	**81,411**	**90,763**	**-9,352**	**98,001**	**-16,590**



Summary Findings:

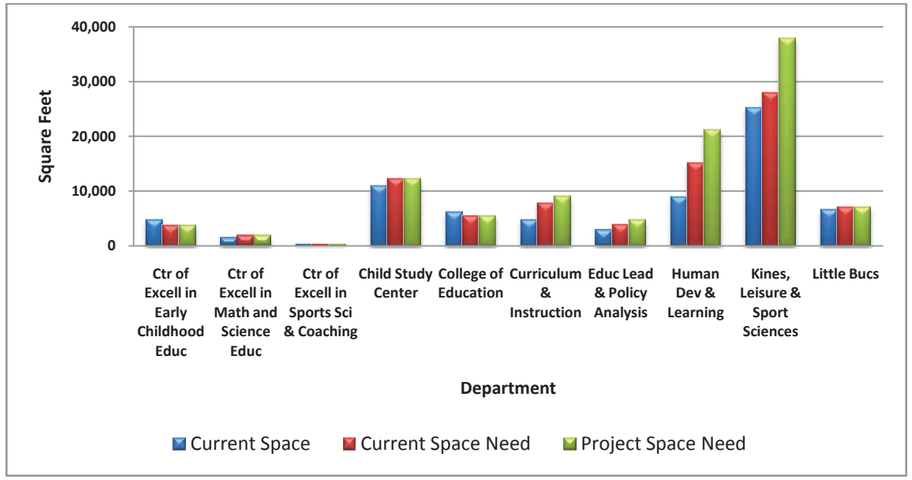
- Offices (including support) and instructional labs virtually make up the entire deficit in this College.
- The aggregate current office need (deficit) is about 4,300 assignable square feet with virtually all of this need being strictly offices. The projected aggregate need increases to 9,680 assignable square feet with over 87% of the additional need in only offices with the remainder being in support.
- Approximately two-thirds of the future office need is in faculty offices followed by graduate student offices. Management and Marketing and Economics and Finance have the greatest office needs.
- The instructional lab need is concentrated in the Computer and Information Science and Engineering Technology departments.

College of Education

Table 9 summarizes the current and projected space needs as compared with the current space inventory for the departments within the College of Education. A special assessment of the University School space needs was also conducted and the summary results are presented independent of the rest of the College.

Table 9: Space Needs by Department - College of Education

Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Ctr of Excellence in Early Childhood Education	4,725	3,767	958	3,767	958
Ctr of Excellence in Math and Science Education	1,510	1,820	-310	1,820	-310
Ctr of Excellence in Sports Science & Coaching	400	351	49	351	49
Child Study Center	10,989	12,191	-1,202	12,191	-1,202
College of Education	6,105	5,441	664	5,441	664
Curriculum and Instruction	4,770	7,833	-3,063	9,047	-4,277
Educational Leadership and Policy Analysis	2,820	3,954	-1,134	4,756	-1,936
Human Development and Learning	8,905	15,217	-6,312	21,242	-12,337
Kinesiology, Leisure & Sport Sciences	25,298	28,066	-2,768	37,821	-12,523
Little Bucs	6,594	7,198	-604	7,198	-604
Totals	**72,116**	**85,837**	**-13,721**	**103,634**	**-31,518**
University School	**31,639**	**68,773**	**-37,134**	**81,270**	**-49,631**



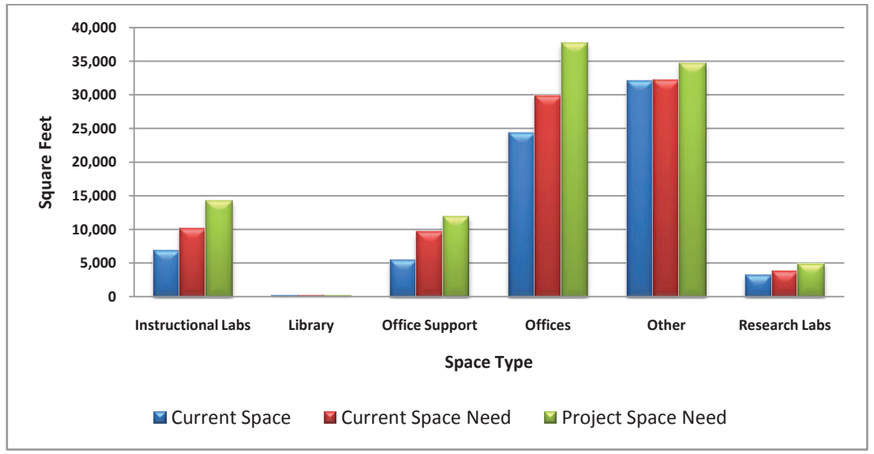
Summary Findings:

- The College of Education's current net calculated need (deficit) is just over 13,700 assignable square feet or 19% more than their current space. The projected need increases to a deficit of over 31,500 assignable square feet or 43.7% more than their current space.
- All of the academic departments show some level of current need (deficit). The centers and the college office however have sufficient space. The Department of Human Development and Learning has the greatest aggregate need (deficit).
- Kinesiology, Leisure and Sports Sciences and Human Development and Learning have the greatest future needs, followed by Curriculum and Instruction.
- A separate assessment of the University School was conducted, and the results are not included with the College totals. The results of this assessment indicates the current need (deficit) is over double the present size of the existing facility, with a future need (deficit) exceeding 49,600 assignable square feet that assumes increasing the current enrollment. A new facility or major addition would therefore be required to accommodate the space needs, which would also consolidate all of its current operations and moving them out of other University facilities. The detailed space needs calculation for the University School is included in the Appendix.

A college summary of the needs by room type is presented in Table 10 below:

Table 10: Space Needs by Space Type - College of Education

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Instructional Labs	6,790	10,163	-3,373	14,236	-7,446
Library	185	185	0	185	0
Office Support	5,407	9,573	-4,166	11,914	-6,507
Offices	24,398	29,912	-5,514	37,714	-13,316
Other	32,071	32,273	-202	34,634	-2,563
Research Labs	3,265	3,731	-466	4,950	-1,685
Totals	**72,116**	**85,837**	**-13,721**	**103,634**	**-31,518**



Summary Findings:

- Office space (including support) is the greatest area of need (deficit) in both the current and projected scenarios, followed by instructional labs. The future office space need (deficit) is almost 63% of the total deficit.
- Human Development and Leadership has the most substantial office need (deficit) of any department. Their current office deficit is about 6,300 assignable square feet (65% of the total office need), which increases to about 11,400 assignable square feet (57.5% of the total office need). Curriculum and Instruction has the next greatest need for additional office space.
- Most of the current office deficit is in student offices (graduate and student workers). However, a future deficit of over 7,900 assignable square feet in faculty offices is indicated followed by graduate student offices (a 5,100 assignable square feet deficit).

- A calculated need (deficit) for student worker office space of 1,230 assignable square feet was also identified. All or part of this need may be currently met by a surplus identified in the staff office category.
- Kinesiology, Leisure and Sports Sciences has the greatest need (deficit) in the instructional lab space type category. Their future lab needs are nearly 70% of the total needs for the College. Curriculum and Instruction has most of the remainder of the lab needs in the College.
- Kinesiology, Leisure and Sports Sciences has the only research lab need for the College.

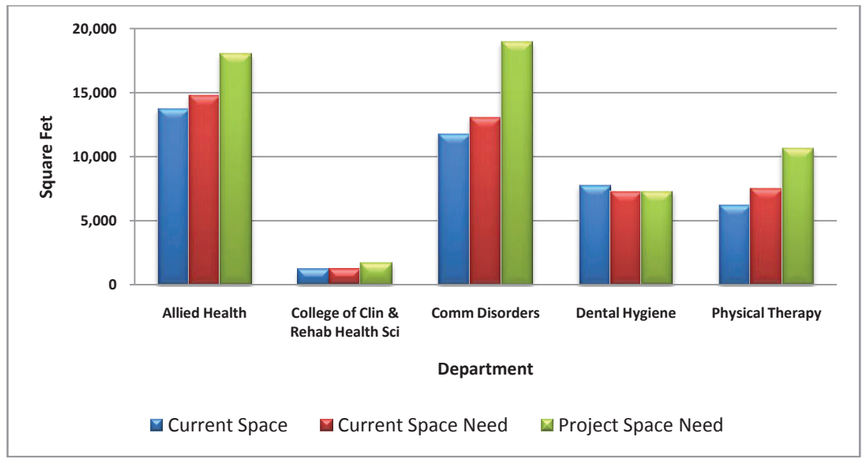
Health Affairs

Clinical and Rehabilitation Health Sciences

Table 11 summarizes the current and projected space needs as compared with the current space inventory for the departments within the College of Clinical and Rehabilitation Health Sciences.

Table 11: Space Needs by Department - College of Clinical & Rehab Health Sciences

Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Allied Health	13,724	14,778	-1,054	18,021	-4,297
College of Clin & Rehab Health Sciences	1,205	1,199	6	1,719	-514
Communicative Disorders	11,778	13,081	-1,303	18,948	-7,170
Dental Hygiene	7,729	7,280	449	7,280	449
Physical Therapy	6,240	7,510	-1,270	10,645	-4,405
Totals	**40,676**	**43,847**	**-3,171**	**56,612**	**-15,936**



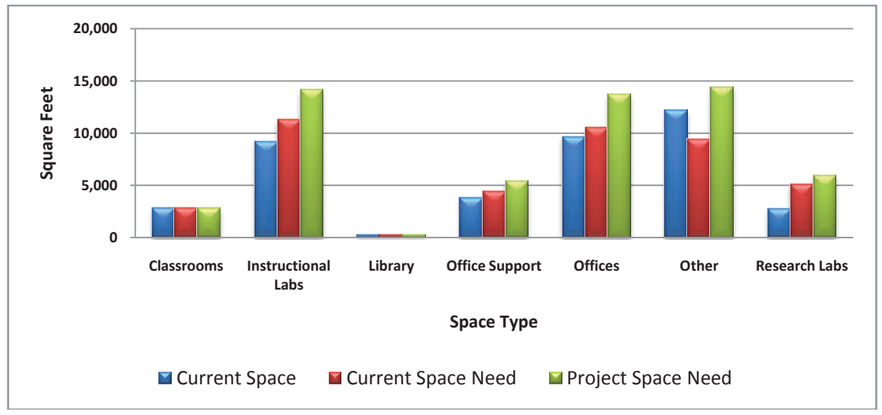
Summary Findings:

- The College of Clinical and Rehabilitative Science current calculated need (deficit) is just over 3,100 assignable square feet or 8 % more than their current space. The projected need (deficit) increases to over 15,900 assignable square feet or 39.2% more than their current space.
- All of the academic departments show a modest level of current need (deficit). For purposes of this analysis the Dental Hygiene program has been separated from the rest of Allied Health and its overall needs are adequately met by the currently assigned space.
- Communicative Disorders has the greatest future square feet need of any of the departments, with Physical Therapy and Allied Health showing the next greatest needs. Physical Therapy shows the most substantial future need based on a percentage of current space.

A college summary of the needs by room type is presented in Table 12 below:

Table 12: Space Needs by Space Type - College of Clinical & Rehab Health Sciences

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Classrooms	2,817	2,817	0	2,817	0
Instructional Labs	9,230	11,303	-2,073	14,115	-4,885
Library	261	261	0	261	0
Office Support	3,819	4,451	-632	5,402	-1,583
Offices	9,658	10,500	-842	13,671	-4,013
Other	12,176	9,434	2,742	14,434	-2,258
Research Labs	2,715	5,081	-2,366	5,911	-3,196
Totals	**40,676**	**43,847**	**-3,171**	**56,612**	**-15,936**



Summary Findings:

- Classroom space located in the Nave Center is assigned to Allied Health and because of its remote location it is not counted as part of the University's classroom pool. This space is considered to be sufficient to address any future enrollment growth.
- Instructional and research lab needs (deficits) are the areas of greatest current need. These categories also have significant future needs. However, a substantial increase for additional office space is identified in the projected need.
- All of the academic departments have a modest need for additional instructional lab space, with Physical Therapy having the most. Allied Health will likely need to add another lab to meet future requirements.
- All of the academic departments have a need for additional research lab space, with Communicative Disorders having the greatest deficit, both current and future.
- A further breakdown of the office need indicates most of the current need (deficit) is in graduate offices. The need (deficit) for faculty offices will become the primary office type required in the future (primarily for adjuncts) followed by graduate offices.
- Most of the office shortfall is in the Department of Allied Health (including Dental Hygiene).
- The future deficit in the "Other" category is due to a significant increase in clinical space required for Communicative Disorders (approximately another 4,500 assignable square feet). Also a separate clinical space is included for Physical Therapy at the Nave Center in the future needs.

Nursing

The following table summarizes the current and projected space needs as compared with the current space inventory for the programs within the College of Nursing:

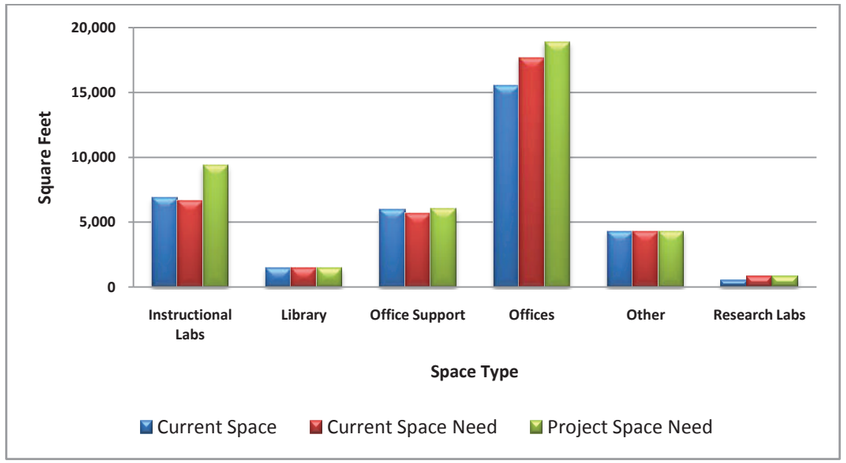
Table 13: Space Needs - College of Nursing

Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
College of Nursing	34,669	36,587	-1,918	40,914	-6,245

A college summary of the needs by room type is presented in Table 14 below:

Table 14: Space Needs by Space Type - College of Nursing

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Instructional Labs	6,870	6,665	205	9,385	-2,515
Library	1,470	1,470	0	1,470	0
Office Support	5,999	5,657	342	6,028	-29
Offices	15,515	17,672	-2,157	18,909	-3,394
Other	4,325	4,325	0	4,325	0
Research Labs	490	798	-308	798	-308
Totals	**34,669**	**36,587**	**-1,918**	**40,914**	**-6,245**



Summary Findings:

- For this analysis the programs within the College have been combined.
- The College of Nursing's current net calculated need (deficit) is just over 1,900 assignable square feet or 5.5 % more than their current space. The projected need (deficit) increases to 6,245 assignable square feet or 18% more than their current space.
- The greatest need (deficit) by room type is for offices for both current and future time frames. A need for more faculty office space is indicated in both the current and future needs, along with more graduate student offices. Additional staff office space was also identified as a possible future need.
- A need (deficit) for instructional labs is indicated in the future. This future instructional lab need includes an additional skills lab along with several more simulation labs.

Pharmacy

Table 15 summarizes the current and projected space needs as compared with the current space inventory for the programs within the College of Pharmacy:

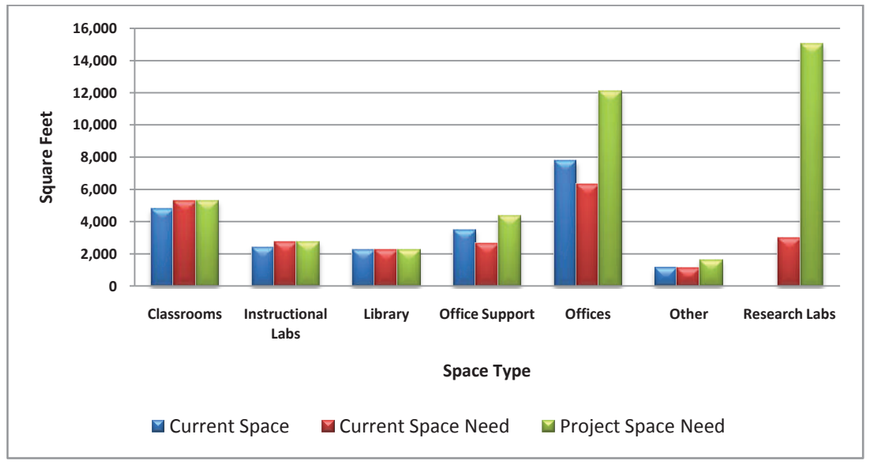
Table 15: Space Needs - College of Pharmacy

Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
College of Pharmacy	21,950	23,403	-1,453	43,427	-21,477

A college summary of the needs by room type is presented in Table 16 below:

Table 16: Space Needs by Space Type - College of Pharmacy

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Classrooms	4,805	5,300	-495	5,300	-495
Instructional Labs	2,440	2,730	-290	2,730	-290
Library	2,285	2,285	0	2,285	0
Office Support	3,500	2,636	864	4,367	-867
Offices	7,785	6,320	1,465	12,090	-4,305
Other	1,135	1,135	0	1,615	-480
Research Labs	0	2,997	-2,997	15,040	-15,040
Totals	**21,950**	**23,403**	**-1,453**	**43,427**	**-21,477**



Summary Findings:

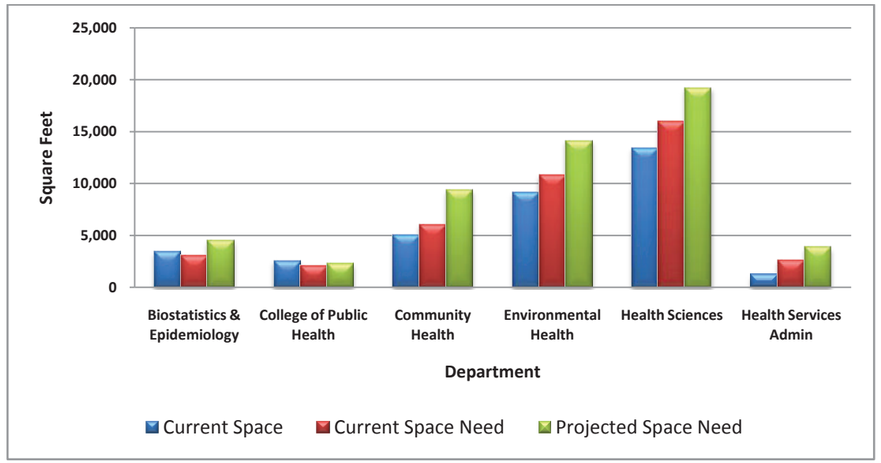
- For this analysis the programs within the College have been combined.
- The College of Pharmacy's current net calculated need (deficit) is just over 1,450 assignable square feet or about 7 % more than their current space. The projected need (deficit) increases significantly to 21,477 assignable square feet or 97.8% more than their current space.
- The greatest current need (deficit) is for research laboratories. Note: the College currently uses research labs assigned to other colleges.
- Modest expansions to their classroom and teaching lab facilities would better accommodate the existing enrollment.
- The projected space needs were developed based on a growth model developed by the College to address accreditation requirements and to meet other future facility and staffing expectations. The projected needs provide office space for growth in staffing as well as research space. THEC guidelines have been applied as applicable to correspond with the proposed program.
- The increase in the future office space need is due to both the proposed staffing additions as well as providing on-campus office space for existing "co-funded" faculty.

Public Health

Table 17 summarizes the current and projected space needs as compared with the current space inventory for the departments within the College of Public Health:

Table 17: Space Needs by Department - College of Public Health

Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Biostatistics and Epidemiology	3,452	3,038	414	4,510	-1,058
College of Public Health	2,553	2,107	446	2,302	251
Community Health	5,063	6,088	-1,025	9,353	-4,290
Environmental Health	9,106	10,814	-1,708	14,120	-5,014
Health Sciences	13,458	15,995	-2,537	19,221	-5,763
Health Services Administration	1,225	2,593	-1,368	3,841	-2,616
Totals	**34,857**	**40,636**	**-5,779**	**53,347**	**-18,490**



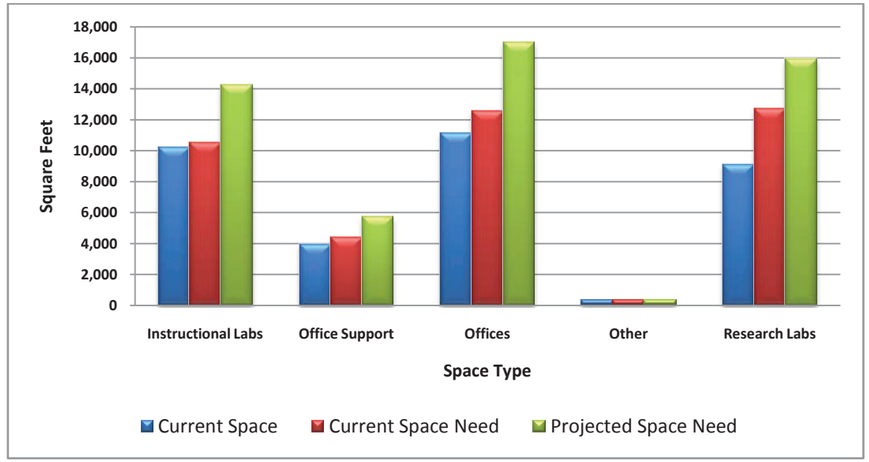
Summary Findings:

- The College of Public Health's current calculated need (deficit) is about 5,800 assignable square feet or 16.6 % more than their current space. The projected need (deficit) increases to almost 18,500 assignable square feet or 53% more than their current space.
- The results for all but one of the academic departments, identifies a current need (deficit). All of the departments have a projected need (deficit).
- The Department of Health Sciences has the greatest need (current and projected) followed by Environmental Health in terms of aggregate square feet needs.
- The Department of Health Services Administration has the most significant relative need (deficit) requiring a more than doubling of their assigned space presently.

A college summary of the needs by room type is presented in Table 18 below:

Table 18: Space Needs by Room Type - College of Public Health

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Instructional Labs	10,262	10,551	-289	14,283	-4,021
Office Support	3,963	4,402	-439	5,731	-1,768
Offices	11,145	12,590	-1,445	17,020	-5,875
Other	375	375	0	375	0
Research Labs	9,112	12,718	-3,606	15,938	-6,826
Totals	**34,857**	**40,636**	**-5,779**	**53,347**	**-18,490**



Summary Findings:

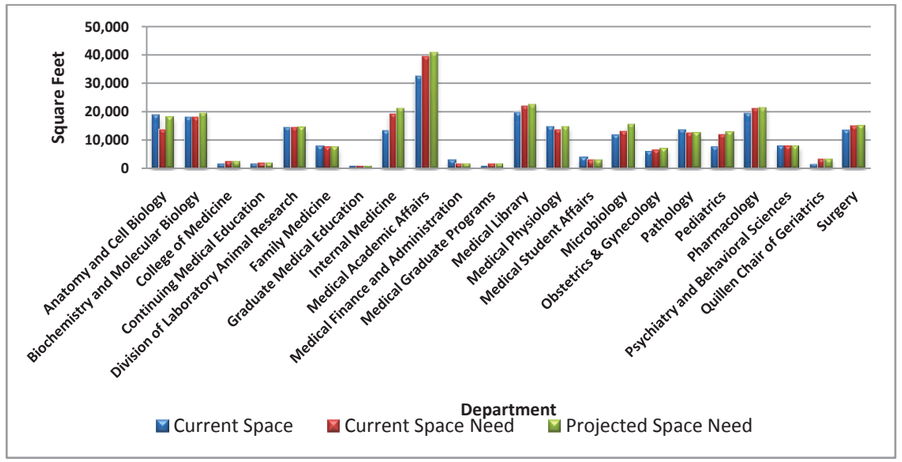
- The College space shortage, current and future, in every space type category.
- Research and office space are the greatest current needs (deficits). In the future offices are the greatest need followed by research labs and then instructional labs.
- All of the academic departments have a current need for additional research space. The three former Department of Public Health programs have needs for collaborative, group research space (project rooms) which are recognized. Health Sciences and Environmental Health have the greatest current research lab space needs. This order is reversed in the future.
- Health Sciences and Health Service Administration are the two departments with the greatest current office space need (deficits). Health Sciences has a need for about another 1,200 square feet, while Health Services Administration is short by almost 900 square feet. Health Services Administration will have the greatest aggregate need in the future. All of the departments, including the Dean's office, will have some level of an office shortfall in the future.
- The current office space need consists of student worker offices and some administrative space. The student worker space makes up about one-half of the current net deficit. Graduate student offices will be the primary office related need in the future followed by faculty offices. A significant portion of the faculty office needs are related to adjuncts.
- The modest current need for instructional labs is in the Department of Environmental Health. Future teaching lab needs likely will also require adding labs to Community Health and Health Sciences.

James H. Quillen College of Medicine

Table 19 summarizes the current and projected space needs as compared with the current space inventory for the departments within the James H. Quillen College of Medicine. The table is subdivided between the College departments located on the Johnson City VA Campus and three clinical facilities that are off-site but are included in the assessment. This separation of operations is intended to present a more accurate needs profile for the VA Campus.

Table 19: Space Needs by Department - College of Medicine

Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Anatomy and Cell Biology	18,588	13,527	5,061	17,810	778
Biochemistry and Molecular Biology	17,859	17,841	18	19,566	-1,707
College of Medicine	1,516	2,488	-972	2,488	-972
Continuing Medical Education	1,496	1,846	-350	1,846	-350
Di ision of Laboratory Animal Research	14,570	14,347	223	14,347	223
Family Medicine	7,711	7,412	299	7,412	299
Graduate Medical Education	801	689	112	689	112
Internal Medicine	13,413	19,233	-5,820	21,157	-7,744
Medical Academic Affairs	32,470	39,653	-7,183	40,903	-8,433
Medical Finance and Administration	2,896	1,703	1,193	1,703	1,193
Medical Graduate Programs	732	1,543	-811	1,543	-811
Medical Library	19,774	22,002	-2,228	22,595	-2,821
Medical Physiology	14,650	13,588	1,062	14,638	12
Medical Student Affairs	3,737	2,855	882	2,855	882
Microbiology	11,457	13,226	-1,769	15,445	-3,988
Obstetrics Gynecology	5,990	6,311	-321	7,050	-1,060
Pathology	13,712	12,368	1,344	12,368	1,344
Pediatrics	7,475	11,628	-4,153	12,833	-5,358
Pharmacology	19,555	21,140	-1,585	21,335	-1,780
Psychiatry and Beha ioral Sciences	7,859	7,825	35	7,825	35
Quillen Chair of Geriatrics	1,340	3,125	-1,785	3,125	-1,785
Surgery	13,448	15,083	-1,635	15,083	-1,635
Totals-VA Campus	**231,049**	**249,432**	**-18,383**	**264,615**	**-33,566**
Family Medicine - Bristol Clinic	12,422	14,672	-2,250	17,227	-4,805
Family Medicine - Johnson City Clinic	8,095	13,598	-5,503	15,973	-7,878
Family Medicine - Kingsport Clinic	7,182	11,183	-4,001	12,500	-5,318
Totals- Off Site Clinics	**27,699**	**39,453**	**-11,754**	**45,700**	**-18,001**
Totals	**258,748**	**288,885**	**-30,137**	**310,314**	**-51,566**



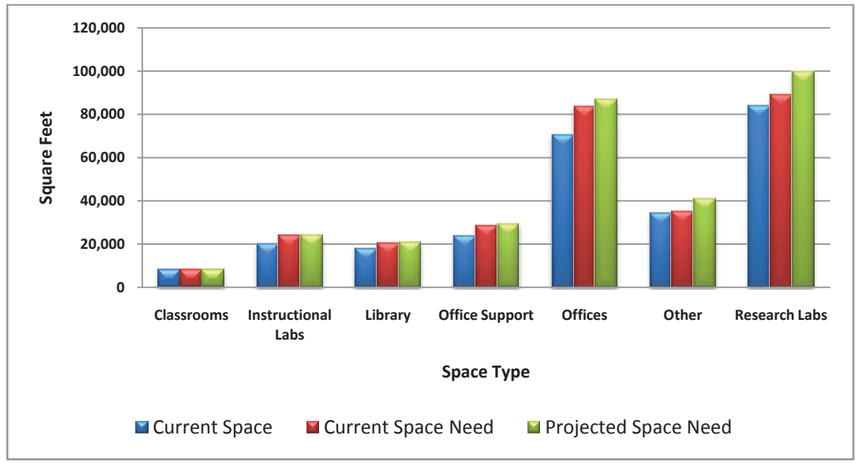
Summary Findings:

- The College of Medicine's current calculated need (deficit)for the VA Campus is about 18,400 assignable square feet or 8% more than their current space. The projected need (deficit) increases to about 33,550 assignable square feet or 14.5 % more than their current space.
- The three Family Medicine clinical facilities have a combined current need (deficit) of almost 11,750 assignable square feet (42.4%), and a future deficit of over 18,000 assignable square feet (65%).
- For analysis purposes all of the instructional space for the College has been assigned to the Medical Academic Affairs department. Because of this consolidation of these assignments Medical Academic Affairs has the greatest space need (deficit) of all of the units in the College. Internal Medicine and Pediatrics are the two academic departments showing the greatest current and future needs.

A college summary of the needs by room type is presented in Table 20 below:

Table 20: Space Needs by Room Type - College of Medicine

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Classrooms	7,929	7,929	0	7,929	0
Instructional Labs	20,155	23,989	-3,834	23,989	-3,834
Library	17,822	20,512	-2,690	21,105	-3,283
Office Support	23,827	28,591	-4,764	29,505	-5,678
Offices	70,567	83,737	-13,170	86,783	-16,216
Other	34,196	34,902	-706	41,149	-6,953
Research Labs	84,252	89,225	-4,973	99,854	-15,602
Totals	**258,748**	**288,885**	**-30,137**	**310,314**	**-51,566**



Summary Findings:

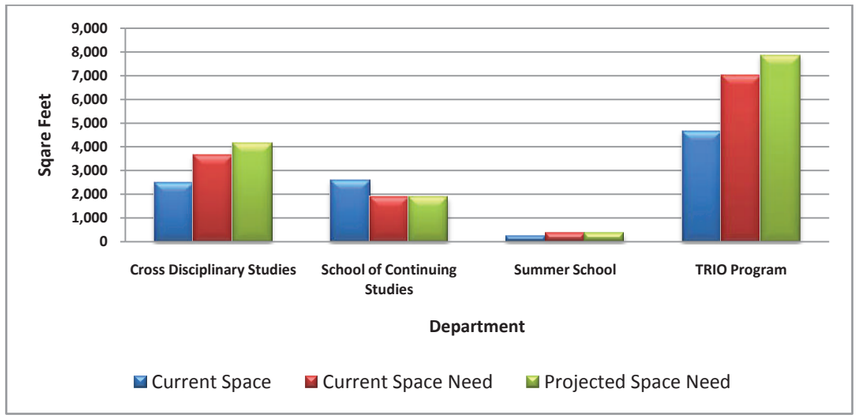
- The greatest need (deficit) by space type in this College is for offices followed by research labs.
- On the VA Campus the departments of Internal Medicine and Pediatrics have the greatest needs (deficits) for offices, both current and projected. The three Family Medicine clinics have an aggregate need (deficit) doubling their current assigned office space.
- The VA Campus departments have a significant (26%) shortfall in faculty offices currently that increases to 35% in the long term. Some additional staff offices are also needed. The VA Campus departments also have a calculated office support space need that more than doubles the current space. The opposite is the case for the Family Medicine clinics, where there is a significant need for staff offices and a more modest need for faculty offices. The office support needs for the clinics is also sizable.
- Research space for the college is currently deficient by about 6%, this will increase to over 18% in the future. Of the thirteen departments that have research space six have sufficient space and seven have needs (deficits) ranging from several hundred to several thousand square feet. Internal Medicine and Pediatrics have the greatest current needs (deficits), with Biochemistry's future requirements slightly exceeding Pediatrics.
- The College has about a 19% shortfall for instructional lab space. Additional simulation labs are recognized within this need as well as a number of project rooms for collaborative work and study among the students. These project rooms are assumed to meet the stated requirement for student study space.
- The future deficit identified under the "other" space category relates to the clinical space needs for the three Family Practice clinics. There is a current need (deficit) is at the Johnson City facility, while future deficits are identified at all three. The future clinical deficit is about 50% greater than the current space assigned.

School of Continuing Studies

Table 21 summarizes the current and projected space needs as compared with the current space inventory for the departments within the School of Continuing Studies:

Table 21: Space Needs - School of Continuing Studies

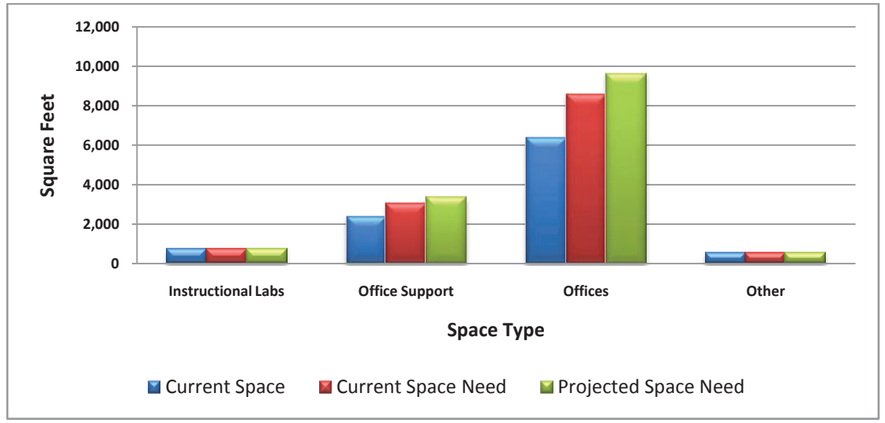
Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Cross Disciplinary Studies	2,493	3,640	-1,147	4,157	-1,664
School of Continuing Studies	2,593	1,907	686	1,907	686
Summer School	250	364	-114	364	-114
TRIO Program	4,685	7,046	-2,361	7,876	-3,191
Totals	**10,021**	**12,957**	**-2,936**	**14,304**	**-4,283**



A summary of the needs by room type is presented in Table 22 below:

Table 22: Space Needs by Space Type - School of Continuing Studies

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Instructional Labs	740	740	0	740	0
Office Support	2,376	3,055	-679	3,366	-990
Offices	6,360	8,617	-2,257	9,653	-3,293
Other	545	545	0	545	0
Totals	**10,021**	**12,957**	**-2,936**	**14,304**	**-4,283**



Summary Findings:

- The School of Continuing Studies current calculated need (deficit) is just over 2,900 assignable square feet or 29% more than their current space. The projected need (deficit) increases to almost 4,300 square feet or 42.7 % more than their current space.
- The TRIO Program and Cross Disciplinary Studies departments have almost all of the identified deficits.
- Based on office type, 60% of the projected deficit is in student worker office space and unmet needs for graduate student offices. There is a need to double the administrative office space.

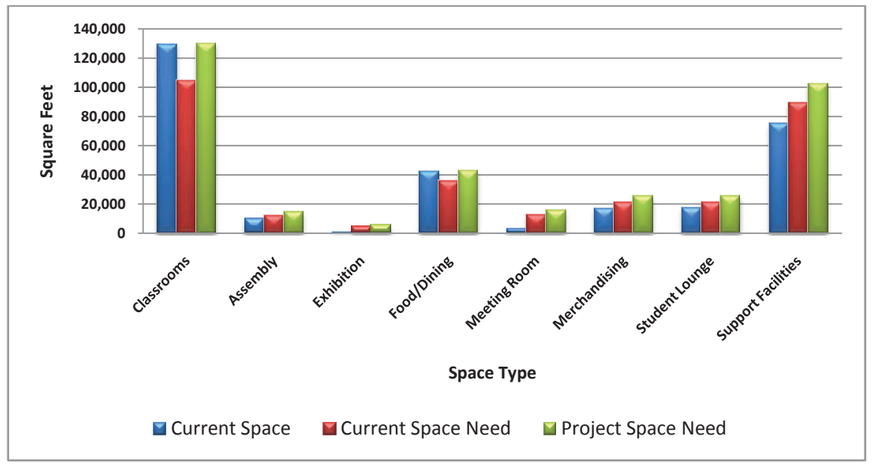
Campus-Wide Space

Certain types of space on campus are generic in their use and typically are shared by various University users. These types of space are considered to be University resources and not necessarily assigned to a specific department. These "campus-wide" spaces have therefore been assigned and identified in a separate category for analysis and modeling purposes for this study.

A summary of the Campus-Wide needs by major room type is presented in Table 23 below:

Table 23: Space Needs - Campus-Wide

Space Type	Current Space	Current Space Need	Diff from Current Space	Project Space Need	Diff from Current Space
Classrooms	129,894	104,693	25,201	130,500	-606
Assembly	9,775	12,609	-2,834	14,969	-5,194
E hibition	1,093	5,033	-3,940	5,819	-4,726
Food Dining	42,668	35,685	6,983	43,393	-725
Meeting Room	3,134	13,181	-10,047	15,960	-12,826
Merchandising	17,367	21,217	-3,850	25,938	-8,571
Student Lounge	17,857	21,217	-3,360	25,938	-8,081
Support Facilities	75,090	89,308	-14,218	102,443	-27,353
Totals	**296,878**	**302,943**	**-6,065**	**364,958**	**-68,080**



Summary Findings:

- Within the aggregated campus-wide category the net need (deficit) is about 6,200 square feet, whereas the future need (deficit) will be about 68,200 assignable square feet or 23% more than the currently assigned space.
- Support facilities generate the greatest need (deficit), followed by meeting rooms, student lounge and merchandising space. All of the categories indicate some level of deficiency in the future scenario.
- Classroom space located on the Johnson City main campus has been grouped in this category irrespective of who schedules the rooms. Classrooms assigned to the Colleges of Medicine and Pharmacy as well as those located at the Nave Center and Natural History Museum have been assigned directly to those units and are not included in this summary. The calculated needs assume the University can achieve the utilization criteria specified by the THEC space guidelines. Therefore, based on the calculated square footage the University's existing classroom space is sufficient to meet the current demand. A slight future deficit is indicated. A more detailed assessment of the classroom needs is presented in the classroom assessment section of this report.
- With the exception of the support facilities space type, the other categories relate to student life spaces. The most significant deficiencies impacting student life are in student lounges and meeting room space.
- The support facilities category generates the greatest need (deficit), ranging from a current deficit of about 14,200 assignable square feet to a future deficit of almost 27,350 assignable square feet. This space type grouping encompasses such areas as general storage, shops, waste storage and vehicular storage.
- The current square feet figure in Table 23 above does not include the 21,432 square feet of space that is included in the campus wide data displayed in Table 2 above. This space has been classified as unassigned and available for reassignment/repurposing to address other unmet needs of the campus.

Academic and Administrative Support Departments

The following section presents summary data by division for the academic and administrative support departments for the University.

Provost/Academic Affairs

Provost/Academic Affairs

Table 24 summarizes the current and projected space needs as compared with the current space inventory for the departments within the Provost's Office and other academic support direct reports.

Table 24: Space Needs by Department - Provost

Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Academic Affairs	11,447	11,575	-128	11,575	-128
Academic Technology Support	7,151	8,304	-1,153	8,304	-1,153
Faculty Senate	460	440	20	440	20
Honors College	8,899	7,703	1,196	8,074	825
Office of Planning & Assessment	1,530	1,459	71	1,459	71
School of Graduate Studies	3,620	3,078	542	3,078	542
Sherrod Library	119,963	82,457	37,506	93,822	26,141
Totals	**153,070**	**115,016**	**38,054**	**126,753**	**26,317**

A summary of the needs by room type is presented in Table 25 below:

Table 25: Space Needs by Space Type - Provost

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Instructional Labs	3,240	3,240	0	3,240	0
Library	107,534	72,070	35,464	81,702	25,832
Office Support	9,683	8,485	1,198	9,093	590
Offices	20,974	20,665	309	22,160	-1,186
Other	9,776	8,694	1,082	8,694	1,082
Research Labs	1,863	1,863	0	1,863	0
Totals	**153,070**	**115,016**	**38,054**	**126,753**	**26,317**

Summary Findings:

- The Academic Technology Support department is the only unit indicating a net space need (deficit). The need is for additional office and office support space.
- The office type indicating the greatest need (deficit) is student offices, along with a modest need for administrative, faculty and graduate offices.

- The calculation for the Sherrod Library indicates there is adequate capacity to accommodate both the current and projected needs of the library. A sizable space surplus was identified.

Enrollment Services

Table 26 summarizes the current and projected space needs as compared with the current space inventory for the departments within the Enrollment Services group:

Table 26: Space Needs by Department - Enrollment Services

Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Admissions	9,120	9,899	-779	10,667	-1,547
Financial Aid Office	4,745	5,971	-1,226	6,724	-1,979
Registrar	5,275	5,715	-440	6,271	-996
Totals	19,140	21,585	-2,445	23,662	-4,522

A summary of the needs by room type is presented in Table 27 below:

Table 27: Space Needs by Space Type - Enrollment Services

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Office Support	8,012	8,510	-498	9,069	-1,057
Offices	9,968	11,915	-1,947	13,432	-3,464
Other	1,160	1,160	0	1,160	0
Totals	19,140	21,585	-2,445	23,662	-4,522

Summary Findings:

- The Enrollment Services departments' current calculated need (deficit) is about 2,400 assignable square feet or 12.8 % more than their current space. The projected need (deficit) increases to over 4,500 assignable square feet or 23.6 % more than their current space.
- All of the departments indicate some level of a space shortfall.
- All of the office types indicate a deficit in the future. Student worker and graduate student offices have the greatest need (deficit). The office service category also has a calculated future deficit of about 1,100 assignable square feet.

Research and Sponsored Programs

Table 28 summarizes the current and projected space needs as compared with the current space inventory for the departments within the Research and Sponsored Programs group:

Table 28: Space Needs by Department - Research and Sponsored Programs

Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Center for Community Outreach	2,465	1,885	580	1,885	580
Research and Sponsored Programs Admin	4,031	2,085	1,946	2,085	1,946
Totals	**6,496**	**3,970**	**2,526**	**3,970**	**2,526**

A summary of the needs by room type is presented in Table 29 below:

Table 29: Space Needs by Space Type - Research and Sponsored Programs

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Office Support	2,519	1,120	1,399	1,120	1,399
Offices	3,977	2,850	1,127	2,850	1,127
Totals	**6,496**	**3,970**	**2,526**	**3,970**	**2,526**

Summary Findings:

- The two departments in this grouping appear to be adequately housed.

Student Affairs

Table 30 summarizes the current and projected space needs as compared with the current space inventory for the departments within the Student Affairs group:

Table 30: Space Needs by Department - Student Affairs

Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Advisement, Resources, Career Ctr	11,255	10,565	691	11,486	-231
Campus ID Services	700	897	-197	897	-197
Campus Recreation	75,302	64,033	11,269	71,919	3,383
Counseling Center	2,775	3,132	-357	4,144	-1,369
Disability Services	3,334	3,524	-190	3,524	-190
East Tennessean Newspaper	961	1,163	-202	1,163	-202
Housing and Residence Life	3,100	2,776	324	2,936	164
Student Affairs Division	2,773	2,844	-71	2,844	-71
Student Org Resource Center	6,756	8,865	-2,109	8,865	-2,109
University Center	25,038	20,445	4,593	21,897	3,141
Totals	**131,994**	**118,243**	**13,751**	**129,675**	**2,319**

A summary of the needs by room type is presented in Table 31 below:

Table 31: Space Needs by Space Type - Student Affairs

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Instructional Labs	165	165	0	165	0
Library	320	320	0	320	0
Office Support	13,736	12,514	1,222	13,159	577
Offices	22,503	24,040	-1,537	25,899	-3,396
Other	95,270	81,204	14,066	90,132	5,138
Totals	**131,994**	**118,243**	**13,751**	**129,675**	**2,319**

Summary Findings:

- Two of the ten departments in Student Affairs have a relatively significant future net need (deficit). The Counseling Center and Student Organization Resource Center have deficiencies in office space including support space.
- Campus recreation space appears to be sufficient to meet both the current and future campus needs. This is reflected in the department total and is a part of the "Other" category.
- Meeting room space is also identified as contributing to the surplus in the "Other" category. Although the aggregate square feet of meeting room space assigned to the University Center is sufficient, the number of meeting rooms appears to be inadequate to meet the demand.

Finance and Administration

Table 32 summarizes the current and projected space needs as compared with the current space inventory for the departments within the Finance and Administration division:

Table 32: Space Needs by Department - Finance and Administration

Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Budget and Financial Planning	891	944	-53	944	-53
Facilities Management	7,803	7,736	67	7,736	67
Finance and Administration	751	796	-45	796	-45
Financial Services	9,857	8,071	1,787	8,071	1,787
Human Resources	4,958	4,744	214	4,744	214
Information Technology	22,018	23,474	-1,456	25,284	-3,266
Parking & Transportation Services	1,113	751	362	751	362
Procurement & Contract Services	2,541	2,691	-150	2,691	-150
Public Safety	2,131	2,314	-183	2,314	-183
Totals	**52,063**	**51,520**	**543**	**53,330**	**-1,267**

A summary of the needs by room type is presented in Table 33 below:

Table 33: Space Needs by Space Type - Finance and Administration

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Instructional Labs	8,890	8,890	0	10,700	-1,810
Office Support	15,191	14,792	399	14,792	399
Offices	25,995	25,058	937	25,058	937
Other	1,987	2,780	-793	2,780	-793
Totals	**52,063**	**51,520**	**543**	**53,330**	**-1,267**

Summary Findings:

- The Office of Information Technology has the greatest need (deficit) both currently and in the future. The needs for this department are mostly in the office and office support categories with some future need identified for additional campus open computer labs.
- The needs (deficits) identified for the other departments in this division are for more office service/support space.
- The deficit identified under the "Other" space type category relates to support space requirements for Public Safety. In addition, this department should be relocated to a more central part of the campus.

Health Affairs

Table 34 summarizes the current and projected space needs as compared with the current space inventory for the departments within the Health Affairs administrative group:

Table 34: Space Needs by Department - Health Affairs

Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Health Affairs	2,085	1,584	501	1,584	501
Rural and Community Health	1,817	959	858	959	858
Totals	**3,902**	**2,543**	**1,359**	**2,543**	**1,359**
Falls Prevention Center	331	262	69	1,750	-1,419

Table 35: Space Needs by Space Type - Health Affairs

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Office Support	1,202	955	247	955	247
Offices	2,700	1,588	1,112	1,588	1,112
Totals	**3,902**	**2,543**	**1,359**	**2,543**	**1,359**

Summary Findings:

- The two departments are adequately housed.
- A separate needs assessment was completed for the Fall Prevention Center. Additional clinical space will be required for this operation in the future.

President

Table 36 summarizes the current and projected space needs as compared with the current space inventory for the departments reporting to the President's Office:

Table 36: Space Needs by Department - President

Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Intercollegiate Athletics	138,454	137,034	1,420	150,020	-11,566
Internal Audit	1,475	862	613	862	613
Office of Equity and Diversity	614	520	94	520	94
Office of University Counsel	910	958	-48	958	-48
President's Office	3,190	2,888	302	2,888	302
University Relations	2,686	3,557	-871	3,557	-871
University Relations/WETS	2,292	3,343	-1,051	3,343	-1,051
Women's Resource Center	0	351	-351	351	-351
Totals	**149,621**	**149,512**	**109**	**162,498**	**-12,877**

A summary of the needs by room type is presented Table 37 below:

Table 37: Space Needs by Room Type - President

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Library	378	378	0	378	0
Office Support	6,130	7,209	-1,079	7,209	-1,079
Offices	19,015	15,712	3,303	15,712	3,303
Other	124,098	126,214	-2,116	139,200	-15,102
Totals	**149,621**	**149,512**	**109**	**162,498**	**-12,877**

Summary Findings:

- University Relations and University Relations/WETS are the two departments in this division with a space need (deficit) identified. The needs for these departments are for additional office and office support space.
- Six of the eight departments have an office support shortfall that contribute to the total future deficit of over 12,800 assignable square feet.
- The deficit identified under the "Other" space type category relates to athletic space requirements for Intercollegiate Athletics.

University Advancement

Table 38 summarizes the current and projected space needs as compared with the current space inventory for the departments within University Advancement:

Table 38: Space Needs by Department - University Advancement

Department	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
University Advancement	7,006	5,719	1,287	9,678	-2,672

A summary of the needs by room type is presented in Table 39 below:

Table 39: Space Needs by Space Type - University Advancement

Space Type	Current Space	Current Space Need	Diff from Current Space	Projected Space Need	Diff from Current Space
Office Support	2,448	1,799	649	2,828	-380
Offices	4,320	3,620	700	6,250	-1,930
Other	238	300	-62	600	-362
Totals	**7,006**	**5,719**	**1,287**	**9,678**	**-2,672**

Summary Findings:

- For assessment purposes the offices within this division have been combined. Their current space is adequate.
- A future shortfall of just over 38% compared with their current assigned space will occur in the future if projected staffing levels are achieved.

Peer Data Comparison

Table 40 presents the peer institution comparison data collected during this analysis. This table excludes the Colleges of Medicine and Pharmacy. For additional detailed data regarding the peer institution data collected see the Appendix.

Table 40: Peer Data Comparison - University Summary (excluding Medicine and Pharmacy)

University	Peer Average	Peer Median	Similar Universities Average *	ETSU Current Space	CFP Projected Need
FTE Students	17,088	17,909	11,482	9,713	12,184
Classrooms	168,003	167,003	117,581	136,188	135,904
ASF / FTE Student	9.8	9.3	10.2	14.0	11.2
Laboratories	369,003	337,611	288,826	238,017	345,025
ASF / FTE Student	21.6	18.9	25.2	24.5	28.3
Offices	636,085	625,725	330,818	387,410	492,091
ASF / FTE Student	37.2	34.9	28.8	39.9	40.4
Library	182,249	176,755	159,401	125,419	101,322
ASF / FTE Student	10.7	9.9	13.9	12.9	8.3
Special Use	307,186	341,580	255,604	226,807	243,657
ASF / FTE Student	18.0	19.1	22.3	23.4	20.0
General Use	330,135	277,111	220,329	169,183	222,016
ASF / FTE Student	19.3	15.5	19.2	17.4	18.2
Support	259,930	160,216	108,357	75,090	102,443
ASF / FTE Student	15.2	8.9	9.4	7.7	8.4
Total ASF	2,252,590	2,086,001	1,480,916	1,358,114	1,642,458
ASF / FTE Student	131.8	116.5	129.0	139.8	134.8

Note: Excludes Vehicle Storage, Health Care Facilities & Residence Halls:

* Includes Bowling Green State University, Indiana State University, Northern Kentucky University, Wright State University, and Youngstown State University

Summary Findings:

- The overall comparative ratios for the ETSU projected space needs with the peer institution and Similar Institution data indicates the calculated needs are in line with the conditions at the comparable institutions.
- The categorical comparative ratios also appear to confirm that the calculated needs are reasonable.

Classroom and Instructional Laboratory Analysis

The scope of the Academic Mater Plan includes a detailed analysis of the University's instructional space. This section reviews the utilization and condition data relevant to the current classroom and instructional lab supply. The following assumptions have been applied in the assessment of the classrooms:

- The THEC classroom guidelines have been used in generating the estimated classroom space needs and applied in the consultant's analysis of the capacity of the classroom supply to met expected future demand.
- A 25% across-the-board enrollment increase above Fall 2008 is assumed.
- Assume day / evening mix of classes will not change from Fall 2008 mix (86% of Weekly Student Contact Hours occur during the day) – therefore daytime utilization determines long-term class room need.

Classroom Data Profile – Fall 2008

Classroom Supply

The University's space inventory and schedule of classes (class file) databases were used to develop a profile of the number of classrooms available (supply) and the instructional demand for classrooms as of the Fall 2008 semester. During the course of the study, rooms that were determined to be departmentally scheduled or dedicated to a specific discipline were classified separately from those scheduled by the Registrar's office. Distance learning classrooms were also considered as part of the supply. Furthermore, the classroom supply has been modified with the addition of five rooms that are planned to be on-line in the near future located in Ross Hall and the Gray Fossil Site facility. A summary of these rooms is presented in Table 41 including service rooms:

Table 41: Classroom Supply - All Rooms

Room Type	No. of Rooms	Square Feet	Capacity	Avg. Room Size	Average No. of Stations	Avg. Station Size
Registrar Scheduled Classrooms	77	75,005	4,565	974.1	62.5	15.8
Department Scheduled Classrooms	68	64,248	2,603	944.8	40.0	23.5
Distance Learning Classrooms	6	5,216	155	869.3	25.8	33.7
Subtotals	**151**	**144,469**	**7,323**	**956.7**	**50.9**	**18.9**
Classroom Service Rooms	42	4,453	0	106.0		
Totals	**193**	**148,922**	**7,323**	**771.6**	**39.2**	**19.6**

- The University has 148,922 assignable square feet in classroom space including service rooms with a total seating capacity of 7,323 (Note: the five new rooms added to the supply do not have any reported seating capacities at this time).

- A breakdown of these rooms by the areas responsible for scheduling indicates the number of rooms scheduled by the Registrar is 77, for a total of just over 75,000 square feet. There are 68 department scheduled classrooms that total just under 64,250 square feet. There are also six distance learning classrooms that are being included in the supply that have just over 5,200 square feet.
- The average number of seats per room is significantly less in the department scheduled rooms than the Registrar scheduled rooms, while the station size is much greater..
- For purposes of this analysis the classroom supply is considered to include 138 of the 151 total rooms. Thirteen of the department classrooms are not included because they are not located on the main campus (located on the VA campus, Gray Fossil Site or Nave Center). The modified classroom supply for the 138 rooms therefore totals 129,894 assignable square feet and 6,699 seats.

A detailed listing of both Registrar and departmental classrooms is presented in the Appendix.

Summaries of the classroom supply by building is presented in the tables below.

Table 42: Registrar Scheduled Classrooms by Building

	Building	No. of Rooms	Square Feet	Capacity	Average Room Size	Average No. of Seats	Average Station Size
A0014	BURLESON HALL	11	9,200	403	836.4	36.6	22.8
A0003	D M BROWN HALL	9	13,873	1,111	1,541.4	123.4	12.5
A0006	ERNEST C BALL HALL	1	1,850	188	1,850.0	188.0	9.8
A0010	GILBREATH HALL	4	2,715	164	678.8	41.0	16.6
A0019	JOHN P. LAMB HALL	4	2,260	183	565.0	45.8	12.3
A0005	MATHES HALL	1	215	25	215.0	25.0	8.6
A0007	MEMORIAL CENTER	2	1,880	81	940.0	40.5	23.2
A0021	ROGERS-STOUT HALL	24	23,501	1,594	979.2	66.4	14.7
A0131	ROSS HALL	4	2,781	NA	695.3	NA	NA
A0012	SAM WILSON HALL	9	7,655	477	850.6	53.0	16.0
A0008	WARF-PICKEL HALL	7	8,205	299	1,172.1	42.7	27.4
A0017	WILSON-WALLIS HALL	1	870	40	870.0	40.0	21.8
	Totals	**77**	**75,005**	**4,565**	**974.1**	**62.5**	**15.8**

Table 43: Department Scheduled Classrooms by Building

	Building	No. of Rooms	Square Feet	Capacity	Average Room Size	Average No. of Seats	Average Station Size
A4001	BUILDING 1 MED SCHOOL	1	600	10	600.0	10.0	60.0
A4002	BUILDING 2 DOMICIARY	1	890	30	890.0	30.0	29.7
A4006	BUILDING 6 MED SCHOOL	1	545	16	545.0	16.0	34.1
A4007	BDLG. 7 PHARMACY SCHOOL	4	4,805	234	1,201.3	58.5	20.5
A4178	BLDG. 178 STANTON-GERBER	2	5,598	246	2,799.0	123.0	22.8

	Building	No. of Rooms	Square Feet	Capacity	Average Room Size	Average No. of Seats	Average Station Size
A0332	CHILD STUDY CENTER	1	598	30	598.0	30.0	19.9
A0003	D M BROWN HALL	1	700	40	700.0	40.0	17.5
A0904	DIGITAL MEDIA CENTER	3	3,305	52	1,101.7	17.3	63.6
A0010	GILBREATH HALL	2	2,085	99	1,042.5	49.5	21.1
A0354	GRAY FOSSIL SITE	1	2,587	NA	2,587.0	NA	NA
A0018	HUTCHESON HALL	2	1,200	70	600.0	35.0	17.1
A0019	JOHN P. LAMB HALL	10	7,105	380	710.5	38.0	18.7
A0005	MATHES HALL	2	540	43	270.0	21.5	12.6
A0007	MEMORIAL CENTER	2	1,925	88	962.5	44.0	21.9
A0009	MEMORIAL HALL	1	560	21	560.0	21.0	26.7
A0701	NAVE PARAMEDICAL	3	2,610	89	870.0	29.7	29.3
A0021	ROGERS-STOUT HALL	6	3,382	107	563.7	17.8	31.6
A0020	ROY S. NICKS HALL	11	12,625	526	1,147.7	47.8	24.0
A0012	SAM WILSON HALL	5	4,470	211	894.0	42.2	21.2
A0008	WARF-PICKEL HALL	4	3,168	140	792.0	35.0	22.6
A0017	WILSON-WALLIS HALL	3	3,460	142	1,153.3	47.3	24.4
A0129	YOAKLEY HALL	2	1,490	30	745.0	15.0	49.7
	Totals	**68**	**64,248**	**2,604**	**944.8**	**40.1**	**23.5**

Current Classroom Utilization

The table below summarizes the scheduled classroom utilization data for the Registrar and department scheduled classrooms for Fall 2008 that had reported utilization. The instructional demand data of Weekly Room Hours, Weekly Student Contact Hours, total enrollments, and average section size provide a basis from which future instructional demand is calculated.

Table 44: Summary of Fall 2008 Classroom Utilization

Room Type Category	Timeframe	Avg. Weekly Room Hours	Station Occup.	Weekly Student Contact Hours	Enrollments	Total Sections	Avg. Section Size
Registrar Classrooms	Daytime Use	27.8	55.1%	69,835	23,641	725	32.6
	All Day Use (3)	34.1	50.7%	78,817	25,848	820	31.5
Depart. Scheduled Classrooms (1)	Daytime Use	15.1	63.0%	17,744	6,454	280	23.1
	All Day Use (3)	20.6	58.5%	22,485	7,319	318	23.0
Distance Learning Classrooms (2)	Daytime Use	23.1	95.6%	1,897	670	34	19.7
	All Day Use (3)	35.9	94.8%	2,922	931	46	20.2
All Classrooms	Daytime Use	22.8	60.2%	89,476	30,765	1,039	29.6
	All Day Use (3)	29.0	55.1%	104,224	34,098	1,184	28.8

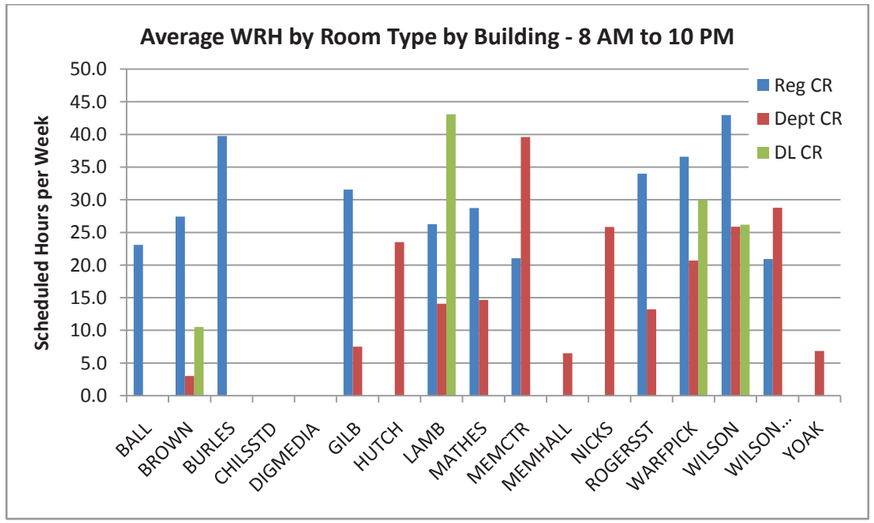
(1) Six department scheduled rooms did not have any reported use and are not reflected in these statistics.
(2) Two distance learning rooms did not have any reported use and are not reflected in these statistics.

(3) Assumes Friday evening hours are not used.

- Of the 138 rooms included as part of the classroom supply, 124 had reported utilization.
- The daytime Weekly Room Hour (WRH) use for Registrar scheduled classrooms is 27.8 or 2.2 hours below the THEC guideline of 30 WRH. The department scheduled classrooms are almost 15 hours below the guidelines. The distance learning rooms are schedule at 23.1 hours per week or about seven hours below the guideline.
- The daytime station occupancy for the Registrar scheduled classrooms is about 5% below the THEC guideline of 60%. The department scheduled classrooms exceed the guideline by three percent. Distance learning classrooms are almost filled to capacity.
- When all of the room types are combined the average weekly room hour usage is about seven hours less than the guidelines, and station occupancy matches the criteria.

Detailed room utilization statistics can be found in the Appendix.

The chart below graphically presents a breakdown of the weekly room hour utilization of the classrooms by building and by type of classroom:

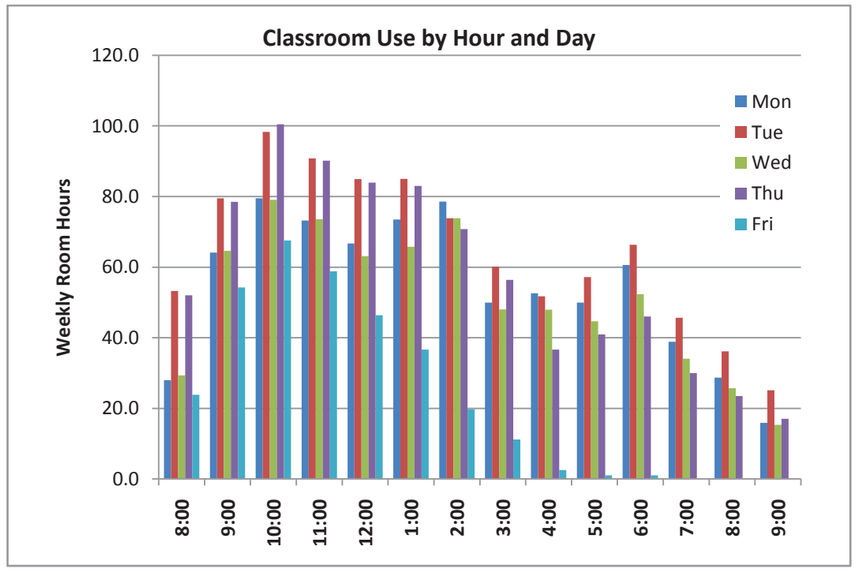


Time by Day

The following graph indicates the number of classrooms used each hour for the 8 AM to 10 PM timeframe for each day of the week for Fall 2008 semester for the 124 classrooms that had reported scheduled use.

Table 45: Time by Day - 8 AM to 5 PM

Begin Time	Monday	Tuesday	Wed	Thursday	Friday	Total
8:00 AM	28.0	53.3	29.3	52.0	23.8	186.4
9:00	64.1	79.5	64.6	78.5	54.3	340.9
10:00	79.5	98.3	79.1	100.5	67.6	425.0
11:00	73.2	90.8	73.6	90.2	58.8	386.6
12:00 PM	66.7	84.9	63.1	83.9	46.3	344.9
1:00	73.5	85.0	65.7	83.0	36.7	343.9
2:00	78.6	73.8	73.8	70.8	19.8	316.7
3:00	49.9	60.1	48.0	56.4	11.2	225.6
4:00	52.6	51.7	47.9	36.7	2.5	191.4
5:00	49.9	57.2	44.7	40.9	1.0	193.7
6:00	60.6	66.3	52.3	46.0	1.0	226.3
7:00	38.8	45.7	34.1	30.0	0.0	148.6
8:00	28.7	36.2	25.7	23.5	0.0	114.0
9:00	15.9	25.1	15.3	17.0	0.0	73.3
Total	**759.9**	**907.9**	**717.3**	**809.3**	**322.9**	**3,517.3**



- This "intensity of use" profile may be useful in identifying time periods during the days of the week where opportunities for more efficient use of the rooms might be available.
- Peak periods are at 10 AM on Tuesday and Thursday.

- The most intensely scheduled days of the week are Tuesdays and Thursdays. The peak hours of use range between 9 AM and 2 PM. Utilization on Fridays is less than one-half of any other day of the week.
- The 8 AM hour is not very heavily used. Use in the afternoon between 3 PM and 6 PM utilization drops off and comes back up at 6 PM, and then drops off significantly during the remaining evening hours.

Classroom Condition

As a part of the overall assessment of the classroom supply, an analysis of the existing conditions of the classrooms was undertaken to determine the quality of the rooms . Of the 151 classrooms, physical condition data was collected on 141 of them. Note: five of these rooms were not on-line at the time of this study. The data collected included such characteristics of each room such as seating type, teaching surfaces, lighting quality, ambient noise, sight lines and aspect ratios, technology and other general conditions. This data was compared to a set of criteria or room features that a quality classroom should include, and where the existing condition varies from the model a "deficiency" was recorded. The identified deficiencies have been grouped into several generic categories including accessibility, building/structural, general, maintenance, room improvements and technology. A summary of the number of the classroom deficiencies identified and estimated corrective costs for these categories are presented in Table 46 below:

Table 46: Summary of Classroom Deficiencies

Deficiency Category	No. of Deficiencies	Estimated Costs to Correct
ADA Requirements	330	$98,800
Building or Structural	371	$60,750
General	32	$0
Maintenance	173	$298,150
Room Improvements	603	$490,850
Technology Improvements	151	$121,700
Totals	**1,660**	**$1,070,250**

The Room Improvements grouping has the greatest number of identified deficiencies along with the greatest cost to correct. Some of the most prevalent deficiencies within this category included insufficient chalkboards/whiteboards; long rooms with flat floors (sight lines); insufficient lighting controls; and a lack of projection screens. A listing of the frequency of all of the identified deficiencies is in the Appendix. Detailed room-by-room deficiency reports are on-file with the Department of Facilities Management, Planning and Construction.

By combining the scheduled room utilization with the condition information a data profile can be developed that may be useful in targeting rooms for either upgrading or repurposing to other uses. As an illustration of how this data may be applied, the two tables presented below identify the top ten rooms rated as the most deficient/high use and rooms with some of the lowest use that are comparatively highly deficient.

Table 47: Most Deficient Classrooms with High Utilization

Building	Room Number	Square Feet	Capacity	Percent Deficient	Weekly Room Hours	Estimated Correction Costs
Brown Hall	476	735	54	33.6%	36.2	$18,836
Brown Hall	370	1,313	79	33.6%	41.0	$21,920
Warf-Pickel Hall	517	955	16	31.8%	30.0	$7,632
Lamb Hall	138	810	24	28.0%	43.1	$5,579
Sam Wilson Hall	334	1,230	60	27.4%	30.3	$4,800
Rogers-Stout Hall	102	1,711	178	26.4%	35.7	$48,694
Warf-Pickel Hall	315	1,825	48	26.2%	42.8	$8,051
Warf-Pickel Hall	511	1,010	40	25.2%	43.5	$7,431
Warf-Pickel Hall	513	1,005	40	24.3%	47.1	$8,571
Warf-Pickel Hall	411	1,003	44	24.3%	30.0	$4,253
Totals		**11,597**	**583**			**$135,767**

Table 48: Lowest Utilization Rooms

Building	Room Number	Square Feet	Capacity	Percent Deficient	Weekly Room Hours	Estimated Correction Costs
Brown Hall	304	1,180	91	28.3%	19.8	$24,098
Brown Hall	265	1,230	87	33.6%	19.0	$14,556
Brown Hall	477	530	27	29.0%	18.5	$11,068
Mathes Hall	106	200	13	29.0%	13.8	$9,800
Rogers-Stout Hall	321	763	26	39.3%	9.0	$16,431
Memorial Hall	304A	560	21	28.8%	6.5	$2,730
Brown Hall	266	700	40	29.9%	3.0	$16,580
Totals		**5,163**	**305**			**$95,263**

The type of data displayed in the charts above may be used to frame further questions that may need to be considered such as: Why are there so many rooms located in older buildings that are ranked both high use and very deficient vs. rooms that are rated very low utilization rooms that are not as deficient? Should some of the lowest used rooms that are relatively deficient be considered for repurposing to other uses, and why are they used so infrequently? There are 33 rooms that are scheduled less than 20 hours per week. For

those rooms within this group that are not very deficient are there functional or other issues that cause such low use?

Calculated Classroom Needs and Capacity Analysis

A calculation of classroom space needs for the main campus was developed using the THEC classroom guideline criteria and were applied to the formula methodology typically used by CFP. The calculated needs shown below are based on the THEC factors of an 8 AM to 5 PM instructional day and utilization goals of 30 Weekly Room Hours (WRH) and 60% station occupancy. CFP recommends a deviation from the THEC average station size of 17.7 square feet and has applied a factor of 20 square feet, which is more realistic for current instructional conditions. The CFP methodology also includes a recommended 5% contingency factor. The table below presents the calculated space needs for both the current and projected enrollments.

Table 49: Classroom Space Needs Calculations

	WSCH	Utilization Ratio*	Calculated Seats**	Contgy. Factor	Seats with Conting.	Avg Seat Size	Calculated ASF	Current Space	Diff
Current Need	89,476	18	4,971	5%	5,237	20	104,740	129,894	25,154
Projected Need	111,845	18	6,214	5%	6,525	20	130,500	129,894	-606
*Utilization Ratio = Weekly Room Hours x Station Occupancy (30 x 60%)									
** Calculated Seats = Weekly Student Contact Hours / Utilization Ratio									

- The current classroom supply has a sufficient number of seats and square feet to meet the current demand.
- The future calculated classroom needs indicate a small deficit of approximately 600 assignable square feet. However, the required number of seats is actually 174 less than the current inventory, but the larger station size being used results in a net square feet deficit.

Classroom Size Ranges

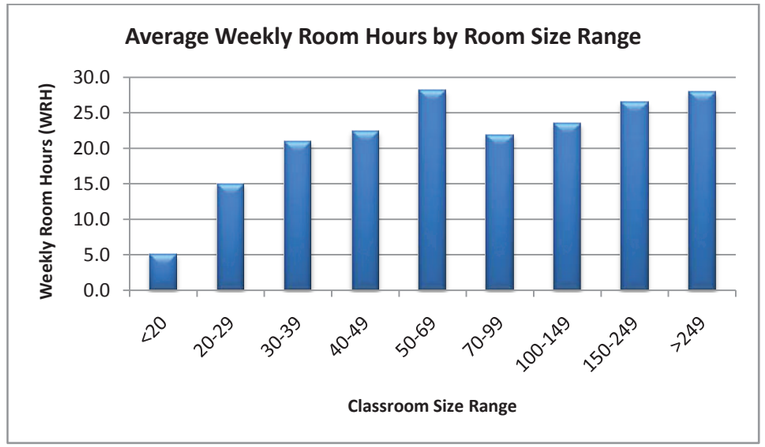
Both the THEC and CFP methodologies also look at classroom needs in terms of seating capacity size ranges. However, the THEC guidelines have a concentration in the smaller size ranges (less than 30 seats). The existing conditions at ETSU indicate these categories are not realistic groupings, and therefore CFP has modified these to better reflect current conditions. The size range and capacity analysis presented in this section therefore varies from the THEC guidelines to provide a more realistic profile.

The mix of the 132 rooms with reported seating capacities included in the current classroom supply (Fall 2008) using the recommended size ranges is presented in Table 50 below.

Table 50: Current Classroom Data by Capacity Size Ranges

Capacity Size Range	No. of Rooms	Weekly Room Hours	Enroll	WSCH	Current Section Count
<20	8	40.5	210	612	18
20-29	14	210.0	1,851	4,340	92
30-39	29	606.6	4,442	12,968	220
40-49	37	830.3	6,995	19,286	310
50-69	24	676.3	6,624	19,535	239
70-99	13	285.4	3,633	10,894	102
100-149	2	47.1	1,145	3,548	16
150-249	4	105.8	4,241	13,212	34
>249	1	28.0	1,624	5,081	9
Totals	**132**	**2,830.0**	**30,765**	**89,476**	**1,040**

The graph below depicts the average weekly room hours of use by size range.

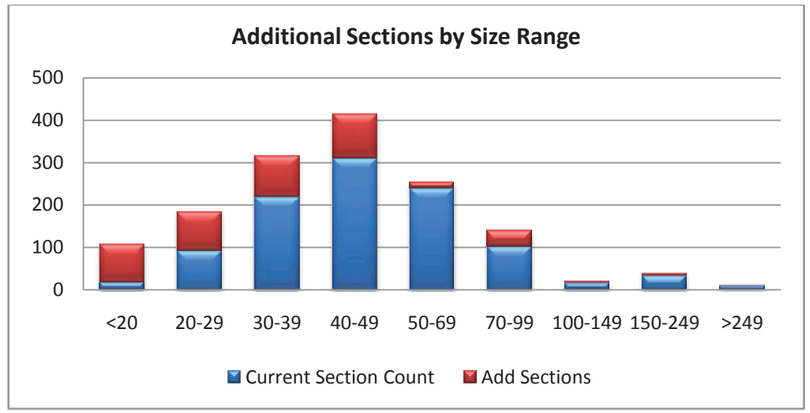


- The 50 to 69 and over 250 seat ranges are the most heavily scheduled groupings that approach the 30 WRH goal.
- The rooms in the small size ranges of less than 30 seat capacity are used less than 15 WRH per week.

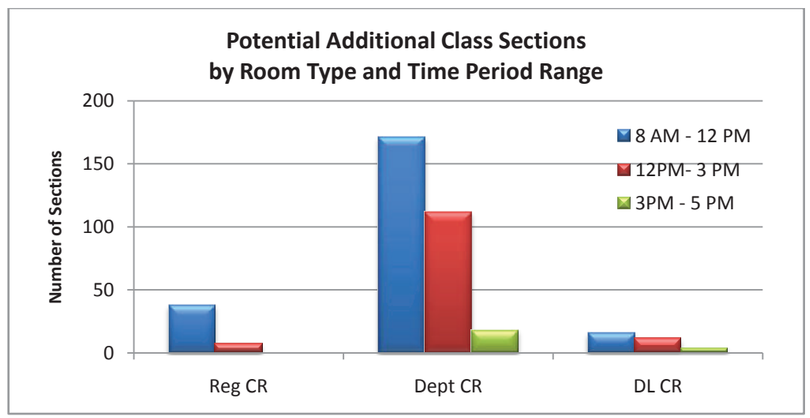
Classroom Capacity

Assuming no adjustments or changes to the above classroom supply mix, the projected enrollment increase of 25% could be accomplished including a reasonable contingency by achieving the THEC Weekly Room Hour goal of 30 and an average station occupancy of 60%. The enrollment growth may be addressed through a combination of the following measures.

By increasing the average WRH to 30 across the size ranges, over 440 class sections could be added that would accommodate about a 24% enrollment increase. The size ranges where class sections might be added are graphically depicted in the chart below.



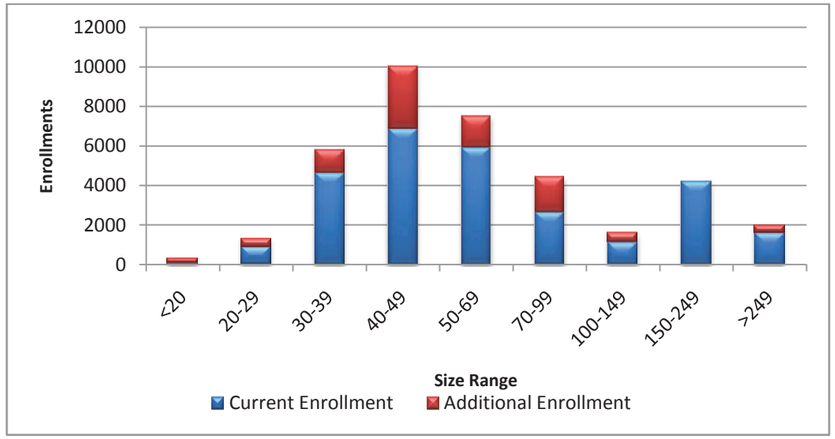
Another illustration of this proposal for adding class sections is to review the potential additional sections by classroom type as shown in the below.



- Capacity to add class sections is greatest within the department scheduled classrooms particularly in the 8 AM to 12 PM time block.

- A number of classrooms could also accommodate larger section sizes. By making the average station occupancy ratio of 60% across all size ranges, the average section size would increase from 29.6 to about 32 students. An additional 19% growth in enrollment could be achieved.

Another illustration of how additional enrollments might be accommodated within the size ranges is shown in the graph below.



The mid-sized rooms (30 to 99 seats) have most of the capacity to accommodate the future enrollment increase.

Summary Findings and Recommendations:

- In order to achieve the classroom utilization goals prescribed by THEC a review of the current scheduling practices for classrooms should be undertaken. Consideration during these deliberations should be for the creation of a more centralized scheduling process including a priority scheduling preference for departments with historical use of certain rooms. The results of this analysis have assumed this management change will occur.
- The existing classroom supply is adequate in terms of the number of seats, square feet and mix of rooms to meet both current and projected classroom needs. The future classroom need can be accommodated through a combination of growth in section sizes and by adding sections. This result may be altered if some of the rooms identified in the condition analysis should be removed from service or if the University undertakes measures to increase the average station size to achieve the modeling criteria of an average of 20 square feet. In this case the seating capacity in some rooms will have to be reduced. Only under these conditions would additional classroom space be needed.

- The day use is assumed to be the more intensive and is driving the classroom need. However, if the day/evening student demand is essentially equal, shifting part of the day demand to the evening is another potential solution to meet the future need.
- An across the board enrollment increase of 25% would result in some sections exceeding the capacity of the room in which they are now scheduled, therefore they would need to be relocated to an appropriately sized room.
- Larger sections may result in a shortage of large lecture halls. If sections sizes are increased across the board the result is a deficit of two lecture halls in the 150+ seat size range. Approximately 6,000 to 8,000 square feet would be required to meet this need.
- If larger rooms are not provided the trade-off would require adding smaller sections.
- While this analysis was modeled using an across-the-board enrollment increase, there may be scheduling problems with larger lecture halls. A more realistic approach may be to review individual sections or courses to make targeted adjustments to address the growth in smaller classrooms.

Instructional Laboratories

The University's space inventory and schedule of classes (class file) databases were used to develop a current profile of the number of instructional labs available (supply) and the instructional demand for labs as of the Fall 2008 semester. A summary of these rooms is presented in the table below (including service rooms).

Table 51: Fall 2008 Instructional Lab Inventory by College

Division/College	Department	Number	Square Feet	Capacity
Provost				
Honors College	Honors College	4	1,065	4
College of Arts and Sciences	Appalachian Studies	3	1,100	24
	Art and Design	55	25,770	365
	Biological Sciences	22	15,980	330
	Chemistry	11	8,825	174
	Communication	2	511	20
	English	1	780	20
	Geosciences	8	3,372	102
	Mathematics	3	1,900	82
	Music	5	1,575	147
	Physics and Astronomy	10	4,725	76
	Psychology	1	978	24
College of Business and Technology	College of Business and Tech	2	1,775	44
	Computer & Info Science	6	4,690	164
	Eng Tech, Surv & Dig Media	26	22,163	343
	Military Science	2	1,775	48
College of Education	College of Education	1	1,330	20
	Curriculum and Instruction	2	1,215	32
	Educ Ldrshp & Policy Analysis	1	725	15
	Human Develop & Learning	2	2,020	60
	Kines, Leisure & Sport Sciences	1	1,500	12
	Totals-Provost	**168**	**103,774**	**2,106**
Health Sciences				
College of Clin.l & Rehab Health Sciences	Allied Health	11	4,565	109
	Communicative Disorders	2	645	12
	Dental Hygiene	1	1,120	24
	Physical Therapy	2	2,020	45
College of Nursing	College of Nursing	8	6,870	74
College of Pharmacy	College of Pharmacy	3	2,440	42
College of Public Health	Community Health	2	2,190	51
	Environmental Health	2	810	20
	Health Sciences	14	6,807	145
James H. Quillen College of Medicine	Medical Academic Affairs	30	15,095	290
	Obstetrics & Gynecology	1	360	0
	Pharmacology	1	120	0
	Totals- Health Sciences	**77**	**43,042**	**812**
	University Totals	**245**	**146,816**	**2,918**

Instructional Lab Conditions

A summary of the number of the deficiencies identified and possible corrective costs by category are presented in the table below. A more detailed listing of these deficiencies are n the Appendix.

Table 52: Summary of Instructional Lab Deficiencies

Deficiency Category	No. of Deficiencies	Estimated Costs to Correct
ADA Requirements	233	$68,400
Building or Structural	160	$22,500
General	4	$0
Maintenance	159	$249,717
Room Improvements	394	$117,380
Technology Improvements	162	$54,850
Totals	**1,112**	**$512,847**

Recommended Migration Plan

An implementation or migration plan was developed as part of this assessment to present a scenario of steps necessary to achieve the space needs identified from this study. The steps outlined in this plan for achieving the future space requirement for the University is based on the following assumptions:

- The projected calculated space needs can be addressed through new construction, facility renovations and the reuse/backfilling of vacated areas created from the relocation of departments. It is assumed funding to implement one or more of these solutions will be available during the planning period.
- Capital projects that are at some stage of planning will be implemented. These include the Ross Hall renovation, Medical Student Center Addition, a new Performing Arts Building, a new Public Safety and Parking Services facility and the Lamb Hall renovation.
- At least one existing, older residence hall will be available for reuse/repurposing to other non-housing uses.
- To the most feasible extent possible, consolidate academic colleges/departments that are currently located in multiple facilities.
- Eliminate the use of the houses located along Maple Street.
- Utilize the Valleybrook Farm property with existing operations that are assumed will be able to function best in a location remote from the main campus.

Key aspects of the recommended migration plan are highlighted below.

- Construct a new Science and Math Building to house the future space needs of the Departments of Biology, Chemistry, Physics and Astronomy and Mathematics. The lab animal facility space currently located in Brown Hall would be replaced and included in this facility.
- The College of Clinical and Rehabilitative Sciences, along with the Department of Computer Science, will be relocated to a renovated Brown Hall facility. The College of Public Health will then expand into the vacated areas of Lamb Hall. The Nave Center will continue as a satellite location for both of these colleges. The College of Nursing and the Department of Appalachian Studies will backfill the vacated Computer Science space in Nicks Hall.
- Construct a new Performing Arts facility to house the future needs of the Department of Music and the Theatre program in the Department of Communications. A new art gallery will also be included.
- The Department of Art and Design will backfill the spaces vacated in Burleson Hall Mathes Hall and part of Memorial Hall to meet their future needs.
- Either the Dossett or West residence halls will be repurposed to accommodate the needs of the departments of English and several of the humanities and social science units currently located in Rogers-Stout Hall. Psychology and Political Science will expand in Rogers - Stout Hall, and Psychology will be consolidated with the exception of the Lucille Clement clinic space. The Little Bucs program will also be located in the repurposed residence hall to provide space for several College of Education departments to grow within Warf-Pickel Hall.
- The Cross Disciplinary Studies and Continuing Studies departments will be relocated to vacated space in the Campus Center and the existing houses will be demolished to make way for future construction.
- Surplus space in the Sherrod Library will house the consolidated future needs of all University tutoring services, the Writing Center and the Math Lab and the Advising Resources and Career Center. The existing open computer labs in the Culp Center will be relocated and expanded to the Sherrod Library.
- A new Public Safety and Parking Services facility will be constructed that will house with the departments of Public Safety and Parking and Transportation along with the Environmental Health and Safety office. The existing facilities that currently house the former two departments will be demolished.
- The Valleybrook Farm facility will be used as the future home of the Innovation Lab; and to meet Geosciences research space needs, Biology field research needs, and for research needs of several departments in the College of Medicine. Space released on the VA Campus will be reorganized to meet the additional research and office space needs of other College of Medicine departments.
- The existing Innovation Lab facility will be repurposed for interim research space for the College of Pharmacy; and relocation space for Procurement and Contracts, Budget and Financial Planning and Financial Services from Burgin Dossett Hall. Areas vacated in Burgin Dossett will be used to meet future needs for Admissions, Registrar, Financial Aid, University Advancement and University Relations.
- A new wing will be constructed to the College of Pharmacy's existing Building 7 to accommodate its future needs.
- Space released in the Culp Center will be repurposed for student center related functions such as meeting rooms, lounges or food services.

Details of the migration plan are presented in the Appendix.

Conclusions and Recommendations

Conclusions:

The Academic Space Master Plan scope included an assessment of all of the departments located on the Johnson City campus along with three Family Practice clinics and the Nave Center facility. The total current space assigned to these departments included in the assessment exceeded 1.65 million assignable square feet.

The assessment developed formula-based space needs calculations for each department. Based on current conditions the University's calculated space need was determined to be almost 1.74 million assignable square feet for an net aggregate deficit of approximately 82,200 assignable square feet (5% more than the current inventory).

A future space need was also developed for a projected ten year timeframe out to the year 2020 based on an overall enrollment growth rate of approximately 25%. To accommodate this growth the future space requirement was determined to be just over 2.01 million assignable square feet for a net aggregate shortfall of about 356,900 assignable square feet (22% more than the current inventory).

In both the current and projected scenarios the College of Arts and Sciences has the largest overall need (deficit) followed by the College of Medicine. All of the academic colleges will have a space shortfall to meet their future needs.

Office space was identified as the space type with the greatest need (deficit). A part of this deficit is the result of using uniform planning modules and comparing with existing facilities which may be larger than the planning criteria; inclusion of student worker and adjunct faculty offices that have not historically been assigned; and uniformly allocating office support space among all departments.

Instructional and research lab space are the next greatest needs (deficits) identified. The combined calculated future deficits in these space categories exceed all other types.

Based on the calculated square footage using the THEC guidelines, the University's existing classroom space is sufficient to meet the current demand. A small future deficit is indicated if the model station size is achieved.

The calculation for the Sherrod Library indicates there is adequate capacity to accommodate both the current and projected needs of the library. A sizable space surplus was identified.

A future deficit of about 12.5% for athletic activity space assigned to Intercollegiate Athletics was identified. Campus recreation space should be sufficient to meet future needs.

With the exception of the support facilities space type, most of the other major space type categories indicate shortfalls which mostly relate to student life spaces. The most significant deficiencies impacting student life are in student lounges and meeting room space.

Recommendations

The University should consider implementing a formal space management process that includes:

- Annual updating of the space inventory database through both self-reporting by departments and field audits. This database should be maintained in sync with the University's Autocad and small scale floor plans.
- Implementing a space allocation procedure to address needs that cannot be met within the management of a particular college.
- Periodically update the space needs calculations as input into future capital planning.

Consideration should also be given for staffing an office responsible for the coordination of these efforts.

Periodic updates of the space needs should include review and modifications to the data and formats used in the process. The current study required significant supplementation and manipulation of some of the data to generate the model. Updating the space needs will require similar efforts unless improved database coordination and formatting is achieved. Improvements to the basic data reporting include:

- Developing a class file that requires the reporting of all scheduled instructional activity in University-owned space.
- Consolidating the reporting from all colleges by course of all student credit hours by term and course designation.
- Creating a comprehensive personnel database that includes not only all full time employees, but also non-university staff, student employees and graduate assistants.

The University should consider investing in a database management software system for maintaining their space inventory and other facilities data.

In order to achieve the classroom utilization goals prescribed by THEC a review of the current processes used in scheduling classrooms should be undertaken. Consideration during these deliberations should be for the creation of a more centralized scheduling process including a priority scheduling preference for departments with historical use of certain rooms. Consideration should also be given for creating a Classroom Advisory Committee that would continually assess the availability, use and quality of the classrooms, and provide recommendations for the management of the classroom resources. This Committee should be charged with assisting in improving and maintaining existing classrooms in satisfactory condition to meet current instructional methodologies, and should also be involved in assisting with the planning and location of classrooms developed either through new construction or renovations.

As new research labs are developed either through new construction or renovation, flexibility should be designed into each lab to permit rapid adaptation of space to new project requirements and to allow for future space reallocations among researchers. The University may consider future designs to include multi-disciplinary layouts to promote more collaboration among departments.

Research grant data should be maintained to be used for periodically assessing faculty productivity and incorporated into a process of space reallocation that may be implemented within individual colleges. Grant timeframes (beginning and ending dates) should be tracked in order to determine annualized productivity statistics. This database would be incorporated into a formalized evaluation process that may include the establishment of a Research Space Advisory Committee , which would continually assess the assignment, availability, use and quality of research laboratory space , and provide recommendations for the realignment and management of the research space resources. This Committee should be charged with assessing departmental research productivity and determine an appropriate methodology of linking space needs/assignments with research production.

Appendix

Enrollment Projection Details

Table 53: Detailed Enrollment Projection Data

College/Department	Current UG SCH	Current Grad SCH	Current Total SCH	Current FTE	Projection Factors UG	Projection Factors Grad	Projected UG SCH	Projected Grad SCH	Projected Total SCH	Projected FTE	Dept Differences SCH	Dept Differences FTE
Arts and Sciences												
Appalachian Studies(1)	626	28	654	44	100.0%	100.0%	1,252	56	1,308	88	**654**	**44**
Art and Design	3,433	188	3,621	245	11.0%	5.0%	3,821	197	4,018	271	**397**	**27**
Biological Sciences	5,274	402	5,676	385	23.0%	105.0%	6,498	822	7,320	502	**1,644**	**117**
Chemistry	4,078	205	4,283	289	32.0%	50.0%	5,371	308	5,678	384	**1,395**	**95**
Communication	6,667	98	6,765	453	62.0%	50.0%	10,827	147	10,974	734	**4,209**	**281**
Crim Justice & Criminology	1,959	155	2,114	144	0.0%	37.0%	1,959	213	2,172	148	**58**	**5**
English	9,300	319	9,619	647	17.0%	9.0%	10,872	347	11,218	754	**1,599**	**107**
Foreign Languages	2,202	39	2,241	150	8.0%	67.0%	2,385	65	2,450	164	**209**	**14**
Geosciences	2,453	105	2,558	172	18.0%	35.0%	2,895	142	3,036	205	**478**	**32**
History	8,190	478	8,668	586	17.0%	10.0%	9,582	526	10,108	683	**1,440**	**97**
Mathematics	8,892	228	9,120	612	7.0%	28.0%	9,532	293	9,825	660	**705**	**48**
Music	2,757	11	2,768	185	2.0%	0.0%	5,514	0	5,514	368	**2,746**	**183**
Philosophy & Humanities	3,489	3	3,492	233	0.0%	44.0%	3,489	4	3,493	233	**1**	**0**
Physics and Astronomy	2,888	3	2,891	193	73.0%	495.0%	5,002	18	5,020	335	**2,129**	**142**
Political Science	1,936	6	1,942	130	12.0%	129.0%	2,168	14	2,182	146	**240**	**16**
Psychology	4,668	319	4,987	338	40.0%	10.0%	6,535	351	6,886	465	**1,899**	**127**
Social Work	1,398	653	2,051	148	3.0%	3.0%	1,440	673	2,113	152	**62**	**4**
Sociology & Anthropology	5,257	183	5,440	366	31.0%	35.0%	6,908	247	7,155	481	**1,715**	**115**
Arts & Sciences Totals	**75,467**	**3,423**	**78,890**	**5,316**			**96,049**	**4,422**	**100,471**	**6,772**		
Total Differences							**20,582**	**999**	**21,581**	**1,455**		
Percentage Differences							**27.3%**	**29.2%**	**27.4%**	**27.4%**		
Business and Technology												
Accountancy	2,580	251	2,831	193	12.0%	10.0%	2,882	276	3,158	215	**327**	**22**
Computer & Info Science	6,926	452	7,378	499	22.0%	29.0%	8,470	581	9,052	613	**1,674**	**114**
Economics & Finance	4,335	75	4,410	295	25.0%	0.0%	5,419	75	5,494	368	**1,084**	**72**
Eng. Tech, Surv. & Dig. Media	4,963	296	5,259	356	0.0%	0.0%	4,963	296	5,259	356	**0**	**0**
Management & Marketing	6,265	899	7,164	493	9.0%	0.0%	6,829	899	7,728	530	**564**	**38**
Military Science	387	0	387	26	0.0%	0.0%	387	0	387	26	**0**	**0**
Business & Technology Totals	**25,456**	**1,973**	**27,429**	**1,861**			**28,950**	**2,127**	**31,077**	**2,107**		
Total Differences							**3,494**	**154**	**3,648**	**246**		
Percentage Differences							**13.7%**	**7.8%**	**13.3%**	**13.2%**		
Clinical & Rehab Health Sci.												
Allied Health	1,750	136	1,886	128	0.0%	572.0%	1,750	914	2,664	193	**778**	**65**
Communicative Disorders	277	944	1,221	97	50.0%	24.0%	416	1,173	1,589	125	**368**	**28**
Dental Hygiene	749	0	749	50	0.0%	0.0%	749	0	749	50	**0**	**0**
Physical Therapy	0	1,302	1,302	109	0.0%	33.0%	0	1,736	1,736	145	**434**	**36**
Clinical & Rehab Totals	**2,776**	**2,382**	**5,158**	**384**			**2,915**	**3,823**	**6,737**	**513**		
Total Differences							**139**	**1,441**	**1,579**	**129**		
Percentage Differences							**5.0%**	**60.5%**	**30.6%**	**33.7%**		
Education												
Curriculum & Instruction	3,067	724	3,791	265	20.0%	20.0%	3,680	869	4,549	318	**758**	**53**
Educ. Lead. & Policy Analysis	0	699	699	58	0.0%	20.0%	0	839	839	70	**140**	**12**
Human Develop & Learning	3,875	1,406	5,281	376	50.0%	30.0%	5,813	1,828	7,640	540	**2,359**	**164**
Kines, Leisure & Sport Sci.	3,579	533	4,112	283	80.0%	50.0%	6,442	800	7,242	496	**3,130**	**213**
Education Totals	**10,521**	**3,362**	**13,883**	**982**			**15,935**	**4,335**	**20,270**	**1,424**		
Total Differences							**5,414**	**973**	**6,387**	**442**		
Percentage Differences							**51.5%**	**28.9%**	**46.0%**	**45.0%**		
Nursing	**7,040**	**909**	**7,949**	**545**	**5.0%**	**30.0%**	**7,392**	**1,182**	**8,574**	**591**		
Total Differences							**352**	**273**	**625**	**46**		
Percentage Differences							**5.0%**	**30.0%**	**7.9%**	**8.5%**		
Public Health(2)												
Environmental Health	330	58	388	27	14.0%	55.0%	375	90	464	32	**76**	**6**
Health Sciences	3,743	34	3,777	252	14.0%	0.0%	4,267	34	4,301	287	**524**	**35**
Former Public Health Depts.	2,103	1,005	3,108	224	0.0%	105.0%	2,103	2,060	4,163	312	**1,055**	**88**
Public Health Totals	**6,176**	**1,097**	**7,273**	**503**			**6,745**	**2,184**	**8,929**	**632**		
Total Differences							**569**	**1,087**	**1,656**	**129**		

	Current UG SCH	Current Grad SCH	Current Total SCH	Current FTE	Projection Factors UG	Projection Factors Grad	Projected UG SCH	Projected Grad SCH	Projected Total SCH	Projected FTE	Dept Differences
Percentage Differences							**9.2%**	**99.1%**	**22.8%**	**25.5%**	
Medicine(1)				**240**						**288**	
Total Differences										**48**	
Percentage Differences										**20.0%**	
Pharmacy(3)				**240**						**240**	
Continuing Studies											
Cross Disciplinary Studies	**1,674**	**121**	**1,795**	**122**	**18.0%**	**35.0%**	**1,975**	**163**	**2,139**	**145**	
Total Differences							**301**	**42**	**344**	**24**	
Percentage Differences							**18.0%**	**35.0%**	**19.1%**	**19.4%**	
University Totals	**129,110**	**13,267**	**142,377**	**10,193**			**159,961**	**18,236**	**178,197**	**12,712**	
Total Differences							**30,851**	**4,969**	**35,820**	**2,519**	
Percentage Differences							**23.9%**	**37.5%**	**25.2%**	**24.7%**	

(1) No enrollment trend data available to develop a projection factor. Enrollment growth based on information received from the college.
(2) Recent reorganization separated this group into three separate departments. No trend data available for the new departments/programs.
(3) Class size for Pharmacy set at 80. Only the first three years of the program are indicated here as the fourth year students are off campus.

Peer Data Comparisons

The following institutions were identified by the core committee as East Tennessee State University peers to be used in the analysis. The peer institutions were sorted into three major groupings: University-Wide peers, College of Medicine peers, and College of Pharmacy peers.

University Peers

East Carolina University, Greenville
The University of South Alabama
University of North Carolina, Greensboro
Old Dominion University, Norfolk
University of Alabama, Huntsville

College of Medicine Peers

East Carolina University, Greenville
Marshall University, Huntington
University of South Alabama, Mobile
Wright State University, Dayton
University of South Carolina, Columbia
North East Ohio College of Medicine

College of Pharmacy Peers

University of Tennessee, Memphis
Mercer University, Atlanta
David Lipscomb University
Campbell University, Buies Creek
Belmont University, Nashville
North East Ohio College of Medicine

Each institution was contacted by phone and by email in February and March of 2009 to request the following data:

Peer Data Comparison Information

- Name of Institution, Location, and Classification Type
- Web Site
- Year Established
- Accrediting Agency
- Major Programs/Degrees Offered
- Academic Colleges
- Total Student Undergraduate and Graduate FTE Enrollment
- Percentage of Students who live on campus.

- Total Faculty FTE
- Calendar System
- Assignable Square Feet by Major Room Type Category (100, 200, 300, 400, 500, 600, 700, 800, 900)
- Research Dollars by College or Discipline
- Current Capital Projects
- Classroom quality (e.g., excellent, good, fair, poor) and number of rooms equipped with technology

Completed Peer Data Forms

East Carolina University, Greenville
University of North Carolina – Greensboro
University of South Alabama
University of South Carolina
Campbell University, Buies Creek
North East Ohio College of Medicine
The Ohio State University *

Additional Institutions Included in the Comparison

Ohio University
Oakland University
Bowling Green State University
Indiana State University
Northern Kentucky University
Wright State University
Youngstown State University

University School Detailed Space Needs Calculations

Table 54: University School Space Needs Calculations

	Current Need			Projected Need			
Room Type	**No. of Rooms**	**ASF per Room**	**Total ASF**	**No. of Rooms**	**ASF per Room**	**Total ASF**	**Comments**
Classrooms							
Elementary							
K	1	1,200	1,200	2	1,200	2,400	Enrollments are
1	1	950	950	2	950	1,900	expected to
2	1	950	950	2	950	1,900	double for grades
3	1	950	950	2	950	1,900	K thru 6
4	1	950	950	2	950	1,900	
5	1	950	950	2	950	1,900	
6	1	950	950	2	950	1,900	
Science CR	1	1,200	1,200	1	1,200	1,200	
Middle School							
Core CRs	3	950	2,850	4	950	3,800	For projected need
Science CR	1	1,200	1,200	1	1,200	1,200	another class
Tech CR	1	720	720	1	720	720	will be added
High School							
Core CRs	10	800	8,000	11	800	8,800	CR service rooms are
Science CR	1	1,000	1,000	1	1,000	1,000	included in ASF per rm.
CR Need Totals			**21,870**			**30,520**	
Current CR ASF			**13,070**				
Laboratories							
Art (K-8)	1	1,200	1,200	1	1,200	1,200	
Art (HS)	1	1,300	1,300	1	1,300	1,300	
Art Storage	2	200	400	2	200	400	
Music - choral	1	1,000	1,000	1	1,000	1,000	Music labs could be
Music - Instru	1	1,500	1,500	1	1,500	1,500	shared by all classes
Music Practice Rms	2	80	160	2	80	160	
Music Storage	1	400	400	1	400	400	
Biology	1	1,200	1,200	1	1,200	1,200	Science labs are HS
Chemistry	1	1,400	1,400	1	1,400	1,400	
Physical Science			0	1	1,200	1,200	
Computer	1	900	900	1	900	900	
Tech	1	900	900	1	900	900	
Prep / Storage	1	250	250	2	250	500	
Lab Need Totals			**10,610**			**12,060**	
Current Lab ASF			**4,555**				
Offices							

	Current Need			Projected Need			
Principal	1	250	250	1	250	250	
Asst Principal	1	200	200	1	200	200	
Reception	1	400	400	1	400	400	
Teachers	3	180	540	3	180	540	Floating / Itinerant
Guidance	1	300	300	1	300	300	
Counselors	3	150	450	3	150	450	
Staff	7	150	1,050	8	150	1,200	(a)
Conference Rms	2	280	560	2	280	560	
Teacher's Lounge	1	400	400	1	400	400	
Workroom	1	300	300	1	300	300	
Office Service			668			690	Incls storage & toilet
Office Need Totals			**5,118**			**5,290**	
Current Office ASF			**4,445**				
Media Ctr / Study							
Main Room RLV	1	2,000	2,000	1	2,500	2,500	
Support	1	1,250	1,250	1	1,500	1,500	
Media Need Totals			**3,250**			**4,000**	
Current Media ASF			**2,965**				
Physical Education							
Gym	1	10,000	10,000	1	10,000	10,000	Incls retractable seating
Multi-purpose	1	1,600	1,600	1	1,600	1,600	
Lockers	2	1,200	2,400	2	1,200	2,400	
Support	1	1,000	1,000	1	1,250	1,250	Laundry, storage, etc.
PE Need Totals			**15,000**			**15,250**	
Current PE ASF			**4,370**				
Food Service							
Dining	1	2,625	2,625	1	3,750	3,750	Assumes 3 seatings
Kitchen	1	1,600	1,600	1	1,600	1,600	Incls storage & service
Staff Lunch Room	1	300	300	1	400	400	
PE Need Totals			**4,525**			**5,750**	
Current PE ASF			**2,234**				
Auditorium							
Seating	1	4,250	4,250	1	4,250	4,250	Add 1,000 ASF stage
Stage	1	2,500	2,500	1	2,500	2,500	to one end of gym if
Support	1	500	500	1	500	500	auditorium Is not required
Aud Need Totals			**7,250**			**7,250**	

		Current Need			Projected Need	
Current Aud ASF			**0**			
Medical						
Exam area	1	150	150	1	150	150
Storage	1	100	100	1	100	100
Toilet	1	50	50	1	50	50
Med Need Totals			**300**			**300**
Current Med ASF			**0**			
Custodial / Maintenance						
Workshop	1	200	200	1	200	200
Receiving/ Supply	1	250	250	1	250	250
Storage	1	400	400	1	400	400
CM Need Totals			**850**			**850**
Current CM ASF			**0**			
Total Need ASF			**68,773**			**81,270**
Current ASF			**31,639**			
(a) Includes offices for Nurse, custodian, etc.						
The space needs were based on the review and analysis of the guidelines and standards in use by Georgia, Massachusetts, Missouri, and North Carolina						

Classroom Inventory and Fall 2008 Utilization by Room

Table 55: Classroom Inventory and Daytime Utilization by Room - Fall 2008*

**Note: Excludes the five additional future classrooms*

	Building	Room No.	Square Feet	Cap	WRH	Station Occup	Under-utilized Hours	Room Type
A4001	BUILDING 1 MED SCHOOL	00B260	600	10	0.00	0.0%	0.00	Department Scheduled Classroom
A4178	BUILDING 178 STANTON GERBER	0B0030	1,773	90	24.51	67.8%	0.00	Department Scheduled Classroom
A4178	BUILDING 178 STANTON GERBER	0C0230	3,825	155	29.18	38.7%	18.34	Department Scheduled Classroom
A4002	BUILDING 2 DOMICIARY	002030	890	0	9.00	96.7%	0.00	Department Scheduled Classroom
A4006	BUILDING 6 MED SCHOOL	002120	545	16	0.00	0.0%	0.00	Department Scheduled Classroom
A4007	BUILDING 7 PHARMACY SCHOOL	002110	720	30	0.00	0.0%	0.00	Department Scheduled Classroom
A4007	BUILDING 7 PHARMACY SCHOOL	001070	1,685	84	0.00	0.0%	0.00	Department Scheduled Classroom
A4007	BUILDING 7 PHARMACY SCHOOL	001030	1,690	84	0.00	0.0%	0.00	Department Scheduled Classroom
A4007	BUILDING 7 PHARMACY SCHOOL	002150	710	36	0.00	0.0%	0.00	Department Scheduled Classroom
A0014	BURLESON HALL	002020	865	35	32.08	76.4%	0.00	Registrar Scheduled Classroom
A0014	BURLESON HALL	004040	780	35	31.25	53.0%	6.00	Registrar Scheduled Classroom
A0014	BURLESON HALL	003040	780	35	32.83	71.1%	4.83	Registrar Scheduled Classroom
A0014	BURLESON HALL	004030	810	35	32.75	66.6%	3.00	Registrar Scheduled Classroom
A0014	BURLESON HALL	004020	800	35	37.50	64.2%	6.25	Registrar Scheduled Classroom
A0014	BURLESON HALL	004010	915	35	24.50	52.3%	9.25	Registrar Scheduled Classroom
A0014	BURLESON HALL	002010	915	35	33.25	73.0%	1.00	Registrar Scheduled Classroom
A0014	BURLESON HALL	002030	810	35	34.25	62.0%	9.00	Registrar Scheduled Classroom
A0014	BURLESON HALL	003010	915	35	31.00	60.6%	9.00	Registrar Scheduled Classroom
A0014	BURLESON HALL	003020	800	35	34.75	64.9%	3.50	Registrar Scheduled Classroom
A0014	BURLESON HALL	003030	810	35	38.50	54.3%	13.25	Registrar Scheduled Classroom
A0332	CHILD STUDY CENTER	003100	598	30	0.00	0.0%	0.00	Department Scheduled Classroom
A0003	D M BROWN HALL	002650	1,230	88	19.00	27.4%	15.75	Registrar Scheduled Classroom
A0003	D M BROWN HALL	001120	4,210	332	28.00	51.8%	12.50	Registrar Scheduled Classroom
A0003	D M BROWN HALL	004770	530	32	18.00	68.7%	6.25	Registrar Scheduled Classroom
A0003	D M BROWN HALL	004760	735	56	24.16	41.0%	8.41	Registrar Scheduled Classroom
A0003	D M BROWN HALL	003700	1,313	80	35.00	47.0%	3.25	Registrar Scheduled Classroom
A0003	D M BROWN HALL	003640	1,285	124	20.92	63.5%	2.17	Registrar Scheduled Classroom
A0003	D M BROWN HALL	002660	700	40	3.00	65.0%	0.00	Department Scheduled Classroom
A0003	D M BROWN HALL	002610	1,285	142	26.17	51.2%	7.42	Registrar Scheduled Classroom
A0003	D M BROWN HALL	002060	2,105	155	26.50	61.1%	6.25	Registrar Scheduled Classroom
A0003	D M BROWN HALL	001330	714	24	0.00	0.0%	0.00	Distance Learning Classroom
A0003	D M BROWN HALL	001320	714	24	14.00	53.6%	6.00	Distance Learning Classroom
A0003	D M BROWN HALL	003040	1,180	93	19.83	67.3%	4.33	Registrar Scheduled Classroom
A0904	DIGITAL MEDIA CENTER	001950	1,350	18	0.00	0.0%	0.00	Department Scheduled Classroom
A0904	DIGITAL MEDIA CENTER	002850	930	17	0.00	0.0%	0.00	Department Scheduled Classroom
A0904	DIGITAL MEDIA CENTER	002950	1,025	17	0.00	0.0%	0.00	Department Scheduled Classroom
A0006	ERNEST C BALL HALL	001270	1,850	150	20.08	50.0%	3.00	Registrar Scheduled Classroom
A0010	GILBREATH HALL	003040	680	44	15.75	98.7%	0.00	Registrar Scheduled Classroom
A0010	GILBREATH HALL	003060	685	24	11.75	181.6%	0.00	Department Scheduled Classroom
A0010	GILBREATH HALL	002120	830	40	35.00	45.4%	13.00	Registrar Scheduled Classroom
A0010	GILBREATH HALL	001060	1,400	21	2.50	2.7%	2.50	Department Scheduled Classroom
A0010	GILBREATH HALL	003140	675	44	22.83	65.4%	1.00	Registrar Scheduled Classroom
A0010	GILBREATH HALL	003130	530	32	28.33	47.2%	12.58	Registrar Scheduled Classroom
A0018	HUTCHESON HALL	002100	560	26	26.00	84.4%	1.00	Department Scheduled Classroom
A0018	HUTCHESON HALL	001120	640	44	11.50	38.9%	6.25	Department Scheduled Classroom

	Building	Room No.	Square Feet	Cap	WRH	Station Occup	Under-utilized Hours	Room Type
A0019	JOHN P. LAMB HALL	001310	560	40	5.00	56.0%	1.00	Department Scheduled Classroom
A0019	JOHN P. LAMB HALL	003310	555	40	14.50	62.6%	2.50	Registrar Scheduled Classroom
A0019	JOHN P. LAMB HALL	002600	785	0	12.00	91.4%	0.00	Department Scheduled Classroom
A0019	JOHN P. LAMB HALL	002550	310	12	6.17	58.1%	0.00	Department Scheduled Classroom
A0019	JOHN P. LAMB HALL	002430	535	48	27.42	43.3%	18.42	Registrar Scheduled Classroom
A0019	JOHN P. LAMB HALL	002310	555	40	15.25	56.5%	6.00	Department Scheduled Classroom
A0019	JOHN P. LAMB HALL	001430	560	40	8.00	53.4%	0.00	Department Scheduled Classroom
A0019	JOHN P. LAMB HALL	001380	810	24	27.00	90.7%	3.25	Distance Learning Classroom
A0019	JOHN P. LAMB HALL	001320	875	56	12.00	52.6%	5.00	Department Scheduled Classroom
A0019	JOHN P. LAMB HALL	001050	1,065	70	6.25	53.7%	3.00	Department Scheduled Classroom
A0019	JOHN P. LAMB HALL	000830	635	35	18.58	70.8%	0.00	Department Scheduled Classroom
A0019	JOHN P. LAMB HALL	003430	535	48	20.58	27.9%	13.58	Registrar Scheduled Classroom
A0019	JOHN P. LAMB HALL	001340	875	40	8.00	29.2%	8.00	Department Scheduled Classroom
A0019	JOHN P. LAMB HALL	001160	885	35	0.00	0.0%	0.00	Department Scheduled Classroom
A0019	JOHN P. LAMB HALL	000540	635	30	22.83	41.1%	13.58	Registrar Scheduled Classroom
A0005	MATHES HALL	001060	200	0	9.49	71.5%	1.08	Department Scheduled Classroom
A0005	MATHES HALL	001050	215	25	24.41	60.1%	9.49	Registrar Scheduled Classroom
A0005	MATHES HALL	00018B	340	36	15.49	51.5%	5.16	Department Scheduled Classroom
A0007	MEMORIAL CENTER	E02270	955	44	23.92	73.8%	1.00	Department Scheduled Classroom
A0007	MEMORIAL CENTER	E02220	970	44	26.25	49.3%	4.00	Department Scheduled Classroom
A0007	MEMORIAL CENTER	E01620	940	40	16.01	53.7%	5.42	Registrar Scheduled Classroom
A0007	MEMORIAL CENTER	E01340	940	41	23.09	48.0%	7.25	Registrar Scheduled Classroom
A0009	MEMORIAL HALL	00304A	560	21	6.49	50.4%	1.08	Department Scheduled Classroom
A0701	NAVE PARAMEDICAL	1610	975	0	26.33	57.4%	10.66	Department Scheduled Classroom
A0701	NAVE PARAMEDICAL	1070	630	14	0.00	0.0%	0.00	Department Scheduled Classroom
A0701	NAVE PARAMEDICAL	1020	1,005	30	0.00	0.0%	0.00	Department Scheduled Classroom
A0021	ROGERS-STOUT HALL	003240	1,072	59	17.00	26.9%	11.00	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	003030	973	65	23.50	46.8%	11.00	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	003200	973	30	6.50	79.6%	0.00	Department Scheduled Classroom
A0021	ROGERS-STOUT HALL	004280	1,104	70	33.00	61.9%	9.75	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	004270	808	53	35.25	52.2%	10.50	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	004250	841	55	30.08	57.4%	12.25	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	004030	973	62	35.25	53.8%	9.25	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	004020	763	41	34.25	65.0%	3.25	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	004010	800	41	33.92	56.4%	2.67	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	003210	763	29	9.00	91.0%	0.00	Department Scheduled Classroom
A0021	ROGERS-STOUT HALL	003270	840	57	32.42	60.9%	7.00	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	003250	841	55	34.00	53.1%	4.00	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	003280	1,104	72	31.00	50.2%	18.25	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	002250	841	45	26.75	35.7%	17.25	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	004210	763	47	25.25	42.9%	12.50	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	001020	1,711	178	34.25	81.0%	6.00	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	002290	1,104	49	20.50	49.0%	8.25	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	001010	936	33	20.17	57.1%	6.92	Department Scheduled Classroom
A0021	ROGERS-STOUT HALL	003020	504	31	21.50	72.5%	3.00	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	001180	1,711	178	25.00	86.8%	0.00	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	001200	1,072	67	28.00	52.9%	6.00	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	001210	841	46	31.00	45.2%	12.25	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	001240	849	52	19.83	52.0%	7.33	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	001250	1,095	55	31.75	32.0%	22.50	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	002220	979	49	28.67	46.9%	7.00	Registrar Scheduled Classroom

	Building	Room No.	Square Feet	Cap	WRH	Station Occup	Under-utilized Hours	Room Type
A0021	ROGERS-STOUT HALL	002240	1,072	72	33.00	33.2%	19.25	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	002270	840	52	24.67	51.4%	3.25	Registrar Scheduled Classroom
A0021	ROGERS-STOUT HALL	001220	327	18	6.83	77.2%	0.00	Department Scheduled Classroom
A0020	ROY S. NICKS HALL	33480	1,080	30	23.32	65.6%	4.33	Department Scheduled Classroom
A0020	ROY S. NICKS HALL	11200	1,700	70	16.17	49.4%	5.84	Department Scheduled Classroom
A0020	ROY S. NICKS HALL	11300	1,380	56	27.52	37.2%	17.18	Department Scheduled Classroom
A0020	ROY S. NICKS HALL	22200	1,595	70	17.25	60.7%	3.25	Department Scheduled Classroom
A0020	ROY S. NICKS HALL	22250	1,580	48	11.08	43.6%	5.08	Department Scheduled Classroom
A0020	ROY S. NICKS HALL	33200	905	44	21.65	52.6%	0.00	Department Scheduled Classroom
A0020	ROY S. NICKS HALL	33310	690	27	13.17	72.2%	0.00	Department Scheduled Classroom
A0020	ROY S. NICKS HALL	11100	1,360	94	27.18	54.1%	8.42	Department Scheduled Classroom
A0020	ROY S. NICKS HALL	33470	910	30	23.32	79.1%	0.00	Department Scheduled Classroom
A0020	ROY S. NICKS HALL	44360	725	30	20.32	53.9%	4.33	Department Scheduled Classroom
A0020	ROY S. NICKS HALL	33320	700	27	16.43	75.5%	5.34	Department Scheduled Classroom
A0012	SAM WILSON HALL	002160	715	50	36.50	69.6%	4.50	Registrar Scheduled Classroom
A0012	SAM WILSON HALL	002280	1,150	64	38.75	57.7%	2.00	Registrar Scheduled Classroom
A0012	SAM WILSON HALL	003450	750	42	24.17	63.1%	4.17	Department Scheduled Classroom
A0012	SAM WILSON HALL	003430	650	40	23.75	54.9%	6.00	Registrar Scheduled Classroom
A0012	SAM WILSON HALL	003410	685	48	30.25	58.7%	6.25	Registrar Scheduled Classroom
A0012	SAM WILSON HALL	003340	1,230	60	25.25	66.0%	1.00	Department Scheduled Classroom
A0012	SAM WILSON HALL	003290	630	32	29.83	59.5%	10.00	Registrar Scheduled Classroom
A0012	SAM WILSON HALL	003220	720	30	26.17	32.0%	17.17	Registrar Scheduled Classroom
A0012	SAM WILSON HALL	003150	995	32	22.00	73.9%	0.00	Department Scheduled Classroom
A0012	SAM WILSON HALL	001300	570	30	14.00	71.0%	1.00	Department Scheduled Classroom
A0012	SAM WILSON HALL	002300	1,005	56	30.25	70.5%	0.00	Registrar Scheduled Classroom
A0012	SAM WILSON HALL	002090	965	56	30.75	62.9%	5.00	Registrar Scheduled Classroom
A0012	SAM WILSON HALL	001240	925	40	12.00	85.0%	0.00	Department Scheduled Classroom
A0012	SAM WILSON HALL	003020	1,135	80	28.25	54.4%	4.00	Registrar Scheduled Classroom
A0012	SAM WILSON HALL	001230	894	22	33.33	101.2%	0.00	Distance Learning Classroom
A0008	WARF-PICKEL HALL	004210	1,015	67	24.00	35.6%	11.00	Registrar Scheduled Classroom
A0008	WARF-PICKEL HALL	005130	1,005	67	36.16	46.0%	6.83	Registrar Scheduled Classroom
A0008	WARF-PICKEL HALL	005030	725	20	2.00	67.5%	0.00	Department Scheduled Classroom
A0008	WARF-PICKEL HALL	004130	1,010	67	28.08	45.6%	10.41	Registrar Scheduled Classroom
A0008	WARF-PICKEL HALL	004110	1,003	44	24.50	57.2%	5.00	Department Scheduled Classroom
A0008	WARF-PICKEL HALL	004050	720	56	20.33	35.8%	13.08	Department Scheduled Classroom
A0008	WARF-PICKEL HALL	004030	720	28	8.42	79.2%	1.00	Department Scheduled Classroom
A0008	WARF-PICKEL HALL	003150	1,825	134	31.08	44.6%	12.33	Registrar Scheduled Classroom
A0008	WARF-PICKEL HALL	005170	955	16	18.00	134.0%	0.00	Distance Learning Classroom
A0008	WARF-PICKEL HALL	003110	1,010	67	28.00	38.6%	12.00	Registrar Scheduled Classroom
A0008	WARF-PICKEL HALL	00209E	1,330	63	9.00	48.3%	3.00	Registrar Scheduled Classroom
A0008	WARF-PICKEL HALL	005110	1,010	40	35.00	63.9%	3.00	Registrar Scheduled Classroom
A0017	WILSON-WALLIS HALL	001020	1,025	50	20.75	47.3%	11.75	Department Scheduled Classroom
A0017	WILSON-WALLIS HALL	00112A	870	44	20.42	43.0%	8.50	Registrar Scheduled Classroom
A0017	WILSON-WALLIS HALL	001200	1,235	38	19.75	58.6%	6.00	Department Scheduled Classroom
A0017	WILSON-WALLIS HALL	002040	1,200	54	23.83	45.7%	5.83	Department Scheduled Classroom
A0129	YOAKLEY HALL	001090	1,120	30	6.00	66.7%	0.00	Department Scheduled Classroom
A0129	YOAKLEY HALL	002040	370	0	0.00	0.0%	0.00	Department Scheduled Classroom

Classroom Deficiencies by Type

Table 56: Classroom Deficiency Frequency Summary

Deficiency Category	Deficiency Description	Number
ADA Requirement	Access: Doors do not have manual interior lock	128
	Access: No ADA room numbers	117
	Access: Doors do not have ADA hardware	81
	Access: Door opening not ADA width	2
	Access: Room is not hndcp accessible	2
Building or Structure Issue	Windows: No window security egress locks	106
	Enviro: Room has window air conditioning only	3
	Acoustic: Significant or Continuous Noise	8
	Acoustic: Poor acoustics	5
	Acoustic: Fair acoustics	30
	Sight Lines: Ceiling too low (for proper screen height)	84
	Sight Lines: Room depth > 36 ft and flat floor	30
	Sight Lines: Fair sight lines	4
	Sight Lines: Aspect Ratio < 0.7 or > 1.5	40
	Access: Door not is not made of metal or solid wood	16
	Access: Room not accessible from side or rear	12
	Access: No secondary escape route	30
	Access: Room is on 3rd floor or higher and there is no elevator	3
General	Overall the room is poor	4
	Overall the room is fair	28
Maintenance	Surface Conditions: Floor Cond is poor	6
	Surface Conditions: Floor Cond is fair	61
	Surface Conditions: Wall Cond is poor	7
	Surface Conditions: Wall Cond is fair	53
	Surface Conditions: Ceiling Cond is poor	7
	Surface Conditions: Ceiling Cond is fair	39
Room Improvements	Seat Condition Poor: Movable Tables and Chairs	2
	Seat Condition Poor: Movable Tab Arm Chairs	2
	Seat Condition Poor: Fixed Tab Arm Chairs	4
	Seat Condition Fair	23
	Seating: Rm has fixed seats and there are no wheelchair spaces	10
	Seating: Rm has fixed seats and the seat front to seat back is too narrow	12
	Seating: Rm has fixed seats and some aisle widths are too narrow	2
	Seating: Room has theatre seats W tab arm and < 10% left hand seats and tablet arm area < 300 sq in	2
	Seating: Room has fixed tab arm seats and < 10% left hand seats and tablet arm area < 300 sq in	2
	Seating: Room has movable tablet arm seats and < 10% left hand seats and tablet arm area < 300 sq in	19
	Seating: Room has theatre seats W tab arm and the writing area <= 180 sq in	2
	Seating: Room has fixed tab arm seats and the writing area <= 180 sq in	4
	Seating: Room has movable tablet arm seats and the writing area <= 180 sq in	9
	Teaching Station Not ADA Compliant	5
	Teaching Surfaces: No instructor's station	16
	Teaching Surfaces: Projection screen damaged	1
	Teaching Surfaces: Projection screen covers board	12
	Screens: Room has no projection screens	22
	Teaching Surfaces: No Tackboard	107
	Teaching Surfaces: Chalkboard has poor contrast	2
	Teaching Surfaces:Chalkboard is in poor condition	4
	Teaching Surfaces:Chalkboard is in fair condition	15
	Teaching Surfaces:Room has no chartrail	117
	Teaching Surfaces: Chalkboards have no chalktrays	15
	Teaching Surfaces: Chalkboard Distance From Floor <36 or >42 Inches	17
	Teaching Surfaces: Insufficient chalkboard length (16' for rooms < 800 ASF; 20 ' for larger rooms)	82
	Lighting: Room has windows but no blinds or curtains	2
	Lighting: Poor lighting	1
	Lighting: There is no light switch near the teaching station	23
	Lighting: There is no light switch at room entrance	15
	Lighting: Lights cannot be banked, split or dimmed	8
	Sight Lines: Max seat distance > 6 X projected image	46
Technology Improvements	AV: Classroom or Lecture room with no Video Projection	14
	AV: Room >=50 seats with no sound system	8
	AV: Room >=50 seats with no voice amplification system	46
	AV: Room has no overhead projector	79
	AV: Room has no computer connection	4
	University Totals	**1,660**

Instructional Lab Deficiencies by Type

Table 57: Instructional Lab Deficiencies Frequency

Deficiency Category	Deficiency Description	Number
ADA Requirement	Access: Doors do not have manual interior lock	86
	Access: No ADA room numbers	79
	Access: Doors do not have ADA hardware	66
	Access: Door opening not ADA width	1
	Access: Room is not hndcp accessible	1
Building or Structure Issue	Windows: No window security egress locks	73
	Acoustic: Fair acoustics	54
	Access: No secondary escape route	11
	Enviro: Room has window air conditioning only	7
	Access: Door not is not made of metal or solid wood	6
	Sight Lines: Ceiling too low (for proper screen height)	3
	Sight Lines: Poor sight lines	1
	Acoustic: Poor acoustics	1
	Sight Lines: Fair sight lines	1
	Sight Lines: Aspect Ratio < 0.7 or > 1.5	1
	Access: Room not accessible from side or rear	1
	Sight Lines: Room depth > 36 ft and flat floor	1
General	Overall the room is fair	3
	Overall the room is poor	1
Maintenance	Surface Conditions: Floor Cond is fair	60
	Surface Conditions: Wall Cond is fair	51
	Surface Conditions: Ceiling Cond is fair	41
	Surface Conditions: Wall Cond is poor	3
	Surface Conditions: Ceiling Cond is poor	3
	Surface Conditions: Floor Cond is poor	1
Room Improvements	Teaching Surfaces:Room has no chartrail	87
	Teaching Surfaces: No Tackboard	78
	Teaching Surfaces: Chalkboard Distance From Floor <36 or >42 Inches	55
	Teaching Surfaces: No instructor's station	54
	Teaching Surfaces:Chalkboard is in fair condition	31
	Teaching Surfaces: Chalkboards have no chalktrays	25
	Screens: Room has no projection screens	24
	Lighting: Lights cannot be banked, split or dimmed	13
	Teaching Station Not ADA Compliant	8
	Teaching Surfaces: Chalkboard has poor contrast	7
	Teaching Surfaces: Insufficient chalkboard length (16' for rooms < 800 ASF; 20 ' for larger rooms)	3
	Sight Lines: Max seat distance > 6 X projected image	2
	Seat Condition Fair	2
	Lighting: There is no light switch near the teaching station	1
	Teaching Surfaces: Projection screen covers board	1
	Teaching Surfaces:Chalkboard is in poor condition	1
	Lighting: Poor lighting	1
	Seat Conditon Poor: Movable Tables and Chairs	1
Technology Improvements	AV: Room has no computer connection	79
	AV: Room has no overhead projector	77
	AV: Classroom or Lecture room with no Video Projection	2
	AV: Room >=50 seats with no voice amplification system	2
	AV: Room >=50 seats with no sound system	2
	Totals	**1,112**

Migration Plan Details

The following tables present details of the recommended steps for addressing the University's future space needs developed through this assessment. These steps are presented in phases that are intended to relate possible space assignments upon the completion of an initiating project. For example, in Phase I the initiating project of constructing a new science facility will release or vacate space in existing facilities after the current occupants move into the new building. These vacated facilities will then have other departments identified to move into this "back fill" space that will address their future space needs. The six phases identified below therefore are not intended to suggest any related time sequencing but instead to identify possible realignments/reassignments of space after an initiating project is completed.

Table 58: Phase 1 Migration Plan: Initiated by Construction of New Science Building

A. Construct New Science & Math Building	Calculated Needs
Proposed Bldg. Occupants:	
Biology	45,900
Chemistry	44,200
Physics & Astronomy	19,100
Mathematics	11,400
Lab Animal Facility	5,000
Assignable Square Feet	125,600
Estimated Gross Sq. Feet	209,000
Notes:	
1. New Science Building replaces and provides projected calculated need for all science department now in Brown Hall	

B. Related Backfill Facilities	Released Space - ASF	Occupant(s) Being Relocated	Proposed Backfill Occupants: Clinical & Rehab	OIT	Engin. Tech	Comp Science	Foreign Lang	Dean A&S
Brown Hall	74,836	Bio/Chem/Phys/Geo/Lab An.	56,600			18,200		
Gilbreath Hall	8,900	Math/Comp Science				4,600	1,250	1,000
Hutcheson Hall	8,004	Clinical & Rehab/Geo						
Nicks Hall	8,055	Computer Science						
Yoakley Hall	3,366	Geosciences		3,366				
VA Building 2	7,335	Physical Therapy						
Warf-Pickel Hall	1,480	Math						
Wilson-Wallis Hall	4,584	Computer Science			4,600			
Total	111,976							

B. Related Backfill Facilities	Released Space - ASF	Occupant(s) Being Relocated	Proposed Backfill Occupants: Public Health	Nursing	App Studies	HDAL
Brown Hall	74,836	Bio/Chem/Phys/Geo/Lab An				
Gilbreath Hall	8,900	Math/Comp Science				2,050
Hutcheson Hall	8,004	Clinical & Rehab/Geo	2,000			6,100
Nicks Hall	8,055	Computer Science		6,300	1,705	
Yoakley Hall	3,366	Geosciences				
VA Building 2	7,335	Physical Therapy				
Warf-Pickel Hall	1,480	Math				1,480
Wiilson-Wallis Hall	4,584	Computer Science				
Total	111,976					

Notes:

1. Consolidate all of Clinical and Rehab Sciences on the main campus
2. Public Health will occupy all of Lamb Hall but will still need to remain and expand in Hutcheson Hall.
3. Provides expansion office space for OIT.
4. Provides for part of projected need for Human Development
5 Provides expansion space in Gilbreath for Foreign Languages and the Dean of Arts and Sciences (already in the building).
6. Provides for future needs for the College of Nursing and part of Appalachian Studies in Nicks Hall.
4. Moves the PASTA operation to Gilbreath Hall from Wilson-Wallis and releases space for Engineering Tech to occupy the entire building.

C. Lamb Hall Renovation	Calculated Needs	Current Lamb Hall Space	Released Lamb Hall Space	Hutcheson Hall Space
College of Public Health	53,400	29,352	16,715	7,333

Notes:

1. Consolidates and provides projected space needs expansion space for Public Health.

Table 59: Phase 2 Migration Plan - Initiated by Construction of New Performing Arts Building

A. Construct Performing Arts Building	Calculated Need-ASF
Proposed Building Occupants:	
Music	31,700
Theatre	28,100
Assignable Square Feet	59,800
Estimated Gross Sq. Feet	99,667

Notes:

1. Provides expansion space for Music to meet projected needs with performance space.
2. Consolidates all of Theatre and provides new performance space .

B. Related Backfill Facilities	Released Space - ASF	Occupant(s) Being Relocated	Proposed Backfill Occupants				
			Art	Continuing Studies	TRIO	Cross Discpl Studies	KLSS
Campus Center	7,755	Comm (Theatre)/UKN		2,500	1,055	4,200	
Memorial Hall	7,985	Comm (Theatre)	3,000				4,985
Mathes Hall	4,985	Music	4,985				
Total	25,309						

Notes:

1.. Relocates Cross Disciplinary Studies and Continuing Studies and consolidates the TRIO program into Campus Center.
Existing houses that are now used for Continuing Studies and Cross Disciplinary Studies will be demolished.
2. Provides additional studio space for Art in Mathes and Memorial Hall.
3. Provides for most of the additional needs for Kinesiology, Leisure and Sports Science in Memorial Hall.

Table 60: Phase 3 Migration Plan: Initiated by Repurposing Old Residence Hall

A. Repurpose Old Dorms	Assignable Square Feet
Estimated Available Area	50,500
Proposed Occupants:	
Sociology	8,500
English	15,100
Criminal Justice and Criminology	4,800
History	7,400
Philosophy and Humanities	3,000
Little Bucs	7,200
Total - ASF	46,000

Notes:

1. Consolidates TRIO program.
2. Relocates Cross Disciplinary Studies out of Maple Street House (future building site)
3. Provides English with projected needs in consolidated location
4. Relocates three departments out of Rogers - Stout for expansion/consolidation of Psychology and Political Science.
5. Relocates Little Bucs to provide space for other College of Education programs.

B. Related Backfill Facilities	Released Space - ASF	Occupant(s) Being Relocated	Proposed Backfill Occupants					
			Art	Psych	Political Science	Curriculum	Ed . Ldrshp	Ctr Math
Burleson Hall	7,429	English	7,429					
Rogers - Stout Hall	11,112	Crim/Hist/Phil/Socio		8,350	2,300			
Campus Center	2,465	Psychology/SOAA						
Warf-Pickel Hall	6,594	Little Bucs				4,300	1,950	300
Culp Center	2,380	TRIO						

B. Related Backfill Facilities	Released Space - ASF	Occupant(s) Being Relocated	Proposed Backfill Occupants	
			TRIO	Univ. Center
Burleson Hall	7,429	English		
Rogers - Stout Hall	11,112	Crim/Hist/Phil/Socio		
Campus Center	2,465	Psychology/SOAA	2,465	
Warf-Pickel Hall	6,594	Little Bucs		
Culp Center	2,380	TRIO		2,380

Notes:

1. Provides another adjacent building to Ball Hall for Art department expansion (Burleson Hall).
2. Provides space for expansion/consolidation of Psychology and Political Science in Rogers-Stout Hall.
3. Provides part of space for consolidating TRIO program into the Campus Center.
4. Moves Little Bucs out of Warf-Pickel to provide expansion space for other Education departments currently in building..
5. Provides space within Culp Center for student service space (i.e., meeting rooms).

Table 61: Phase 4 Migration Plan: Initiated by Repurposing Surplus Space in Sherrod Library

A. Repurpose Surplus Space in Sherrod Library	Assignable Square Feet
Estimated Available Area	25,000
A. Proposed Occupants:	
Advising Resources, Career Center	11,500
Center for Appalachian Studies	2,100
Writing Center	2,000
Math Tutoring	700
OIT Computer Labs	8,000

Notes:

1. Relocates advising and tutoring services along with student open labs out of Culp Center and Warf - Pickel.
2. Provides expansion space for Center for Appalachian Studies.

		Proposed Backfill Occupants					
B. Related Backfill Facilities	**Released Space - ASF**	**Occupant(s) Being Relocated**	**Counseling Center**	**SORC**	**Academic Tech Services**	**Univ Center**	**HDAL**
Culp Center	17,145	Advising/OIT	1,800	2,100	1,200	12,045	
Warf-Pickel Hall	2,700	Writing & Math					2,700

Notes:

1. Provides expansion space for student service operations along with student lounge space and meeting rooms.
2. Provides for part of projected need for Human Development in Warf-Pickel Hall.

Table 62: Phase 5 Migration Plan: Backfill Valleybrook Farm Facility

A. Backfill Space at Valleybrook Farm	Assignable Square Feet
Estimated Available Area	72,000
A. Proposed Occupants:	
Innovation Lab/SBDC	18,200
Geosciences	4,000
Biological Sciences	3,000
Military Sciences	9,000
Pharmacology Research	16,300
Pathology Research	9,800
ENTREL Lab	2,000
Swing Space	9,750

Notes:

1. Relocates the Innovation Lab and SBDC operations from Johnson City.
2. Provides for future research space needs for Geosciences.
3. Provides field research space for Biological Sciences
4. Relocates the research and service lab space functions for Pharmacology from Buildings. 6 and 119
5. Relocates the research and service lab space functions for Pathology from Buildings. 6 and 119.
6. Relocates the ENTREL Lab operation out of Building 119.
7. Moves Military Sciences from Memorial Hall.

		Proposed Backfill Occupants					
B. Related Backfill Facilities	**Released Space - ASF**	**Occupant(s) Being Relocated**	**Pharmacy**	**Procure Srvs**	**Finan Services**	**Budget**	**Admis**
Innovation Lab	18,150	ILAB/SBDC	3,500	3,000	8,750	1,000	
Burgin Dossett Hall	10,700	Finan Services/Procure/Budget					1,500
Memorial Hall	9,000	Military Sciences					
Building 119	21,090	Pathology/Pharm/Surgery					
Building 6	10,265	Pathology/Pharmocology					

		Proposed Backfill Occupants					
B. Related Backfill Facilities	**Released Space - ASF**	**Occupant(s) Being Relocated**	**Financial Aid**	**Registrar**	**Univ Advance.**	**Univ Rel**	**KLSS**
Innovation Lab	18,150	ILAB/SBDC					
Burgin Dossett Hall	10,700	Finan Services/Procure/Budget	2,000	1,000	3,000	2,000	
Memorial Hall	9,000	Military Sciences					3,800
Building 119	21,090	Pathology/Pharm/Surgery					
Building 6	10,265	Pathology/Pharmacology					

		Proposed Backfill Occupants					
B. Related Backfill Facilities	**Released Space - ASF**	**Occupant(s) Being Relocated**	**App Studies**	**Surgery**	**Pharmaco**	**Internal Med**	**Peds**
Innovation Lab	18,150	ILAB/SBDC					
Burgin Dossett Hall	10,700	Finan Srv/Procure/Budget					
Memorial Hall	9,000	Military Sciences	5,200				
Building 119	21,090	Pathology/Pharm/Surgery				6,650	5,100
Building 6	10,265	Pathology/Pharmacology		7,400	1,300		

B. Related Backfill Facilities	Released Space - ASF	Proposed Backfill Occupants				
		Occupant(s) Being Relocated	OBGYN	Micro	Med Physio	Biochem
Innovation Lab	18,150	ILAB/SBDC				
Burgin Dossett Hall	10,700	Finan Services/Procure/Budget				
Memorial Hall	9,000	Military Sciences				
Building 119	21,090	Pathology/Pharm/Surgery	1,000	2,950	1,200	3,000
Building 6	10,265	Pathology/Pharmacology				

Notes:

1. Provides for interim research lab space for the College of Pharmacy in the Innovation Lab facility.
2. Relocates Procurement, Financial Services and Budget and Financial Planning from Burgin Dossett (operations with minimal student or public interaction).
3. Provides future expansion space for Kinesiology and Appalachian Studies in Memorial Hall.
4. Relocates Surgery out of Building 119 into Building 6 and consolidates their research function.
5. Provides for future research and office needs for Internal Medicine, Pediatrics and Microbiology within Building 119.
6. Provides for future research lab needs for Medical Physiology, OBGYN and Biochemistry within Building 119.
7. Provides for additional office needs for Pharmacology in Building 6.
8. Provides for future office needs for Admissions, Financial Aid, Registrar, University Advancement and University Relations in Burgin Dossett Hall
9. Future space provided for Appalachian Studies and University Relations would release space in the lower level of Sam Wilson Hall that would be re-assigned to the College of Business Administration to address their future needs.

Table 63: Phase 6 Migration Plan- Initiated by Construction of New Public Safety and Parking Services Facility

	Calculated Need - ASF
Estimated Available Area	10,000
A. Proposed Occupants:	
Public Safety	5,000
Parking and Transportation	2,000
Environmental Health and Safety	2,000

Notes:

1. Relocates Public Safety and Parking and their existing buildings are demolished.

Master Plan Appendix B

- ETSU Parking & Access Study

Campus Master Plan Update

DESMAN
ASSOCIATES

PLANNERS
CONSULTANTS
ARCHITECTS
ENGINEERS

ETSU Parking & Access Study
East Tennessee State University
Tennessee

Submitted To:

East Tennessee State University

Submitted By:

DESMAN
ASSOCIATES

January 8 2008

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I. INTRODUCTION

Colleges and universities across the country have begun to realize the physical and financial stress that parking and parking related services place on their institutions. On average, it costs $18,000 per structured space and $2,500 per surface space to build new parking spaces. This cost excludes land and other soft costs associated with development. In addition, it costs approximately $500 per structured space and $100 per surface space annually to manage and maintain parking spaces. User fees required to fund these development and management costs can equate to $100 per parker per month depending on the volume and turnover of parkers and the ratio of structured to surface spaces. Such rates are uncommon on most college campuses. As an alternative, campus administrators must either forego required operations and maintenance costs, leading to poor management practices and deteriorating parking facilities, utilize general funds, thereby draining its academic budget, or some combination of the two.

East Tennessee State University (ETSU), located in Johnson City, Tennessee, is a state-supported, co-educational institution. ETSU has a student population of over 12,000, including undergraduate, graduate, medical students and medical residents from over 40 states and 60 foreign countries. Nearly 2,500 students reside in resident halls, university apartments, efficiencies, and married student housing. There are some 1,700 full-time faculty and staff and approximately 500 adjunct faculty and part-time employees. As a result, a large volume of students, faculty, and staff must travel to the campus each day. Access is supported by just over 6,700 parking spaces and Johnson City Transit bus and shuttle services.

Most recently, ETSU experienced its largest spring 2006 and fall 2007 enrollment. This increase included 500 new dorm rooms with the completion of Governor's Hall. The recently completed and approved Main Campus Master Plan identified a number of proposed changes and improvements that could increase the stress on the already strained parking and access infrastructure. Projects of note include a fine arts center, additional and renovated housing, and improvements to athletic facilities. The Master Plan also recommends shifting traffic from the interior of the campus by relocating parking from core surface lots to parking structures and lots on the periphery. Such a shift from core surface lots to peripheral parking structures would only increase ETSU's parking and shuttle debt service and operating costs.

DESMAN Associates was contracted by East Tennessee State University to evaluate existing and future parking supply, demand, and operational conditions at its Main Campus in Johnson City, Tennessee. The study area is defined by State of Franklin Road to the north, University Parkway to the east, Boundary Road to the south, and South Greenwood Drive to the west. The study area also includes the Buccaneer Ridge and Pirate Cove Apartments to the south. Exhibit A identifies the study area boundaries. The study is to create a ten-year future parking adequacy model based on current conditions, anticipated population changes, campus development projects, projected transit changes,

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and the approved campus master plan. Once these conditions are quantified, the study is to evaluate alternative measures and costs to mitigate any projected parking shortfalls, including but not limited to:

- Parking policy and pricing
- Allocation and assignment of parking
- Parking enforcement and adjudication
- Modification to current shuttle operations
- Location and capacity of additional parking facilities (if warranted)
- Parking/Shuttle mission statement and "Plan of Action"
- Funding alternatives to support necessary improvements

Once an approved action plan is identified and approved, the report presents a financial model that illustrates changes in expenses to implement future programs, necessary system upgrades, and parking system changes that respect the parameters of parking within an auxiliary service perspective. That is to say that the parking and shuttle program will need to be financially self-supporting.

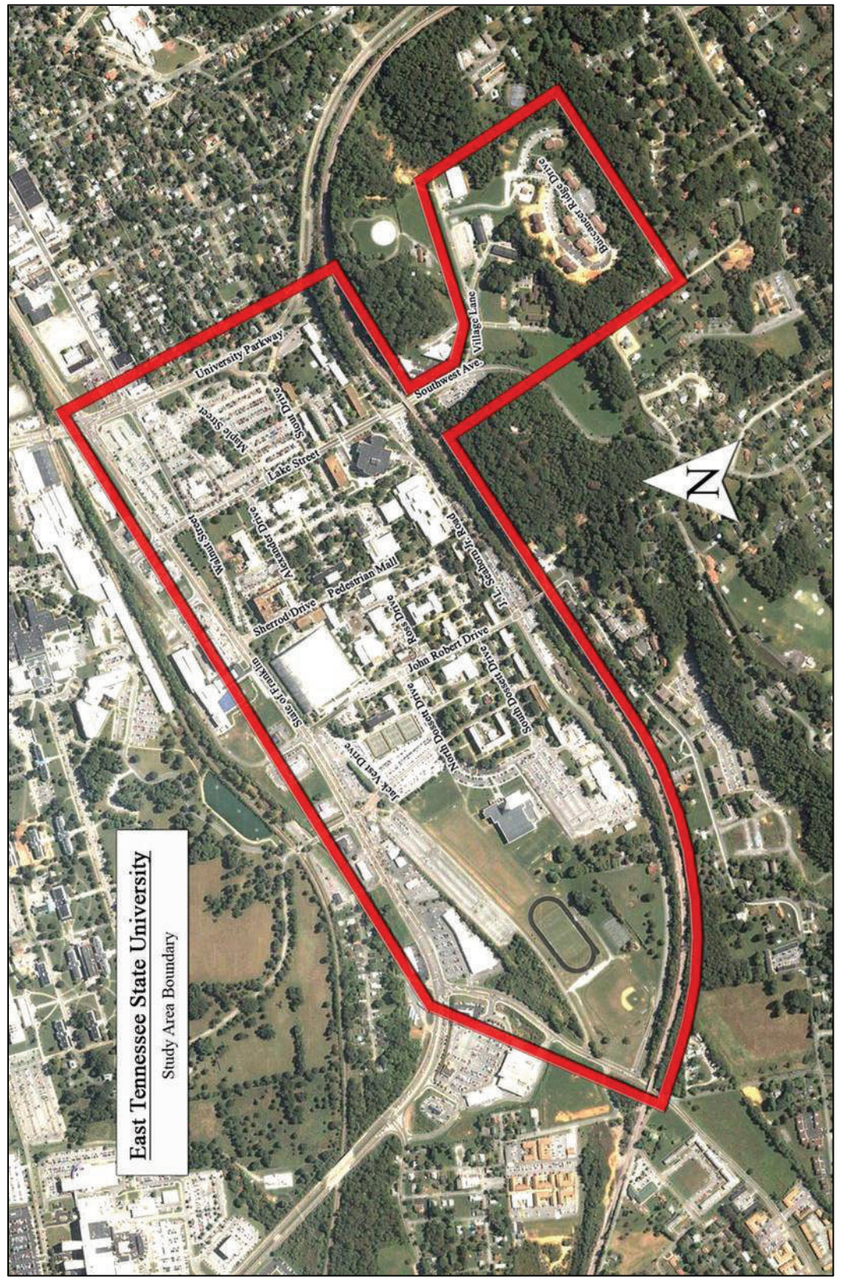


Exhibit A: **Study Area Boundary**

II. METHODOLOGY

A study of parking is realistically a study of people, their trip purpose, their expectations, and the factors behind the choices they make. It has been noted in the Master Plan and during various conversations with faculty, staff, and students that ETSU is a commuter campus where single occupant vehicle travel (SOV) is the norm and transit/shuttle use is uncommon. As a result, the growth of the institution is dependent to a significant degree on the provision of adequate parking. The study must quantify trip mode choices (drive, carpool, shuttle, etc.), the cost of providing parking and shuttle services, the alternatives to driving that may be available, and the financial feasibility to developing additional, aka structured, parking facilities.

This report and the technical work that supports it have been subdivided into six sections.

- **Assessment of Existing and Future Supply and Demand Conditions**
- **Review of Current Parking Operations**
- **Physical and Operational Recommendations**
- **Space Allocation Strategies and Financial Accountability**

The first two sections present an assessment of existing and future parking conditions to include parking occupancy and vehicle turnover surveys, a review of parking operations, management, enforcement policies and procedures, parking rates, fees, and fines for violations, and ADA parking space compliance. A key product of these first sections is the development of parking demand ratios that accurately predict the demand for parking for faculty, staff, resident students, commuting students, and visitors as the institution grows.

The later two sections will examine a broad range of traditional parking improvements, including but not limited to user group space allocation, the establishment of a parking and transportation services department, visitor parking management programs, and the location and size of a future parking structure. These improvements must be developed and maintained within a business management model where the costs are offset by user fees and other financing strategies.

III. ASSESSMENT OF EXISTING & FUTURE SUPPLY & DEMAND CONDITIONS

A. Current Parking Inventory

Based on information obtained from ETSU related to the current parking inventory and confirmation of this information during the September 17th through 20th field surveys, parking spaces on campus are allocated/assigned/restricted to a variety of user groups and activities, including students, faculty/staff, service vehicles, visitors, and those individuals who are handicapped (ADA accessible spaces). Faculty/staff and student allocated spaces are identified through a combination of lot signage and payment markings; blue for faculty/staff and gold for students. Those individuals who wish to bring a vehicle to campus are required to obtain an appropriate permit. There are a number of handicapped, metered, and service vehicle spaces throughout the campus. The campus also provides a number of spaces that are available to any user group. These are defined as "open" spaces.

Table 1 presents a complete inventory of parking by lot and by restriction, Graph 1 provides a summary of the spaces for each user group, and Exhibit B illustrates their location and assignment through color coding. Parking is available in sixty different surface lots ranging in size from 7 spaces (Lot 24) to 711 spaces (Lot 22a) and along eleven different streets. Of the 6,726 total spaces on campus and at Buccaneer Ridge, 3,182 (47.3%) are allocated to students, 1,149 (17.1%) are allocated to faculty and staff, and 2,089 (31.1%) are open. Handicapped (143), metered (19), service vehicles/loading (26), reserved (89), and visitor (6) constitute the remaining 4.5% of the total. The total includes 463 spaces that are off-campus in Buccaneer Ridge but excludes the surface parking lot (Lot 9) that is behind Governor's Hall, which is currently being used for construction staging.

Exhibit B: **ETSU Existing Parking Inventory by Restriction**

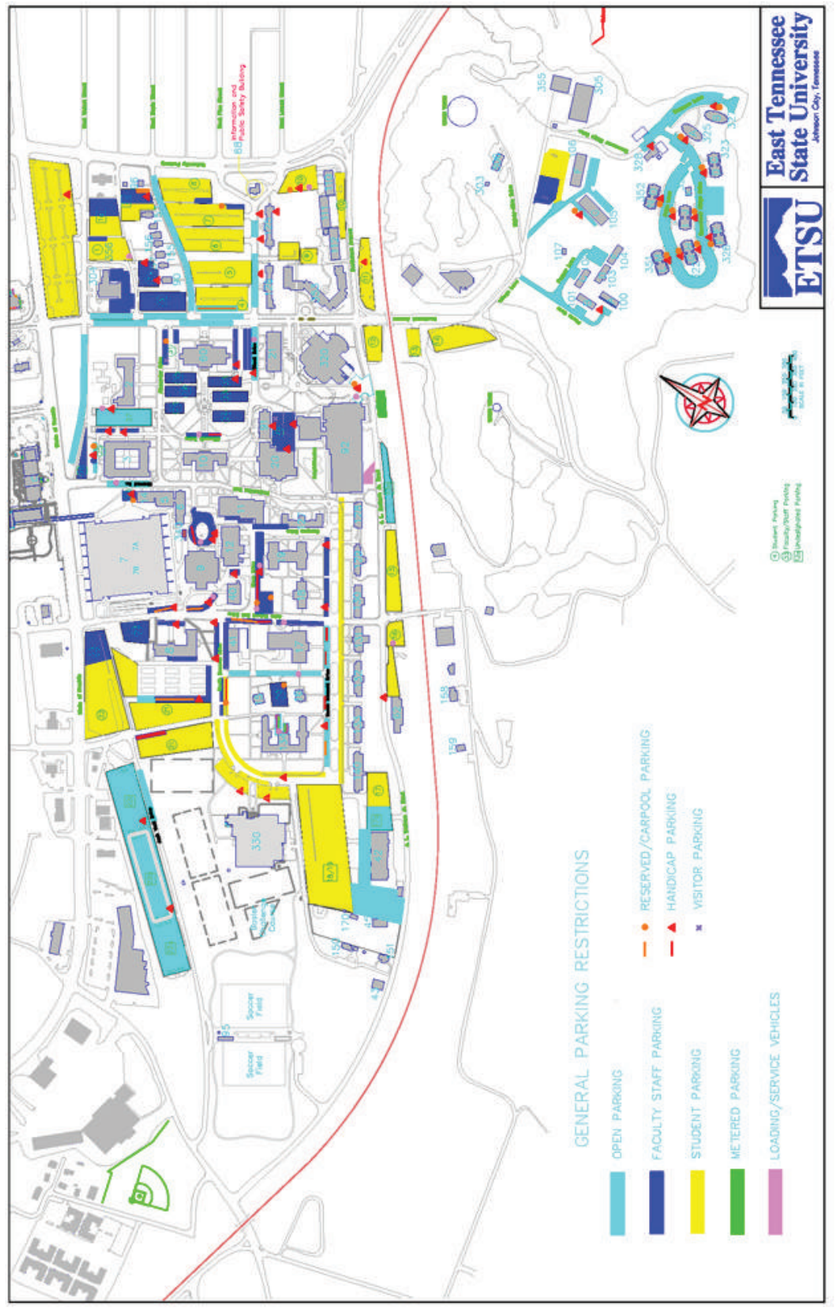
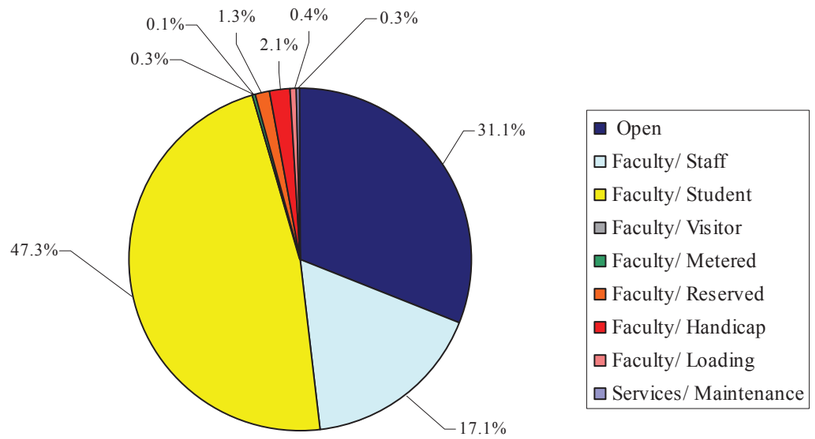


Table 1:
Current Parking Inventory by User Group

On Street	Open	Faculty/Staff	Student	Visitor	Metered	Reserved	Handicap	Loading	Services/ Maintenance	Total
John Robert Bell Drive		72				11	5	3	4	**95**
Jack Vest Drive	46									**46**
Sherrod Drive								1	3	**4**
Unknown Street (1)	19								1	**20**
Lake Street	125									**125**
Maple Street	30									**30**
Stout Drive	27						2	1	2	**32**
Gilbreath Drive		32					6	1		**39**
Walnut Drive	64									**64**
North Dosset Drive		41	99			2	6			**148**
South Dosset Drive	43	32	86			7	15	7		**190**
On Street Subtotal	**354**	**177**	**185**	**0**		**20**	**34**	**13**	**10**	**793**
Off Street										**0**
Lot 1		11	64					2		**77**
Lot 1a		42	42							**84**
Lot 2		53					3			**56**
Lot 2a		37	37			6	1			**81**
Lot 3		96								**96**
Lot 4			105							**105**
Lot 5			137							**137**
Lot 6			142							**142**
Lot 7		12	152			3				**167**
Lot 8		10	90							**100**
Lot 10			113			5	2	1		**121**
Lot 11			78				1			**79**
Lot 12			65							**65**
Lot 12a					19					**19**
Lot 13			33							**33**
Lot 14			122							**122**
Lot 15			125							**125**
Lot 15a	65									**65**
Lot 16			81				2	1		**84**
Lot 17			69							**69**
Lot 17a	43									**43**
Lot 18/19	211		408							**619**
Lot 20		29				3				**32**
Lot 21		11	495				30			**536**
Lot 22		63	127							**190**
Lot 22a	709						2			**711**
Lot 23		50								**50**
Lot 24		3				1	3			**7**
Lot 25	25	1				1	4			**31**
Lot 26		21								**21**
Lot 27	53						4	1		**58**
Lot 28		22								**22**
Lot 29		43								**43**
Lot 30		39								**39**
Lot 31		35		3		2				**40**
Lot 32		72					1			**73**
Lot 33		50								**50**
Lot 34		45								**45**
Lot 35		39		3			4			**46**
Foundry Lot			398				4			**402**
Ross Drive		96				4	8	4	2	**114**
Memorial Hall Circle (#9)		12					11	1	2	**26**
Basler Lot A			36				2			**38**
Basler Lot B			29				2			**31**
Culp Center Lot A	3					3	4	1		**11**
Culp Center Lot B						3		3	3	**9**
Clement Hall (#134)	10							1	1	**12**
Tennis Courts	4	14				26	3			**47**
Warf-Pickel Hall (#8)	8								3	**11**
Hutcheson Hall (#18)		17				1				**18**
Pirate Cove	69						2			**71**
Residences "F/G"	72	49	49			1	3			**174**
Buccaner Ridge	463					10	13			**486**
Off Street Subotal	**1,735**	**972**	**2,997**	**6**	**19**	**69**	**109**	**15**	**11**	**5,933**
ETSU System Total	**2,089**	**1,149**	**3,182**	**6**	**19**	**89**	**143**	**28**	**21**	**6,726**
Allocation Percentage	*31.1%*	*17.1%*	*47.3%*	*0.1%*	*0.3%*	*1.3%*	*2.1%*	*0.4%*	*0.3%*	

Graph 1:
Percentage Breakdown of Spaces by Assignment/Restriction

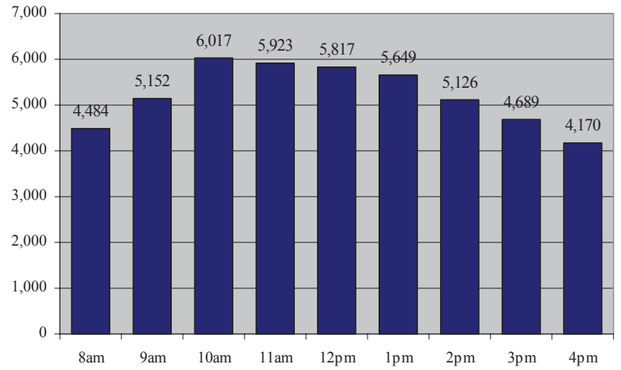


While there is no rule of thumb regarding the percentage of spaces that should be allocated to different user groups on a university campus, there are some unique conditions at ETSU that present themselves. First, ETSU has only 6 visitor designated spaces. Three of these spaces are designated for Reece Museum visitors. Visitors are instructed to go to the Information and Public Safety Building to obtain a visitor pass, permitting them to park in any space. Second, the campus has only 19 metered spaces (in Lot 12a behind Culp Center). Metered spaces are effective in meeting short-term parkers and visitors needs and the revenue that is generated for the parking system can be significant. Third, the University has an abundance of open parking spaces. Open spaces are generally used for overflow parking when the spaces that are assigned (but not reserved) to specific user groups reach capacity. For example, if a faculty member were unable to find a space in a faculty allocated lot, he or she would be able to use a space in an open lot. These open lots are typically found on the periphery of a campus. Recommendations regarding a more effective and efficient space allocation and assignment program will be presented in an upcoming section.

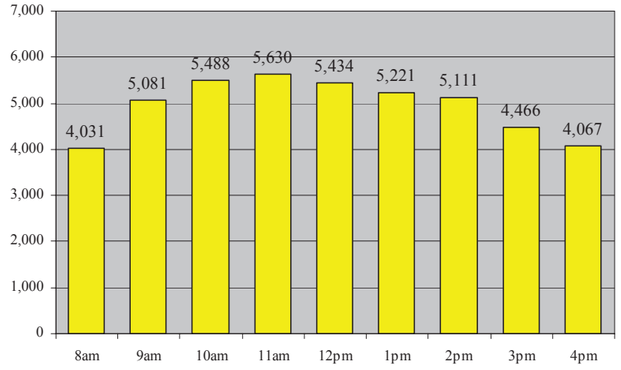
B. Current Parking Occupancy

To determine the utilization of and ultimately the parking demand generated by each of the University's user groups, hourly parking occupancy counts were conducted between the hours of 8 AM and 4 PM on Tuesday, September 18th and Wednesday, September 19th. While detailed lot by lot hourly survey results are included in Appendix Table A1 (Tuesday) and A2 (Wednesday) Graphs 2a and 2b summarize the overall results of the survey for each day.

Graph 2a:
Summation of Tuesday Parking Occupancy Counts



Graph 2b:
Summation of Wednesday Parking Occupancy Counts



Each survey day exhibited a similar parking accumulation pattern. However, the Tuesday survey revealed significantly higher peak period volume. Tuesday's peak reached 6,017 occupied spaces at 10 AM while Wednesday's peak (11 AM) reached 5,630 spaces. Naturally, parking accumulation patterns and peak volumes are driven by enrollment and class schedules. Parking patterns will be compared to staffing and enrollment/schedule patterns later in this report.

More meaningful examinations of parking utilization focuses on peak utilization and parking accumulation patterns by space restriction/user group, an interpretation of the parking system's practical capacity, and peak surplus and deficit conditions by lot and by restriction/user group. Note that the following Tables and Exhibits differentiate between core campus and off-campus utilization.

Tables 2a and 2b breakdown the occupancy surveys by location (core vs. off-campus) and by parking restriction/user group allocation for each survey day respectively. On Tuesday, the core campus on-street utilization nearly reached 100% occupancy while off-street achieved 94% occupancy. Of the 5,995 core campus spaces, only 300 were unoccupied during the peak period. Off-campus parking, which includes Pirates Cove and Buccaneer's Ridge, had low levels of utilization throughout the day (between 41% and 49% occupancy). The consistency of utilization in these three off-campus residences suggests that students are not utilizing their cars to get to campus in large numbers. On Wednesday, the core campus on-street utilization reached nearly 100% while off-street occupancy dropped to 88%. During the peak Wednesday period as many as 656 parking spaces were unoccupied. Off-campus parking occupancy patterns on Wednesday were practically identical to Tuesday's occupancy.

Table 2a:
Tuesday Parking Occupancy by Location and Restriction/User Group

Core Campus	Inventory	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm
On Street										
Open	354	324	350	357	354	348	344	338	316	299
Faculty/Staff	177	132	166	180	178	175	172	170	167	163
Student	185	159	171	181	181	179	178	179	176	176
Visitor	0	0	0	0	0	0	0	0	0	0
Reserved	20	15	19	20	20	20	19	19	19	19
Handicap	34	27	31	33	33	33	32	33	31	31
Loading	13	10	12	13	13	13	13	13	12	12
Services	10	7	9	10	10	9	9	8	8	7
On-Street Subtotal	**793**	**674**	**758**	**794**	**789**	**777**	**767**	**760**	**729**	**707**
Off-Street										
Open	1,131	345	548	970	895	864	800	628	528	439
Faculty/Staff	923	679	831	907	895	864	862	820	784	679
Student	2,948	2,280	2,529	2,829	2,872	2,825	2,725	2,433	2,173	1,893
Visitor	6	6	6	6	6	7	6	6	6	5
Metered	19	8	19	20	19	19	18	18	17	14
Reserved	58	48	53	55	55	53	53	51	46	44
Handicap	91	77	83	95	93	90	90	86	79	78
Loading	15	13	13	14	14	14	14	15	13	13
Services	11	6	6	6	6	6	7	7	5	6
Off-Street Subtotal	**5,202**	**3,462**	**4,088**	**4,902**	**4,855**	**4,742**	**4,575**	**4,064**	**3,651**	**3,171**
Core Campus Total	**5,995**	**4,136**	**4,846**	**5,696**	**5,644**	**5,519**	**5,342**	**4,824**	**4,380**	**3,878**
Occupancy Percentage		*69%*	*81%*	***95%***	*94%*	*92%*	*89%*	*80%*	*73%*	*65%*
Off-Campus										
Open	604	316	285	303	259	276	286	283	288	270
Faculty/Staff	49	12	13	11	13	14	12	12	12	11
Student	49	12	13	11	13	13	12	11	12	11
Visitor	0	0	0	0	0	0	0	0	0	0
Reserved	11	6	5	6	5	5	5	5	5	5
Handicap	18	10	9	10	8	9	9	9	9	9
Loading	0	0	0	0	0	0	0	0	0	0
Services	0	0	0	0	0	0	0	0	0	0
Off Off-Campus Total	**731**	**356**	**325**	**341**	**298**	**317**	**324**	**320**	**326**	**306**
Occupancy Percentage		*49%*	*44%*	***47%***	*41%*	*43%*	*44%*	*44%*	*45%*	*42%*
Total	**6,726**	**4,492**	**5,171**	**6,037**	**5,942**	**5,836**	**5,666**	**5,144**	**4,706**	**4,184**
		67%	*77%*	***90%***	*88%*	*87%*	*84%*	*76%*	*70%*	*62%*

Table 2b:

Wednesday Parking Occupancy by Location and Restriction/User Group

Core Campus	Inventory	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm
On Street										
Open	354	340	352	355	356	350	341	344	308	288
Faculty/Staff	177	136	168	176	176	168	168	168	168	164
Student	185	151	172	179	179	178	175	180	175	175
Visitor	0	0	0	0	0	0	0	0	0	0
Reserved	20	15	19	20	20	20	19	19	19	19
Handicap	34	29	32	33	33	32	32	32	31	31
Loading	13	11	12	13	13	13	12	12	12	11
Services	10	7	9	10	10	9	9	8	8	7
On-Street Subtotal	**793**	**689**	**764**	**786**	**787**	**770**	**756**	**763**	**721**	**695**
Off-Street										
Open	1,131	278	444	633	723	658	565	552	444	407
Faculty/Staff	923	611	833	879	874	824	816	828	770	725
Student	2,948	1,963	2,546	2,697	2,761	2,711	2,613	2,500	2,077	1,834
Visitor	6	5	6	6	6	5	6	6	6	6
Metered	19	10	14	19	19	19	18	18	17	17
Reserved	58	43	53	55	56	55	53	53	47	43
Handicap	91	67	83	91	93	91	89	86	77	74
Loading	15	13	13	14	14	13	14	14	13	13
Services	11	6	5	6	6	5	6	7	6	6
Off-Street Subtotal	**5,202**	**2,996**	**3,997**	**4,400**	**4,552**	**4,381**	**4,180**	**4,064**	**3,457**	**3,125**
Core Campus Total	**5,995**	**3,685**	**4,761**	**5,186**	**5,339**	**5,151**	**4,936**	**4,827**	**4,178**	**3,820**
Occupancy Percentage		*61%*	*79%*	*87%*	***89%***	*86%*	*82%*	*81%*	*70%*	*64%*
Off-Campus	**Inventory**	**8am**	**9am**	**10am**	**11am**	**12pm**	**1pm**	**2pm**	**3pm**	**4pm**
Open	604	318	295	281	270	264	265	268	270	231
Faculty/Staff	49	11	12	13	13	12	12	10	11	11
Student	49	11	12	13	13	12	12	10	11	11
Visitor	0	0	0	0	0	0	0	0	0	0
Reserved	11	6	5	5	5	5	5	5	5	4
Handicap	18	10	10	9	9	9	9	9	9	8
Loading	0	0	0	0	0	0	0	0	0	0
Services	0	0	0	0	0	0	0	0	0	0
Off-Campus Total	**731**	**356**	**334**	**321**	**310**	**302**	**303**	**302**	**306**	**265**
Occupancy Percentage		*49%*	*46%*	*44%*	***42%***	*41%*	*41%*	*41%*	*42%*	*36%*
Total	**6,726**	**4,041**	**5,095**	5,507	**5,649**	**5,453**	**5,239**	**5,129**	**4,484**	**4,085**
		60%	*76%*	*82%*	***84%***	*81%*	*78%*	*76%*	*67%*	*61%*

Before discussing parking surplus and deficit figures, the concept of "practical capacity" should be presented. Practical capacity refers to the operational efficiency of a parking facility. A parking facility is perceived by its users to be at full operational capacity when occupancy levels reach 90-95%. Once this level is exceeded, potential parkers find it difficult to locate an available space. As a result, those individuals must continue to search for an available space, creating traffic flow problems and increasing the potential for vehicle/vehicle and vehicle/pedestrian conflicts. The effective and efficient turnover of convenient parking spaces is most successful when the supply of spaces exceeds the peak demand for those spaces by 5-10%. For the purpose of this study DESMAN used a 95% practical capacity for ETSU faculty/staff facilities and a 90% practical capacity for students and visitors. The more stringent definition of practical capacity for students (90%) acknowledges the fact that student spaces, primarily those used by commuting students, turn over much more during the course of the day and therefore generate more significant search and circulation volumes. The analysis presented in Tables 3a (Tuesday) and 3b (Wednesday) illustrates the existing practical surplus and deficit conditions for the ETSU campus and its parking facilities while Exhibit C1 and C2 summarize the peak parking occupancy conditions for each lot. For purposes of clarity, parking facilities are grouped into four main occupancy categories and color coded to reflect their level of occupancy. For example, parking lots which were utilized more than 96% are identified in red, while those utilized less than 80% are identified in blue.

It would appear that faculty/staff parking facilities experienced a practical deficit of 42 spaces during the peak Tuesday period. Student parking, which includes residents and commuters, experienced a peak shortfall of 190 spaces. With the exception of open, reserved, and service vehicle spaces, all other core campus user groups and restrictions exhibited a peak practical deficit on Tuesday. Overall, the core campus parking system experienced a 237 space practical deficit on Tuesday. While parking deficits did persist in those same areas on Wednesday there were on the whole less significant. Furthermore, the practical surplus that did exist in open lots on Tuesday increased from 10 to 258 spaces on Wednesday. As a result, the core campus enjoyed a 120 space practical surplus on Wednesday.

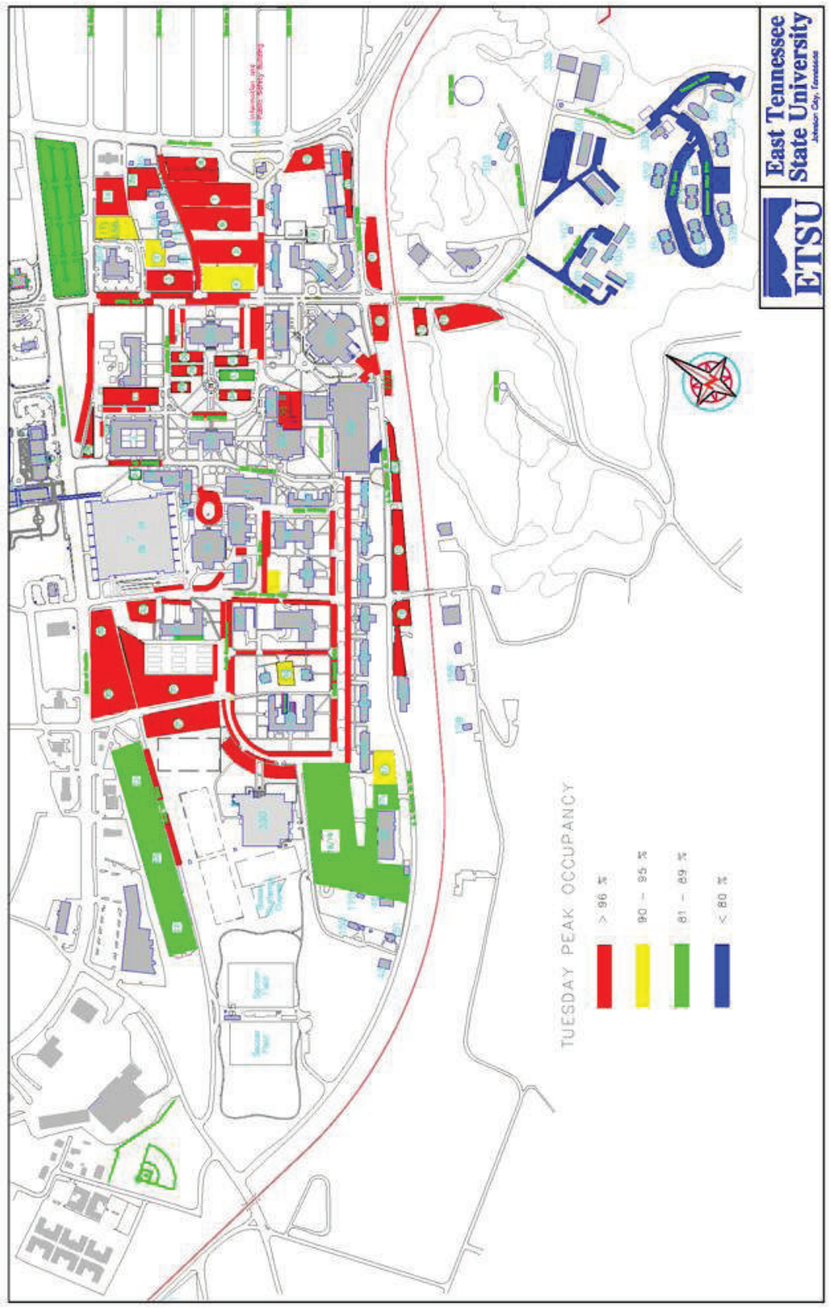


Exhibit C1: **ETSU Peak Parking Occupancy on Tuesday**

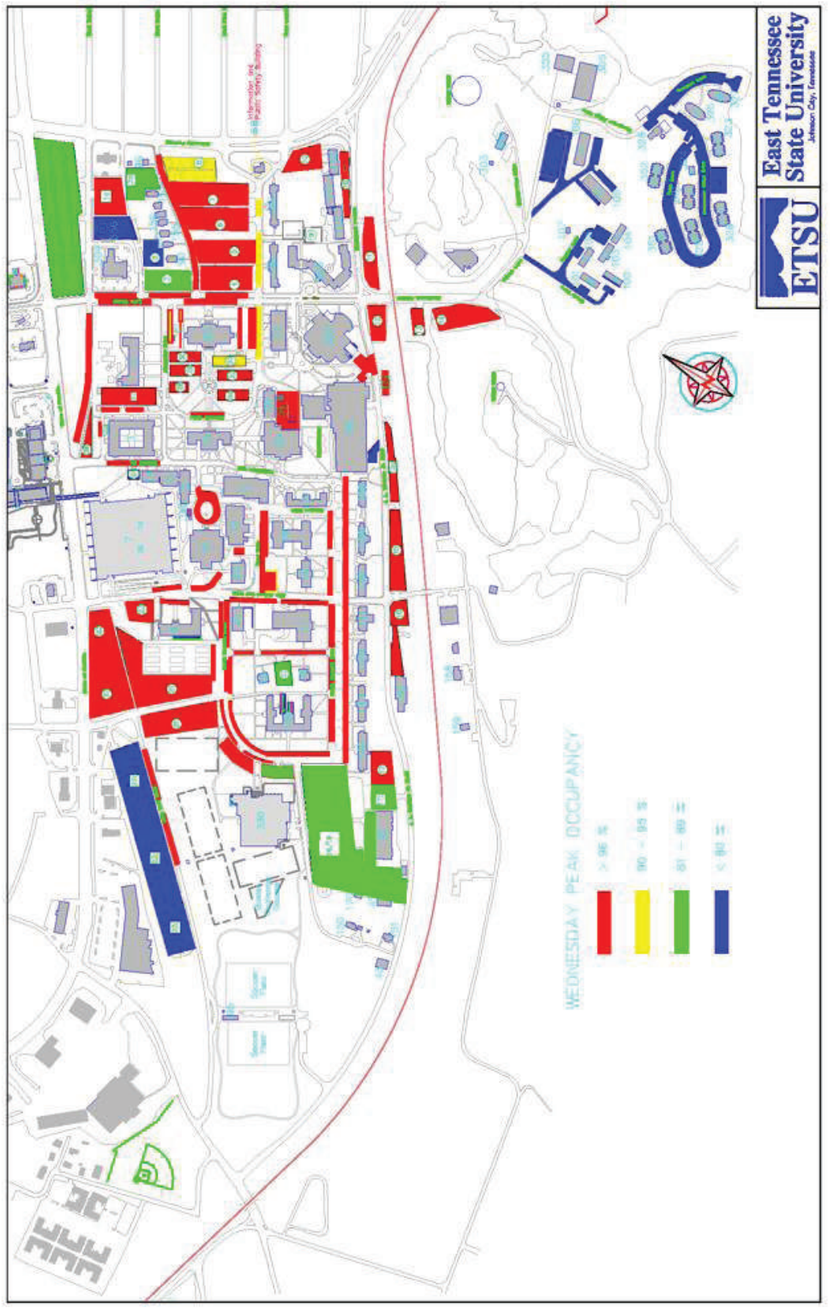


Exhibit C2: **ETSU Peak Parking Occupancy on Wednesday**

Table 3a:

Tuesday Practical Parking Surplus or Deficit by Restriction/User Group

	Inventory	Practical Capacity [1]	Peak Occupancy [2]	Practical Surplus/Deficit
Core Campus				
Open	1,485	1,337	1,327	10
Faculty/Staff	1,100	1,045	1,087	-42
Student	3,133	2,820	3,010	-190
Visitor	6	5	6	-1
Metered	19	17	20	-3
Reserved	78	78	75	3
Handicap	125	113	128	-15
Loading	28	25	27	-2
Services	21	19	16	3
Core Campus Subtotal	**5,995**	**5,459**	**5,696**	**-237**
Off-Campus				
Open	604	544	303	241
Faculty/Staff	49	47	11	36
Student	49	44	11	33
Visitor	0	0	0	0
Reserved	11	11	6	5
Handicap	18	16	10	6
Loading	0	0	0	0
Services	0	0	0	0
Off-Campus Subtotal	**731**	**662**	**341**	**321**
Total	**6,726**	**6,121**	**6,037**	**84**

(1) Practical capacity reflects operational efficiency and is established at 90% occupancy for open, student, visitor, handicap, loading, and service spaces, 95% for faculty/staff spaces, and 100% for reserved spaces (i.e., no adjustment).
(2) Tuesday September 18th peak occupancy occurred at 10 am.

Table 3b:

Wednesday Practical Parking Surplus or Deficit by Restriction/User Group

	Inventory	Practical Capacity [1]	Peak Occupancy [2]	Practical Surplus/Deficit
Core Campus				
Open	1,485	1,337	1,079	258
Faculty/Staff	1,100	1,045	1,050	-5
Student	3,133	2,820	2,940	-120
Visitor	6	5	6	-1
Metered	19	17	19	-2
Reserved	78	78	76	2
Handicap	125	113	126	-13
Loading	28	25	27	-2
Services	21	19	16	3
Core Campus Subtotal	**5,995**	**5,459**	**5,339**	**120**
Off-Campus				
Open	604	544	270	274
Faculty/Staff	49	47	13	34
Student	49	44	13	31
Visitor	0	0	0	0
Reserved	11	11	5	6
Handicap	18	16	9	7
Loading	0	0	0	0
Services	0	0	0	0
Off-Campus Total	**731**	**662**	**310**	**352**
Total	**6,726**	**6,121**	**5,649**	**472**

(1) Practical capacity reflects operational efficiency and is established at 90% occupancy for open, student, visitor, handicap, loading, and service spaces, 95% for faculty/staff spaces, and 100% for reserved spaces (i.e., no adjustment).
(2) Wednesday September 19th peak occupancy occurred at 11 am.

Based on the parking occupancy surveys and excluding the surplus of parking spaces in Pirate Cove and Buccaneer Ridge, ETSU is experiencing a practical parking shortfall on Tuesdays. Though an overall surplus of spaces does exist on Wednesday this surplus is located in three peripheral facilities, Lot 22a, also referred to as the Landing Strip, Lot 18/19 near the Physical Plant, and Lot 1, commonly referred to as the Foundry Lot. It can be presumed that the off-campus parking surplus could be used to satisfy some or all of these practical deficits. The majority of those spaces are scattered throughout two garden style apartment complexes and it would be difficult to share these residential spaces with individuals destined for core campus activities. However, there is a concentration of parking spaces in a lot in front of the “F & G” buildings. These 97 spaces are practically vacant with the exception of three tractor trailer hitches. Even if these spaces were made available through space allocation/assignment and shuttle service strategies they would be unable to satisfy the Tuesday core campus deficit.

As noted previously, a study of parking is a study of people, their trip purposes, and their expectations regarding service levels. Unfortunately, because of the undefined nature of nearly one-third of ETSU’s parking inventory (open spaces) it is difficult to clearly

identity the utilization that is associated with specific user groups. This understanding is a critical element when developing recommendations to meet existing and future parking needs. Table 4 attempts to identify specific user groups' utilization based mainly on the assumption that 10% of faculty and staff parkers use core campus open spaces (90% are students) and that 40% of handicapped spaces are used by faculty/staff (60% students). The accuracy of this assumption and analysis will ultimately be verified or rejected through a modeling of current parking demand using fall 2007 enrollment and employment figures and travel demographics. It is important to note that this estimate of utilization by user group includes spaces (and resident students) in the off-campus lots.

Table 4:
Estimate of Peak Parking Utilization by Major User Groups

User Group	Peak Utilization Tuesday	Wednesday
Faculty/Staff	1363	1302
Resident/Commuting Student	4,605	4,279
Service Vehicle	16	16
Other (1)	53	52
Total	**6,037**	**5,649**

(1) Includes visitors, vendors, contractors, and loading/unloading zone uses

C. Parking Turnover and Duration

A vehicle turnover and duration survey was completed on Thursday, September 20th in an effort to gain a better understanding of the characteristics of faculty, staff, student, and visitor parking. Several areas of the campus were selected:

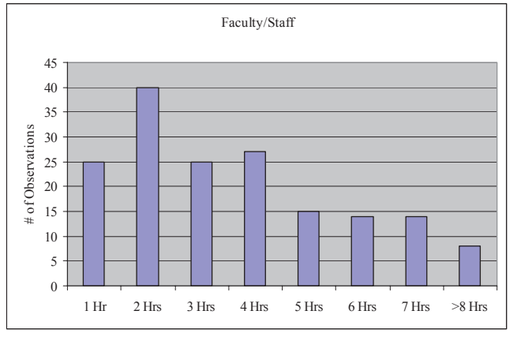
- Lot 3 (Faculty/Staff) – located northeast of Dossett Hall
- Lot 4 (Student) – located east of Dossett Hall
- Lot 11 (Student) – located south of Governor's Hall
- Lot 12 (Student) – located south of Sherrod Library
- Lot 12a (Open/Metered) – located south of Culp Center
- Services Area – serving Culp Center
- Lot 13 (Student) – located south of rail tracks
- Lot 21 (Students) – located just east of athletic fields
- Lots A & B (Student) – located east of Basler Center

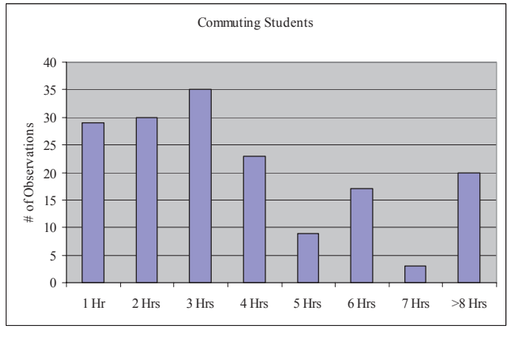
Table 5 and Graphs 3a through 3f summarize the findings from these surveys.

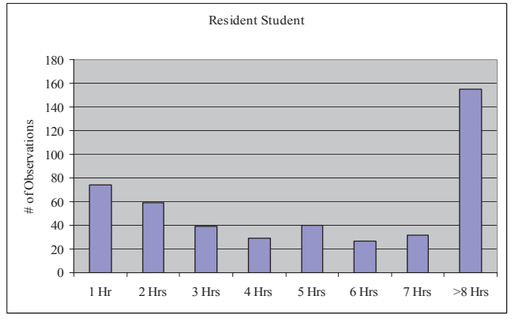
Table 5:
Summary of Sample Vehicle to Space Turnover and Duration Surveys

User Group/Location	Inventory	Total Vehicle Utilization	Vehicles/ Space/Day	Length (Hours)
Faculty/Staff				
Lot 3	97	168	1.7	3.6
Resident Student				
Lot 4	116	211	1.8	4.1
Lot 11	82	102	1.2	6.1
Lot 12	64	95	1.5	5.3
Lot 13	35	47	1.3	5.6
Subtotal	297	455	1.5	4.9
Commuting Students				
Lot 21	98	166	1.7	3.7
Basler Center				
Lot A&B	70	243	3.5	2.1
Metered/Visitor				
Lot 12a	19	60	3.2	2.2
Services Area	13	29	2.2	3.2
Total	**891**	**1,576**	**1.8**	**4.1**

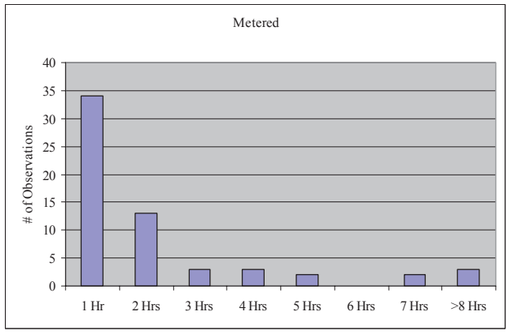
Graphs 3a – 3c:
Summation of Duration of Stay Surveys (Faculty/Staff, Commuting & Resident Students)

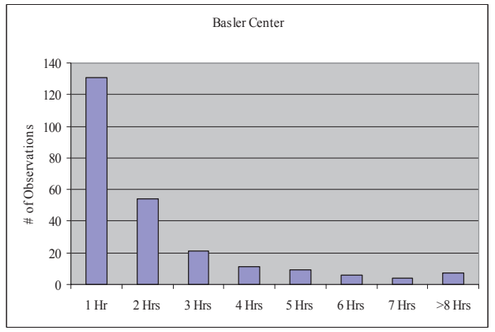


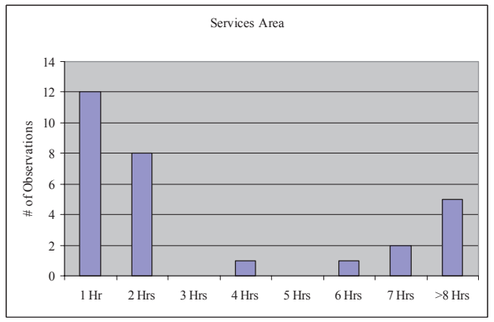




Graphs 3d – 3f:
Summation of Duration of Stay Surveys (Metered, Basler Center & Service Spaces)







While the results for resident students (1.5 vehicles per space/4.9 hour duration), commuting students (1.7 vehicles per space/3.7 hour duration), and metered spaces (3.2 vehicles per space/2.2 hour duration) were rather straightforward and as anticipated the results for faculty/staff, Basler Center, and Service Area spaces were not. The vehicle per space turnover rate for faculty/staff (1.7 vehicles per space) was higher than anticipated and the average length of stay (3.6 hours) was much lower. In fact, the characteristics for parking in faculty/staff Lot 13 was strikingly similar to commuting student characteristics. A closer examination of the data reveals that of the 168 different parkers that used this lot from 8 AM to 4 PM, 65 (39%) parked for less than two hours.

It could very well be that short-term parkers (visitors and commuting students) are using that faculty/staff lot in large numbers.

The Basler Center results show a very short duration of stay and a high vehicle per space turnover rate. The results are indicative of a health club, were the average duration of stay is less than 2 hours.

In summary, the surveys revealed a large number of vehicles remained parked for long periods of time in service vehicle spaces. While it is understood that some construction and contractor activity is occurring near the Culp Center, these service spaces should not be used for long-term parking and the turnover rate should be much higher.

D. Pedestrian Questionnaires

Pedestrian surveys were conducted on Tuesday, September 18th and Wednesday September 19th to gather pedestrian information. Ultimately, the study required sufficient information on mode choices to model the existing and future parking demand by user group and by building.

Referred to as "point of access" questionnaires, survey personnel were stationed at high traffic volume areas throughout the campus in an effort to get a representative sample of all campus user groups. The survey form had the following five questions:

1. What is the purpose of your trip?
2. How long will you be here today?
3. How did you arrive?
4. If self parked where did you park?
5. What is your residential zip code (origin/destination data)?

In total, 510 individuals were interviewed, including but not limited to, 46 faculty/staff, 350 commuting students, and 101 resident students. As the study will need to develop peak parking demand ratios for each user group, this section of the report focuses on the travel characteristics for each group, with particular interest in the auto use percentage of the two larger parking groups, commuting students and faculty/staff. According to the surveys, 96% of commuting students and 95% of faculty/staff arrive to campus via the automobile. The persons per auto occupancy rate is also quite low as only 9 out of every 100 commuter student vehicles and 5 out of every 100 faculty/staff vehicles have a passenger (rideshare/carpool). As it relates to resident student auto use, the results may be misleading as 20% of respondents that indicated they either drove or were a passenger may include students who were confused by the question. Nonetheless, even if the true percentage was slightly lower there should be no reason why a resident student would need a vehicle to get to class.

Table 6:

Travel Mode Characteristics for various Campus Parking User Groups

User Group	# of Responses	Drove Own Car	Passenger in Car	Bus or Shuttle	Bike or Walk	Persons per Vehicle
Resident Student	101	18%	2%	3%	77%	1.11
Commuting Student	350	86%	8%	1%	5%	1.09
Faculty/Staff	46	91%	4%	2%	2%	1.05
Event Visitor	2	100%	0%	0%	0%	1.00
Business Visitor	7	86%	0%	0%	14%	1.00
Other	4	50%	50%	0%	0%	2.00
Campus Total	**510**	**73%**	**7%**	**1%**	**19%**	---

There are a number of reasons why auto use percentages are so high and person per auto occupancy is so low. One of the strongest indicators of single occupancy vehicle (SOV) dependence is the distribution of commuting students and faculty/staff throughout the region. Exhibit D1 illustrates the results of the residential zip code question for commuting students while Exhibit D2 illustrates the results for faculty and staff. Note that each exhibit includes the current routing coverage of Johnson City Transit's regional service.

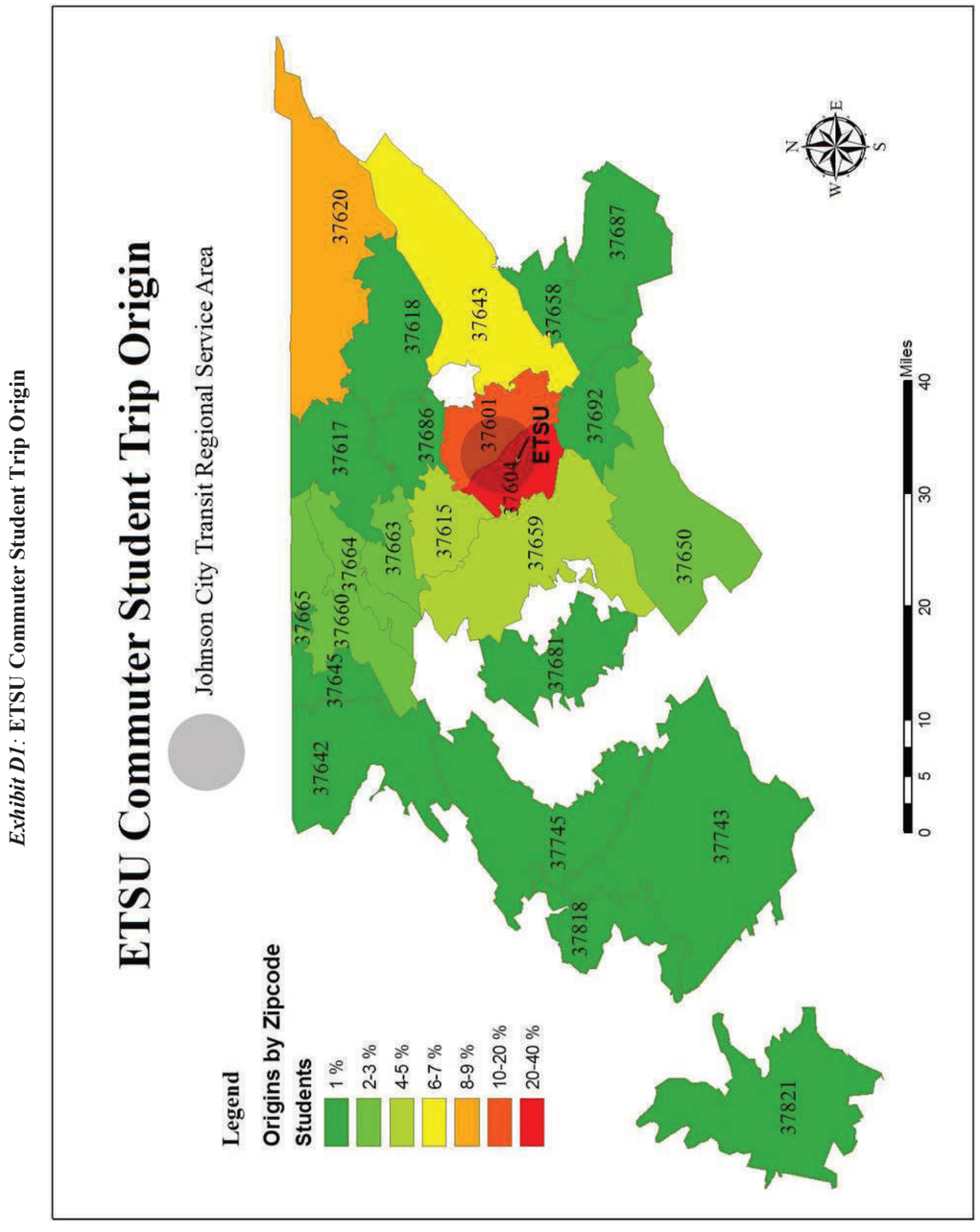


Exhibit D1: **ETSU Commuter Student Trip Origin**

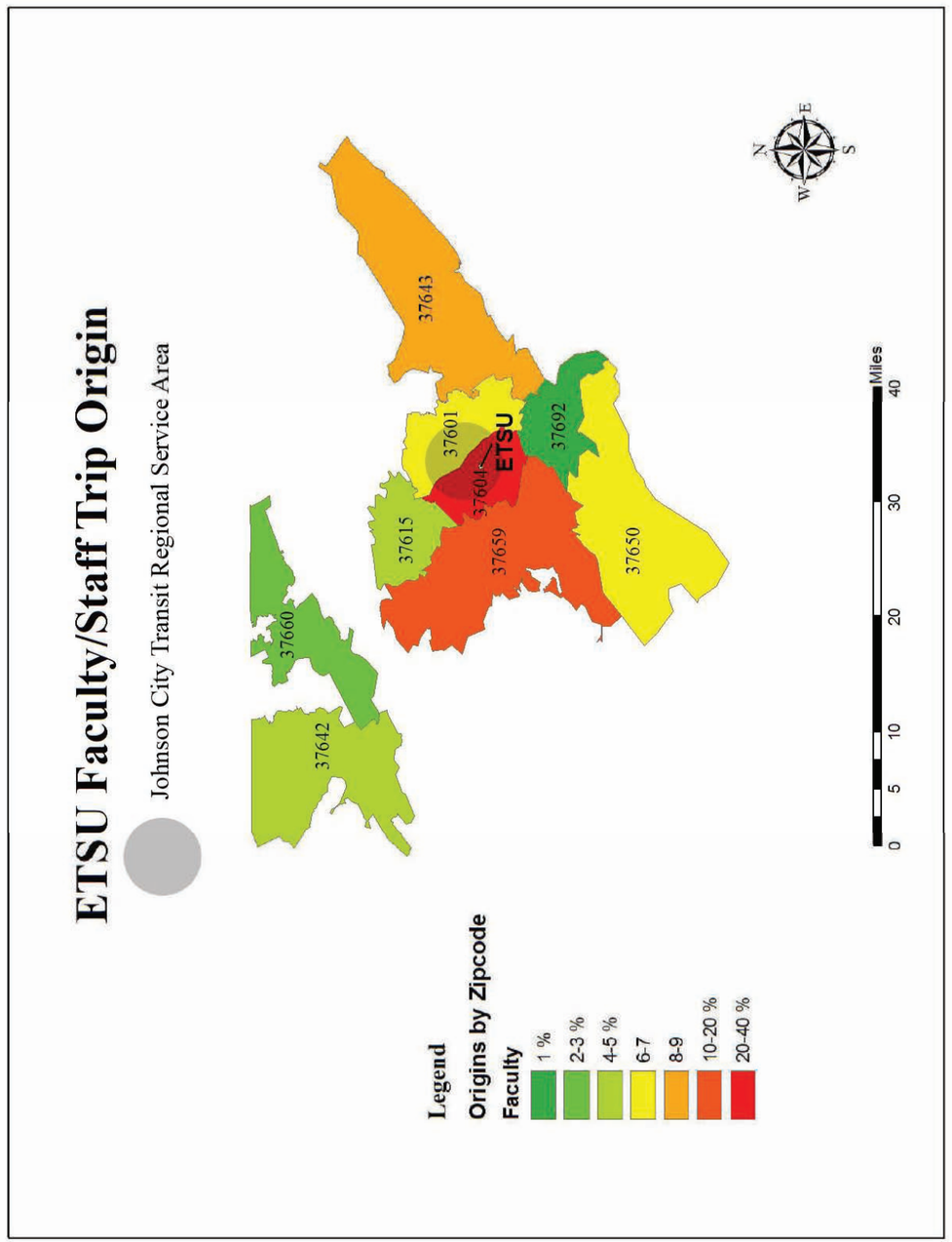


Exhibit D2: **ETSU Faculty/Staff Trip Origin**

E. Stakeholder Interviews

In addition to the parking occupancy and turnover surveys and pedestrian questionnaires, interviews were conducted with key campus stakeholders over the course of two days. Representative groups included the Dean's Group, Faculty Senate, Staff Senate, Student government, Johnson City Transit, the University School, and personnel from the Housing, Athletics, Disability Services, and Commuting Student Services Departments. Interviews were open ended in terms of the issues that were discussed. Unlike the surveys and questionnaires, however; the purpose of the interviews was to capture perspective and insight. The following paraphrases the comments that were received:

- *There is enough parking overall but it's not in the right locations.*
- *University School student pick-up and drop-off is causing significant traffic problems.*
- *Faculty and staff are willing to consider a parking space allocation/assignment system that is based on variable fees.*
- *Not enough enforcement officers.*
- *Prohibiting freshmen residents from having a car on campus would really hurt enrollment*
- *This is a "commuter campus"*
- *ADA spaces by Culp Center and Library are not in compliance with design requirements*
- *The main JCT transit stop is off campus by McDonalds.*
- *It is very difficult to drive a vehicle from one side of campus to another.*
- *Students don't pay enough for parking.*
- *Visitor parking is so bad that some event planners stopped scheduling events on campus.*
- *Carpool program is small but steady. There are some 350 students in the program.*
- *Parking is a growing challenge at night. Some parking rules, regulations, and enforcement should continue past 5 PM.*
- *An evening campus escort program does exist but it's largely unknown.*
- *Employees stay parked in the metered spaces behind Culp Center by feeding the meters.*
- *Open parking is being "taken over" for Governor's Hall dorm students.*
- *Employees don't pay much for parking.*
- *It's impossible to move from one side of campus to another to attend meetings.*
- *We support eliminating core parking lots and building peripheral parking garages*
- *Some faculty and staff would be willing to pay $300 per year for convenient parking.*
- *Though students rejected a $300 per semester increase in tuition for an athletic fee they might support a $50 per semester increase for parking if more spaces are provided.*

As a result of this input, it appears that all user groups recognize that parking is a problem and that increased fees for parking will be required but that any increase would only be acceptable if there is measurable improvement in the system.

F. Population-based Parking Demand Estimates

Occupancy counts, questionnaires, and stakeholder interviews do not reveal the true demand for parking by user group and they cannot capture the number of students who may be parking in faculty, staff, or visitor spaces or vice versa. Therefore, some mechanism was required that could be used to estimate current and future parking demand by user group. Furthermore, the growth on a campus is most accurately defined by population data, i.e., student enrollment and staffing projections. To this end the following section summarizes the extensive population data that ETSU's Office of Institutional Research had made available and how that data was used to estimate peak hour parking demand by user group. While this section focuses on overall student, faculty, and staff volumes, later sections of this study will examine population volumes by location/building in an effort to better understand where the need for additional parking is the greatest. Also note that the analysis focuses on a peak Tuesday condition. It has already been established that Tuesday, as opposed to Wednesday, represents the peak or worse case condition. Therefore, all population data is based on Tuesday enrollment and class scheduling.

The first column of Table 7 summarizes the fall 2007 full-time and part-time faculty and staff, commuting student enrollment, and resident housing volumes. The source data for this information is included in Appendix Table B (enrollment), C (student housing), and D (employees). Table 7 also includes adjustments to those fall figures that reflect the volume of individuals that are on campus on a typical Tuesday and the volume that are present at 10 AM, the peak period for parking activity.
For example, there are 1,131 full-time staff. Not all are on campus on a particular Tuesday and not all of that Tuesday population is on campus at 10 AM. Some may be on sick leave, vacation, traveling on business, or have an off-site meeting on that day or that particular hour. It is estimated that of the total fall staff population only 960 are on campus at 10 AM on any given Tuesday. Overall, it is also estimated that during the peak hour of a peak day there are 1,520 full and part-time faculty and staff, 3,300 commuting students, and 2,274 resident students on campus. The resident number includes those students who live off of the core campus in Pirates Cove and Buccaneer's Ridge. Note that the population data does not include visitors, vendors, or contractors. Estimates for these "other" parkers will be tabulated separately.

Table 7:
Annual, Estimated Average Daily (Tuesday), and Peak Period Campus Population Data

Population Group	Total Fall 2007 (1)	Estimated Average Daily	Present During Peak Period
Full-Time Employees			
Full-Time Faculty (2)	574	400	360
Full-Time Staff (3)	1,131	1,070	960
Full-Time Employee Subtotal	**1,705**	**1,470**	**1,320**
Non-Full Time Employees (4)			
Adjunct Faculty	277	110	100
Hourly Staff/Technicians	258	100	90
Seasonal/Monthly	40	16	10
Non-Full Time Subtotal	**535**	**226**	**200**
Students			
Commuting Students (5)	9,882	5,930	3,300
Resident Students	2,274	2,274	2,274
Student Subtotal	**12,156**	**8,204**	**5,574**

(1) Source: Office of Institutional Research
(3) Presumes that 30% of all full-time faculty not on campus due to vacation, sick leave, off-campus business, or class schedules
(3) Presumes that 5% of all full-time staff not on campus due to vacation, sick leave, or off-campus business
(4) Presumes that 60% of all non-full time faculty/staff not on campus due to vacation, sick leave, off-campus business, or work schedule.
(5) Presumes that 40% of all commuting students not on campus due to illness or work schedule. Number of commuting students on campus during peak Tuesday period is based on enrollment data.

The auto utilization and persons per auto findings from the pedestrian questionnaires are then applied to the peak period population estimates to calculate the peak weekday parking demand by user group (see Table 8). The results suggest that the total peak demand for parking equals 6,030, with the largest use group being commuting students (2,940 parked vehicles).

Table 8:
Population-based Estimate of Peak Weekday Parking Demand

Population Group	Present During Peak Period	Auto Utilization Percentages (1)	Persons per Auto Ratios (1)	Estimate of Parked Vehicles during Peak Period
Full-Time Employees				
Full-Time Faculty	380	96%	1.02	360
Full-Time Staff	970	96%	1.05	890
Full-Time Employee Subtotal	**1,350**	---	---	**1,250**
Non-Full Time Employees				
Adjunct Faculty	130	96%	1.02	120
Hourly Staff/Technicians	120	96%	1.05	110
Seasonal/Monthly	20	96%	1.05	20
Non-Full Time Subtotal	**270**	---	---	**250**
Students				
Commuting Students	3,300	98%	1.10	2,940
Resident Students	2,274	70%	1.00	1,590
Student Subtotal	**5,574**	---	---	**4,530**
Total Faculty, Staff & Students	**7,194**	---	---	**6,030**

(1) Findings from the point of access questionnaires

To determine the validity of these figures, population-based demand estimates were compared to the utilization/observation based estimates. Table 9 compares these figures. It would appear that the population-based figure overestimates true parking demand by 72 spaces. However, this may capture the fact that some faculty, staff, and students are not parking in ETSU provided lots. As such, the population-based estimates are deemed sufficiently accurate and the peak parking demand ratios summarized on Table 10 will be used to model the current parking demand by building/location to identify the areas on campus where the demand is greatest.

Table 9

Comparison of Utilization-based to Population-based Peak Parking Demand Estimates

User Group	Tuesday Peak Estimates Utilization-based	Population-based	Diviation
Faculty/Staff	1,496	1,510	14
Resident/Commuting Student	4,472	4,530	58
Service Vehicle (1)	16	16	n.c.
Other (1)	53	53	n.c.
Total	**6,037**	**6,109**	**72**

(1) As population-based estimates for service vehicle and other user groups are unavailable the analysis simply carries forward the utilization based estimates (nc = not calculated)

Table 10:

Peak Weekday Parking Demand Ratios for each ETSU User Group

User Group	Peak Parking Demand Ratio
Full-time Faculty	0.59
Full-time Staff	0.81
Adjunct Faculty	0.43
Hourly/Seasonal Staff	0.44
Commuting Students	0.32
Resident Student	0.60
Service Vehicle	n.a.
Other (Visitors, Vendors, etc.)	n.a.

Exhibit E illustrates summarizes the peak weekday population that is on-campus by building, noting in pie charts and scale the combination and volume of faculty/staff, resident student, and commuting student demand. This analysis is valuable as it identifies where people would like to park presuming there is enough parking around their destination. The exhibit and analysis may be a bit misleading as the volume of people that are out of class but visiting Culp Center, Sherrod Library, and Basler Center are underreported. While there are large population/parking demand generators throughout the campus, there is a significant concentration around the Bell Tower (Brown Hall, Nicks Hall, and Rodgers-Stout Hall). This concentration is even more

significant when the parking activity associated with Culp Center and Sherrod Library is considered.

G. Projected Enrollment, Staffing, and Future Parking Demand

The number of future resident students as illustrated on Table 11 is based on the Master Plan projection of dormitory construction and redevelopment. As the Campus Master Plan did not have information regarding future commuting student volumes, past enrollment was used to project future commuting students (see Table 12). Between the fall of 2002 and 2006 commuter student enrollment has grown 2.3%. For purposes of this study a more conservative rate of 2.0% was used for future commuting student projections. The number of future faculty and staff was also not available so a more conservative rate of 1% annual growth rate was applied.

Table 11:

Schedule of Dormitory Demolition and Construction per 2006 Master Plan Update

Building Name/Location	Fall 07	Fall 08	Fall 09	Fall 10	Fall 11
Mack Davis A, B, C	242	242	242	242	242
Cooper	170				
Carter	0	143	143	143	143
McCord	172				
Stone	84				
Panhellenic	66				
Lucille Clement	463	463	463	463	463
Luntsford	182	182	182	182	182
Powell	86	86	86	86	
West	88	88	88	88	
Nell Dossett	122	122	122	122	
Governors Hall	542	542	542	542	542
New Student Apts. Phase I		110	110	110	110
New Student Apts. Phase II			270	270	270
Married Housing F & G	76	76	76	76	
Married Housing A, B, C, D, & E	40	40	40	40	
West Campus Hall					300
Total Beds	**2,333**	**2,094**	**2,364**	**2,364**	**2,252**

Denotes housing not yet built or slated for removal.

Table 12:

Past Fall Commuting Student Enrollment and Average Annual Growth

Student Group	2002	2003	2004	2005	2006	Avg. Annual Growth Rate
Undergraduates						
Freshmen (2)	2,600	2,622	2,544	2,659	2,842	2.3%
Sophomores	1,761	1,820	1,862	1,773	1,997	3.4%
Juniors	1,884	1,900	1,941	1,978	1,972	1.2%
Seniors	2,753	2,879	3,008	3,076	3,084	3.0%
Undergrad Specials	338	329	317	284	309	-2.1%
Undergrade Subtotal	**9,336**	**9,550**	**9,672**	**9,770**	**10,204**	**2.3%**
Graduates (3)	**1,795**	**1,845**	**1,963**	**1,886**	**1,952**	**2.2%**
Total Enrollment	**11,131**	**11,395**	**11,635**	**11,656**	**12,156**	**2.3%**

(1) Source: ETSU Fact Book - includes full-time and part-time students
(2) Freshmen include first-time freshmen and other freshmen.
(3) Graduates include graduate specials, masters, education specialists, and doctoral.

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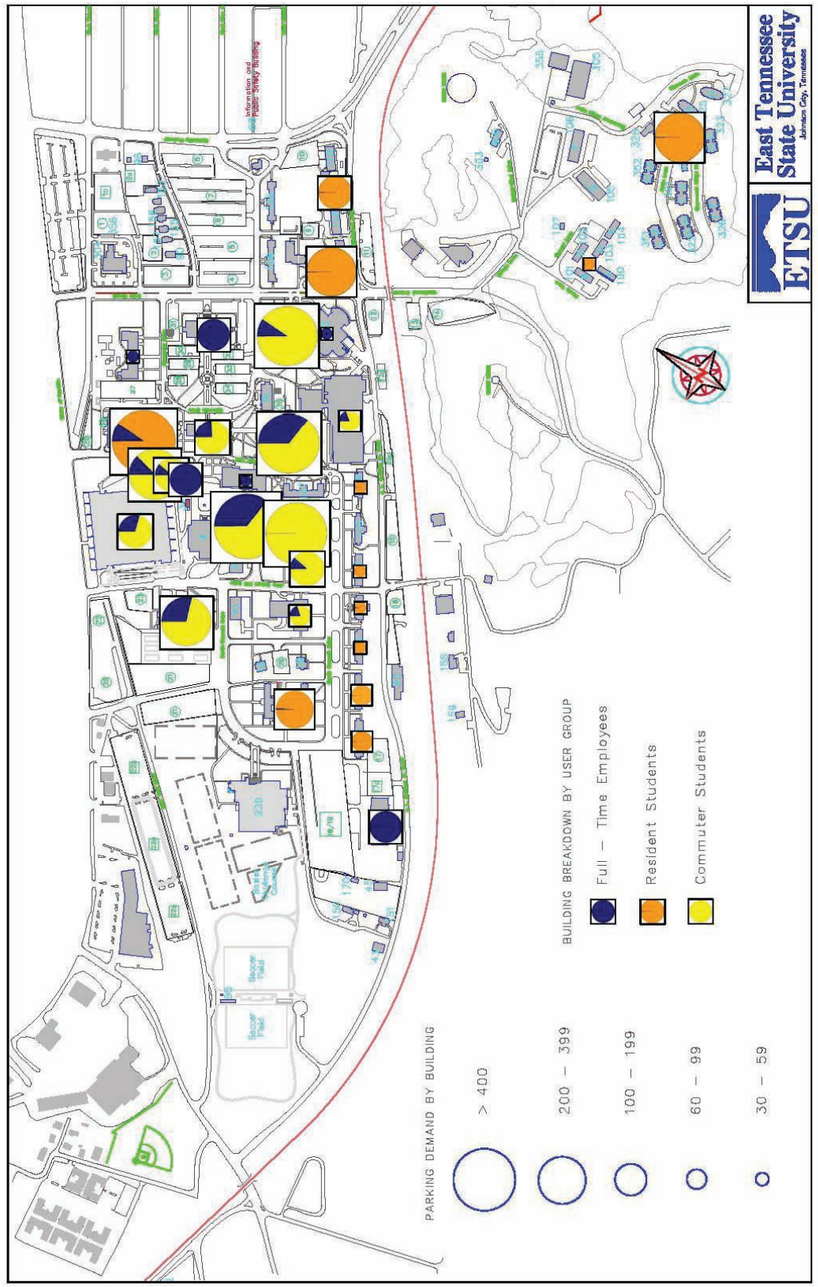

Exhibit E: **Volume of Faculty/Staff, Resident Student, and Commuting Student Demand by Building**

Table 13 calculates the peak parking demand by user group through the fall of 2016. With a rebounding on dormitory units between 2008 and 2009 parking demand will grow from 6,109 spaces currently to 6,325. With a steady increase in commuting student enrollment, that parking demand will increase from 3,170 currently to 3,788 by the fall of 2016 (or by 618 spaces). Overall, parking demand at ETSU will grow by 758 spaces to 6,867. That figure does not include the need to provide some operational flexibility (i.e., practical capacity).

Table 13:
Estimate of Future Peak Parking Demand by User Group

User Group	Population Based Peak Demand (2007)	Annual Growth Rate	2008	2009	2010	2011	2012	2013	2014	2015	2016
Faculty	460	1.0%	465	470	475	480	485	490	495	500	505
Staff	1,050	1.0%	1,061	1,072	1,083	1,094	1,105	1,116	1,127	1,138	1,149
Commuting Students	3,170	2.0%	3,233	3,298	3,364	3,431	3,500	3,570	3,641	3,714	3,788
Resident Student (1)	1,360	n.a.	1,252	1,414	1,414	1,347	1,347	1,347	1,347	1,347	1,347
Service Vehicle	16	1.0%	16	16	16	16	16	16	16	16	16
Other (2)	53	2.0%	54	55	56	57	58	59	60	61	62
Total	**6,109**	**---**	**6,081**	**6,325**	**6,408**	**6,425**	**6,511**	**6,598**	**6,686**	**6,776**	**6,867**
Net Increase			***-28***	***216***	***299***	***316***	***402***	***489***	***577***	***667***	***758***

(1) Increase in resident student parking demand is related to increase in residential units on campus.
(2) Increases in other (visitors, vendors, contractors, etc.) demand is related to growth of commuter student population.

H. Future Parking Supply and Practical Surplus or Deficit

Exhibit F and the figures in Table 14 summarize the impact on the existing parking supply associated with development activity as anticipated by the Master Plan. Three projects in the Master Plan will have an impact on existing parking; Apartment Phase I and II in fall 2008, the Fine Arts Center in fall 2011, and the Basketball/Convocation Center project in fall 2016. The number of existing parking spaces to be displaced and the number of new spaces to be provided have been estimated. Though a number of parking structures are referenced in the Master Plan, this analysis does not make any assumptions regarding the location and capacity of parking structures.

Exhibit F: **2006 Master Plan Update and Impact on Parking**

Table 14:
Master Plan Project, Phasing, Parking to be Displaced and Parking to be Replaced

Master Plan	Phasing	Lots to be Impacted	Parking to be Displaced					Parking to be Replaced	Net Loss
			Faculty/ Staff	Student	Open	Other	Total Displaced		
Apartment Phase I	Fall 2008	Lot 10	8	113	0	0	**121**	**0**	**121**
Apartment Phase II	Fall 2008	none	0	0	0	0	**0**	**0**	**0**
Fine Arts Center	Fall 2011	Lot 2 - 8	221	663	30	0	**914**	**250**	**664**
Basketball/Convocation Complex	Fall 2016	Lot 21	23	513	0	0	**536**	**150**	**386**
	---	---	**252**	**1,289**	**30**	**0**	**1,571**	**400**	**1,171**

With the introduction of Apartment Phase I and II by the fall of 2008 the 121 spaces in Lot 10 will be lost. No new parking is anticipated. By the fall of 2011 Lots 2 through 8 will be lost, impacting 663 student, 221 faculty/staff, and 30 open spaces. It is estimated that as many as 250 replacement spaces will be created. Though the date of construction for the a Basketball/Convocation Center is as yet undefined, the analysis assumes that 536 existing spaces in Lot 21 will be lost with 150 replacement spaces provided. Overall, while it is anticipated that approximately 400 replacement parking spaces would be developed, this number does not offset the 252 faculty/staff, 1,289 student, and 30 open spaces that would be lost. Note that this parking impact analysis does not include the potential loss of parking spaces associated with green space recommendations, most notably at South Dossett Drive (190 student spaces) and the Bell Tower (230 faculty/staff spaces).

Table 15 illustrates the anticipated practical parking capacity between fall of 2008 and fall of 2016. There are two critical periods for the parking supply; fall of 2011 and fall of 2016. In concert with the development of the fine arts center and the basketball/convocation center the practical supply of parking drops from 6,117 to 5,492 in fall 2010 and from 5,492 to 5,148 in fall 2016.

Table 15:
Current and Future Practical Parking Capacity by User Group

User Group	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Faculty/Staff (95%)	1,627	1,620	1,620	1,620	1,457	1,457	1,457	1,457	1,457	1,454
Commuting Students (90%)	3,111	3,040	3,040	3,040	2,723	2,723	2,723	2,723	2,723	2,489
Resident Student (95%)	1,423	1,390	1,390	1,390	1,245	1,245	1,245	1,245	1,245	1,138
Service Vehicle (90%)	44	44	44	44	44	44	44	44	44	44
Other (90%)	23	23	23	23	23	23	23	23	23	23
Total	**6,228**	**6,117**	**6,117**	**6,117**	**5,492**	**5,492**	**5,492**	**5,492**	**5,492**	**5,148**
Net Loss		*-111*	*-111*	*-111*	*-736*	*-736*	*-736*	*-736*	*-736*	*-1,080*

I. Future Practical Surplus or Deficit

Table 16 layers the estimates of future peak parking demand against the anticipated practical capacity of parking spaces once certain impacts associated with the Master Plan have been quantified. In addition to the user group summaries, Table 16 includes both a total and core campus surplus or deficit figures. This reflects the fact that most of the parking spaces in Pirate Cove and Buccaneer Ridge are not designed to service the larger campus' needs. Given the garden apartment layout of parking in these two areas it would be difficult to manage them for faculty, staff, commuter student parking or shuttle use. However, there is a 98 space surface lot at the base of Buccaneer Ridge Drive that could be used for commuter student or core campus resident student parking. It is large enough to be manageable and convenient to current Bucshot shuttle operations. Excluding those less manageable off-campus spaces, ETSU will experience a practical parking deficit of 187 by fall 2008. That deficit will grow to 1,019 spaces by fall 2011. The parking deficit will grow by approximately 90 spaces per year between 2011 and 2015. With the development of the Basketball/Convocation Center this deficit will increase to 1,942 spaces. If certain green space programs proceed, thus eliminating more core surface parking, that deficit could grow by another 420 spaces.

Table 16:
Future Practical Parking Surplus or Deficit by User Group

User Group	Fall 08	Fall 09	Fall 10	Fall 11	Fall 12	Fall 13	Fall 14	Fall 15	Fall 16
Faculty/Staff	94	78	62	-117	-133	-149	-165	-181	-200
Commuting Students	-193	-258	-324	-708	-777	-847	-918	-991	-1,299
Resident Student	138	-24	-24	-102	-102	-102	-102	-102	-209
Service Vehicle	28	28	28	28	28	28	28	28	28
Other	-31	-32	-33	-34	-35	-36	-37	-38	-39
Total	**36**	**-208**	**-291**	**-933**	**-1,019**	**-1,106**	**-1,194**	**-1,284**	**-1,719**
Less off-campus surplus(1)	***-223***	***-223***	***-223***	***-223***	***-223***	***-223***	***-223***	***-223***	***-223***
Core campus Deficit	**-187**	**-431**	**-514**	**-1,156**	**-1,242**	**-1,329**	**-1,417**	**-1,507**	**-1,942**

(1) Currently, there are some 321 unoccupied parking spaces off-campus. However, only 98 of those spaces (in large lot in front of Building F) would be useful in meeting core campus needs

This summary greatly over-simplifies the parking stress that exists and will exist in the future. Commuting students, who already experience a parking deficit, would be most significantly impacted. By fall 2011, commuting students will have a shortfall of 708 spaces. That deficit will grow by approximately 70 spaces per year to nearly 1,300 spaces by fall of 2016.

J. Impact of Off-Campus Residential Development

Until this time the analysis has assessed the growth in commuter student enrollment, on-campus housing, and staffing. Some of the growth associated with commuter student enrollment, which is the largest single generator of parking demand, may be satisfied in a less than traditional way. As noted in the zip code analysis, commuting students are distributed over a large area. Regardless of the value of Johnson City Transit services, the vast majority of these commuters cannot take advantage of the system. Therefore, commuter students' auto use percentage will remain in the mid to upper 90 percentile. The development of more student-based market housing within close proximity to ETSU would change this percentage.

ETSU and Milestone Development are committed to creation of The University Edge Apartments, a 198-unit apartment complex at the intersection of W. State of Franklin Road., Watergate Avenue., and Love Street. Just six tenths of a mile from the core of the campus, this project would house 570 students in a combination of 2, 3, and 4-bedroom units and include 509 parking spaces on site. The complex would be served by a dedicated shuttle service (presumably through Johnson City Transit), and have a well developed bike and pedestrian pathway to the campus. The development anticipates that the apartment complex would capture those existing/future commuting students who live farther off-campus but would prefer the campus experience of living close by. The development is to be completed and ready for students by fall 2009.

This project will have an immediate and significant impact on parking demand on the campus. These 570 commuting students would have generated a need for 182 parking spaces based on the 0.32 students to peak parking demand ratio. Therefore, with the completion of the project, the campus core practical deficits referenced on Table 16 could drop from 431 and 514 in fall 2009 and 2010 to 249 and 332 respectively. These practical deficits would be much easier to manage. However, there is some debate if such a reduction would materialize and the market demographics of the tenants might not, in fact, have an effect on residential distribution patterns (i.e., living at home with mom and dad) or auto utilization. Regardless of the impact that The University Edge Apartments will have, the projected parking deficit that will materialize by fall 2010 would require the construction of a parking structure.

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IV REVIEW OF CURRENT OPERATIONS

A. Current Parking & Shuttle Operations

As an in-depth examination of current parking and shuttle management polices and procedures was completed in December 2006, this section simply highlights the key elements of ETSU's current operations.

As noted previously, parking spaces on campus are allocated to three main user groups: faculty/staff (marked dark blue), students (yellow), and visitors (light blue). With the exception of spaces reserved for resident advisors, there is no differentiation between commuter spaces or resident spaces. Whether they bring a vehicle to campus or not, all ETSU students pay as part of their tuition a $15 per semester fee that is allocated to the campus parking program. Faculty/staff pay $50 per year. Open spaces are available to anyone with a valid parking permit. As of October, 12,856 student permits and 1,589 faculty/staff permits have been issued for the 2007/08 academic year. With the exception of the general faculty/staff and student lot designations, permit holders were not assigned or dedicated to specific lots but were allowed to hunt for the most convenient space. While this makes the initial distribution of parking permits much easier, it has a negative impact on day to day traffic and circulation.

Visitors are instructed to obtain a temporary visitor permit from the Department of Public Safety, which is located off University Parkway at Stout Drive. Daytime event patrons are also required to obtain a visitor pass.

ETSU, through Adult, Commuter & Transfer Services (A.C.T.S.), does support a car and vanpool program. Commuting students who are registered for classes and who complete an application form will receive at no charge a parking permit. The permit allows them to park in either Lot 4, across from Dossett Hall, or in Lot 21, next to the tennis courts. However, this program seems to apply only to students. A.C.T.S. states that the program has 350 students, equating to 3 to 4 students per vehicle.

ETSU's parking and shuttle operations are not centralized. The planning, financing, maintenance, permitting, revenue collection, and enforcement of parking and shuttle services fall under various departments, including but not limited to public safety, physical plant, admissions, and A.C.T.S.. The University has formed a campus parking committee and faculty, staff, and administrators to propose changes to current parking policies.

Two parking enforcement officers are managed through the Department of Public Safety and utilize handheld parking citation issuance devices. Most parking restrictions are lifted after 5 PM. As referenced in the December 2006 study, 27% of the tickets issued are for illegal parking in faculty/staff reserved spaces.

The University operates a free shuttle system for students, faculty, staff, and visitors, linking parking lots located on the perimeter of the campus, including off-campus housing at Evergreen Terrance and Buccaneer Ridge, with main academic and administration buildings. Operation hours are scheduled during peak class periods. This intra-campus shuttle service is contracted through Johnson City Transit at a current cost of $36,000 per year. The average daily ridership for the Bucshot's' Gold and Blue routes is approximately 300 riders. Exhibit G illustrates the routing for these two services. The campus is also served by JCT's fix route system. This system is also free of charge to ETSU faculty, staff, and students and has six routes operating within a six mile radius of the University. JCT does not record ETSU ridership nor does ETSU provide funding for this service.

There are no space designations for on-campus special events at the Culp Center, the Memorial Center, or any of the other event venues. Given the limited number of parking spaces in and around the Culp Center and its conference center, the schedule of non-university oriented events at this location must occur during non-peak hours.

B. Current Parking Rates and Fines for Violations

The 2006 study also examined current parking rates and the fine structure for parking violations so this section will be brief. As noted earlier, faculty and staff pay $50 per year and are permitted to park in dark blue faculty/staff lots or in open facilities. The University does not presently offer a pre-tax cafeteria plan for employees who wish to lessen the impact on parking fees. All students pay a $42 access fee per semester of which $15 is allocated to the campus parking program.

ETSU's fines for parking violations are structured as follows:

$10.00 fines – Wrong permit for lot/zone
Improper displace of permit
Parked in a malfunctioning or expired meter
Time loading zone violations
Parked outside of the stall lines
$20.00 fines - No valid permit or non valid license plate
Parking in a service vehicle stall
Parked in a carpool stall
Parked in a reserved parking stall/area
$35.00 fines - Failure to register vehicle/false registration information
$50.00 fines - Parked on sidewalk, safety zone, obstructing
Chronic violator (repeat violations)
$75.00 fine - No parking area, red curb/fir lane
$100.00 fines -Altered, stolen, counterfeit permit, unauthorized use
Parked in a Disable parking stall

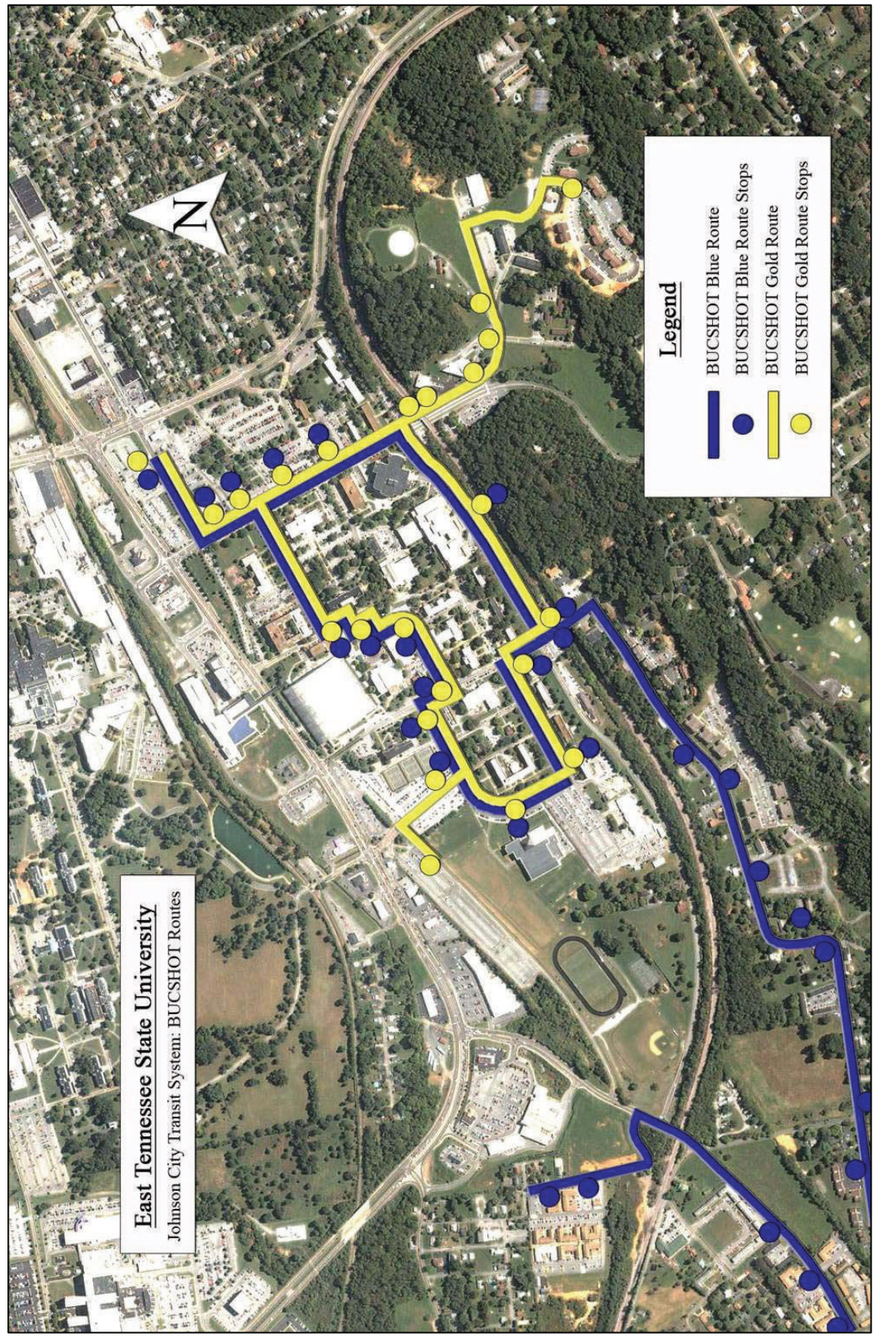

Exhibit G: **Johnson City Transit System – BUCSHOT Routes**

It should be noted that the December 2006 study also examined parking rates at some peer institutions, including East Kentucky University, University of Arkansas at Little Rock, and Appalachian State University. Appendix Exhibit E revisits this information. However, the parking rates that are appropriate for ETSU should not be based on comparisons to other universities but on the true cost to ETSU to provide effective and efficient parking and transportation services.

C. Current Parking Enforcement & Appeals

Two Parking Enforcement Officers (PEO's) are employed by the Department of Public Safety and are assigned to the campus. These PEO's are not sworn officers. PEO's utilize handheld parking ticket issuance devices, which are linked to a centralized management software system. The 2006 study noted that there is currently relatively low enforcement activity based on the number of citations issued and based on input received during interviews. Though no detailed evaluation of citations was performed, this study supports the previous assessment based simply on field observations conducted during the course of this study. While the PEO's were observed issuing parking citations during the course of the September parking surveys there were numerous observations of violations that were not ticketed, including parking outside of stalls, failure to displace a parking permit or visitor pass, and illegal parking in a handicapped space. For example, a motorcycle was parked in a handicapped space in front of Gilbreath Hall for nearly two hours without receiving a ticket.

Any person who receives a parking citation can appeal that citation by completing and submitting an appeals form at the Business Office. The appeal is then reviewed by the Parking, Traffic and Security Committee, and if approved is forwarded to the Traffic Appeals Court for disposition. The Parking, Traffic and Security Committee consist of four faculty, four staff, and four student members. Faculty and staff members serve a term of three years. The Committee meets approximately once a month.

D. Current Parking Revenues and Costs

Currently (October 2007), ETSU has 12,856 student permits and 1,589 faculty/staff permits in circulation. That compares to 13,153 student and 1,796 faculty/staff permits issued for the whole of the 2006/2007 academic year. Being in circulation suggests that the University does not maintain an exact count of permits issued or track those permits that are no longer valid. For the past academic calendar year, permit revenue resulting from student sales was $387,683 and $76,981 from faculty and staff. The fees from parking fines during this same period equaled $299,776. In total, the revenue from parking operations equaled $764,440, which equals to $113 per space per year.

To date, ETSU does not formally account for the financial cost to plan, development, maintain, and operate its parking system. As noted previously, various departments are involved in different aspects of parking functions and these departments do not track their parking related expenses. This is not an uncommon practice for universities that have not

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created a central parking or transportation department. As a result, and for purposes of this analysis, some estimated costs have been calculated. However, with the creation of an auxiliary department that will be responsible for the planning, management, and financing of parking and transportation related services these costs must be quantified. An upcoming section of the report will present the debt service and operating costs for the existing system and all recommended improvements.

V - PHYSICAL AND OPERATIONAL RECOMMENDATIONS

The previous sections of this report identified the current stress on ETSU's parking system and the need for additional parking spaces in the future. They also reviewed the University's current parking and shuttle operations, noting some deficiency's from a parking industry perspective. This section of the report will address the physical and operational improvements that should be made to meet the growing parking needs and expectations of the campus' faculty, staff, students, and visitors. Improvements to be presented in this section include:

- An opportunity to increase the capacity of existing parking lots
- Location, capacity, and cost to develop peripheral surface lots
- Location, capacity, and cost to develop parking structures
- A review of handicapped accessible (ADA) space requirements
- Route, schedule, and cost of an intra-campus "express" shuttle
- Staff, role, and responsibility of a ETSU Parking & Transportation Services Department

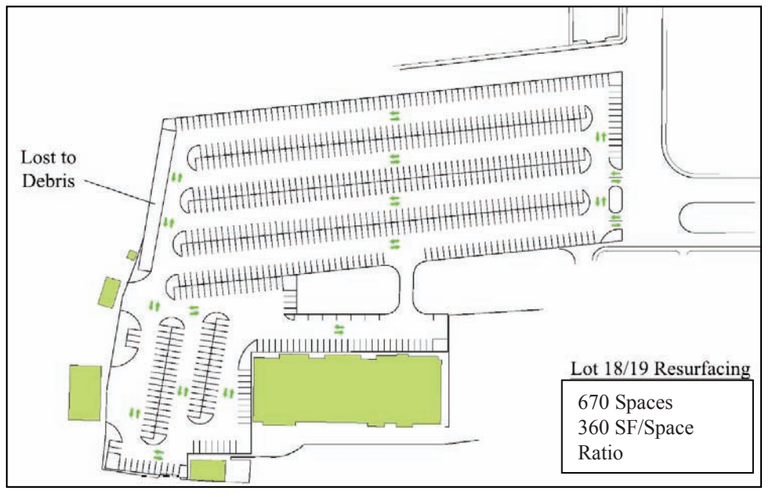
Given that the parking and shuttle services must function within the context of an auxiliary service, where revenues must equate operating expenses, this section of the report will also combine the capital and operating costs of all of previous recommendations into a financial model. The key to that model will be the development of a fair and effective parking space assignment and allocation strategy and the fee structure required to support the parking and shuttle program.

A. Opportunity to Increase Capacity of Existing Lots

With few exceptions, the current campus parking system consists of a number of small to medium sized surface lots and curbside spaces. As a result,, there is little opportunity to increase the number of existing spaces through re-striping. However, there are four lots of significant scale that merited a more detailed examination; Lot 1 ("Foundry"), Lot 22a ("Airstrip"), Lot 21 (near the Tennis Courts), and Lot 18/19 (by the Bond Building). An initial redesign analysis suggested that Lots 1, 22a, and 21 had already maximized their capacity. Though alternative parking stall and drive aisle options could be explored, none would succeed in increasing parking capacity. However, Lot 18/19, which by its very code appears to be two separate lots united by layout and adjacency, did possess some capacity potential. As noted on the Exhibit H1, Lot 18/19 has at present 619 spaces. Accounting for the fact that the Facility Services stores fleet vehicles, equipment, and material on the western edge of this lot, a redesign (see Exhibit H2) could achieve a space count of 670 spaces, an increase of 51 spaces. Compared to the cost of a new surface or structured parking facility, the cost differential to remove paint and re-stripe this lot would be insignificant.

Exhibit H1
Existing Lot 18/19

Exhibit H2
Redesigned Lot 18/19



B. Location, Capacity, and Cost of Peripheral Surface Lots

Knowing the immediate pressure for new parking spaces, the University had prior to this study identified two locations that could potentially support the development of new surface parking facilities. The maps on Exhibits I1, I2 and J1, J2 identify respectively the location and relative footprint of a Greenwood/Jack Vest Drive (Site A) and Southwest Avenue/Village Lane (Site B) surface lot. Based on a preliminary layout, its is anticipated that 480 spaces can be developed on Site A at a cost of $2 million while the Site B lot could accommodate as many as 320 spaces at a cost of $1.54 million. Presuming the development of a parking structure on the campus in FY2010 as has been discussed by ETSU administrators, it is unlikely that the University will require two new parking lots in the immediate future. Based on its relative proximity to Sherrod Library, and Governor's Hall, it is recommended that a parking lot at Site B be developed by fall of 2009.

Exhibit I1 – **Site A Surface Lot Location/Footprint**

Exhibit I2 – **Site A Parking Layout**

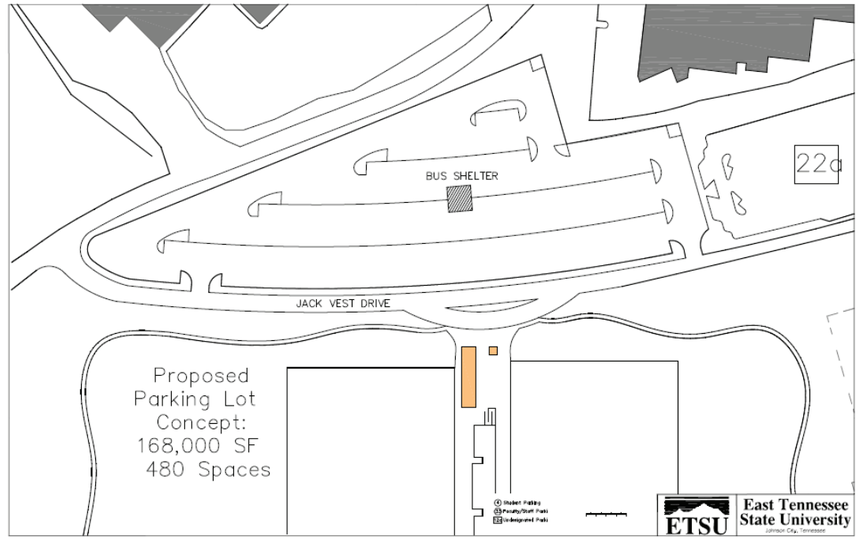


Exhibit J1 – **Site B Surface Lot Location/Footprint**

Exhibit J1 – **Site B Surface Lot Location/Footprint**

Exhibit J2 – **Site B Parking Layout**

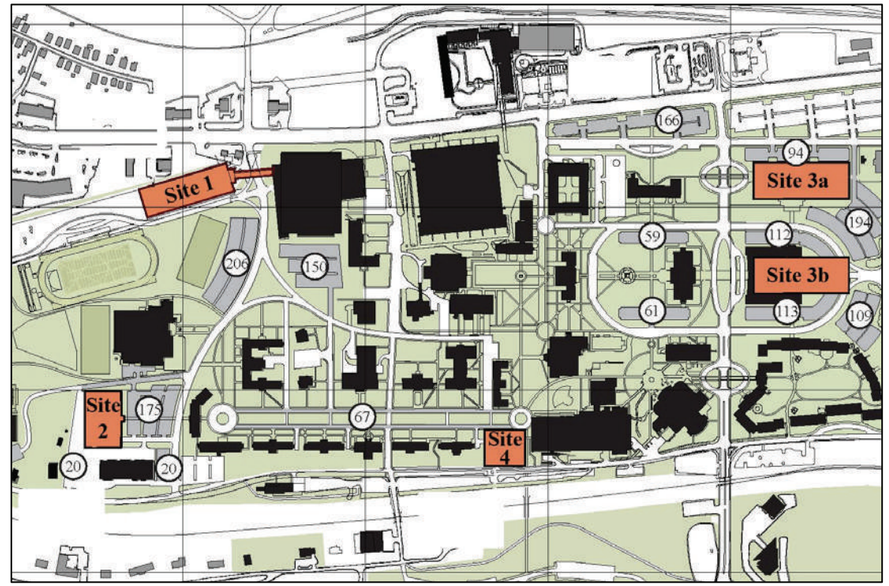
C. Location, Capacity, and Cost of Parking Structures

The recently completed campus master plan identifies four sites for structured parking:

- Site 1 – Lot 22a ("Airstrip")
- Site 2 – Lot 18/19
- Site 3a - Block bound by Maple St., Lake St., Walnut St., and University Pkwy
- Site 4 – Stone Hall

The University wished to examine another opportunity related to the site of a proposed Performing Arts Center in the block bound by Stout Drive., Lake Street, Maple Street, and University Parkway, referred here as Site 3b. Exhibit K illustrates the location and development footprint for these five options.

Exhibit K
ETSU Master Plan / Structured Parking Opportunities



A parking functional design or concept was developed for each site noting the location; vehicular entry/exit points, ramping, directional flow, and parking count and are located in the Appendix (Exhibit F1 through F5). Additionally, construction cost estimates were developed based on the total building area and current standards for per square foot construction costs ($45 per square foot). Table 17 summarizes the space count, design efficiency, total and per space construction cost for each facility, including the two surface lot concepts. Note that the number of existing parking spaces that would be displaced by new construction was included in the calculations.

Table 17
Structured Parking Capacity and Construction Cost Comparisons

	Garage Concepts			Surface Concepts	
	Site 1	**Site 2**	**Site 3a (1)**	**Site 3b (1)**	**Site 4**	**Site A**	**Site B**
Number of Spaces to be Developed	995	425	1175	1175	445	480	320
Number of Spaces to be Displaced	240	150	180	430	0	0	0
Number of Spaces to be Gained	**755**	**275**	**995**	**745**	**445**	**480**	**320**
Total Garage Plate (Sq.ft.)	318,100	144,000	354,300	354,300	168,100	168,000	114,000
Sq.ft. per Space Efficiency	320	339	302	302	378	350	356
Sq.ft. Construction Cost	$45.00	$45.00	$45.00	$45.00	$45.00	$10.00	$10.00
Subtotal Construction Cost	$14,314,500	$6,480,000	$15,943,500	$15,943,500	$7,564,500	$1,680,000	$1,140,000
General Conditions (8%)	$1,145,200	$518,400	$1,275,500	$1,275,500	$605,200	$134,400	$91,200
Profit & Overhead (10%)	$1,546,000	$699,800	$1,721,900	$1,721,900	$817,000	$181,400	$123,100
Total Construction Cost	**$17,005,700**	**$7,698,200**	**$18,940,900**	**$18,940,900**	**$8,986,700**	**$1,995,800**	**$1,354,300**
Construction Cost Per Space	**$17,091**	**$18,113**	**$16,120**	**$16,120**	**$20,195**	**$4,158**	**$4,232**
Cost per Space Gained	***$22,524***	***$27,993***	***$19,036***	***$25,424***	***$20,195***	***$4,158***	***$4,232***

(1) Per Master Plan illustration number of spaces to be displaced includes 200 surface spaces to be replaced.

In reference to the estimate of future parking deficits (Table 16) and the location of current parking demand by building (Exhibit E) it is recommended that ETSU develop a parking structure on Site 3A by the year 2010 to address both the anticipated parking shortfall and to meet access goals of the to be adjacent Performing Arts Center. Beyond 2010, it is recommended that a second structure, when required, be developed on Site 4 given its adjacency to the Culp Center (a large parking demand generator) and its proximity to core residential and academic functions. For purposes of the financial model, a 2016 construction schedule has been established or Site 4.

D. ADA Space Compliance

The determination of ADA space compliance examines parking from multiple perspectives, including number, location, design, and accessibility. Though there are statistical measures to determine if a university has provided the legally required number of handicapped accessible parking spaces, a more meaningful determination of need and compliance is derived from a discussion with the campus ADA Coordinator and a tour of the campus. It is understood that those with disabilities can park in any available space. Considering this, the ADA Coordinator stated that there are a sufficient number of spaces for lift/transfer vehicles. However, the ADA Coordinator also stated that the volume of individuals with less significant disabilities is growing; consuming spaces originally used by those with more sever disabilities.

From a statistical standpoint, and using a strict reading of the requirements, the number of accessible parking spaces required shall be calculated separately for each parking facility. Table 18 presents the required minimum number of accessible spaces from the Knoxville County, Tennessee legislation. Note that the number of van-accessible and wide access aisle spaces is also referenced. Given that ETSU has 10 different on-street parking facilities/areas and 52 surface lots, and presuming that each and every lot must have an accessible parking space, the Table suggests that the campus must have 230 accessible spaces. At present, the campus has 143.

Table 18
Accessible Parking Space Requirements per Facility Size

Total Number of Parking Spaces Provided (per lot)	Total Minimum Number of Accessible Parking Spaces (60" & 96" aisles)	Van-Accessible Parking Spaces with min. 96" wide access aisle	Accessible Parking Spaces with min. 60" wide access aisle
1 to 25	**1**	1	0
26 to 50	**2**	1	1
51 to 75	**3**	1	2
76 to 100	**4**	1	3
101 to 150	**5**	1	4
151 to 200	**6**	1	5
201 to 300	**7**	1	6
301 to 400	**8**	1	7
401 to 500	**9**	2	7
501 to 550	**11**	2	9
551--600	**12**	2	10
601--650	**13**	2	11
651--700	**14**	2	12
701--750	**15**	2	13
751--800	**16**	2	14
801--850	**17**	3	14
851--900	**18**	3	15
901--950	**19**	3	16
951--1000	**20**	3	17
1001--1100	**21**	3	18
1101--1200	**22**	3	19
1201--1300	**23**	3	20
1301--1400	**24**	3	21
1401--1500	**25**	4	21

However, the campus ADA Coordinator did not state that there was a significant shortage of accessible spaces as would be suggested by an 87-space difference between the spaces required (230) and the spaces provided (143). Therefore, it may be unnecessary to create an additional 87 accessible and van accessible spaces. The true need for accessible and van-accessible parking space lies in the number of ADA accessible permits that are approved and submitted to Public Safety for review. The University's current approach to permitting handicapped individuals to park in any available and legal space may be sufficient in this regard. It is recommended, however, that an ETSU parking and transportation administrator work continuously with the State and campus ADA coordinators to monitor and update accessibility requirements, including increasing the number and type of spaces, their location, and enforcement of the parking regulations.

E. Route, Schedule, and Cost of an Intra-Campus "Express" Shuttle

Given the construction of a parking lot on Village Lane near the apartments at Pirate Cove (Site B), the relative remoteness of existing Lot 22a, and the increased importance of distributing parking demand throughout the campus, it is recommended that ETSU develop an intra-campus shuttle to augment Johnson City Transit's existing Bucshot service. It is accepted that the Bucshot service is quite valuable particularly when considering its current low cost ($36,000 year). However, this service is ineffective in servicing individuals who are required to park in peripheral facilities given the shuttles' lengthy headways (30 minutes) and number of stops. The relative inconvenience in parking in Lot 22a and a potential lot at Site B must be muted by a shuttle service dedicated to those parkers. Exhibit L illustrates the routing and shuttle stop locations for this "express" service (noted in red) while Table 19 illustrates the operating schedule and cost. This cost ($288,000 in current dollars) is based on industry standards for per hour operation through a third-party lease. It is not based on ETSU's purchase of shuttle vehicles and/or self-operation. It is also based on 18 hours per day of service during a typical weekday and 12 hours of service on a weekend day in an effort to be of service to resident students who are required or choose to park in these more peripheral facilities and require off-hour access to their vehicles. Note that Johnson City Transit may be in a position to offer this service at a somewhat reduced cost.

Exhibit L
Routing and Stops for ETSU "Express" Shuttle

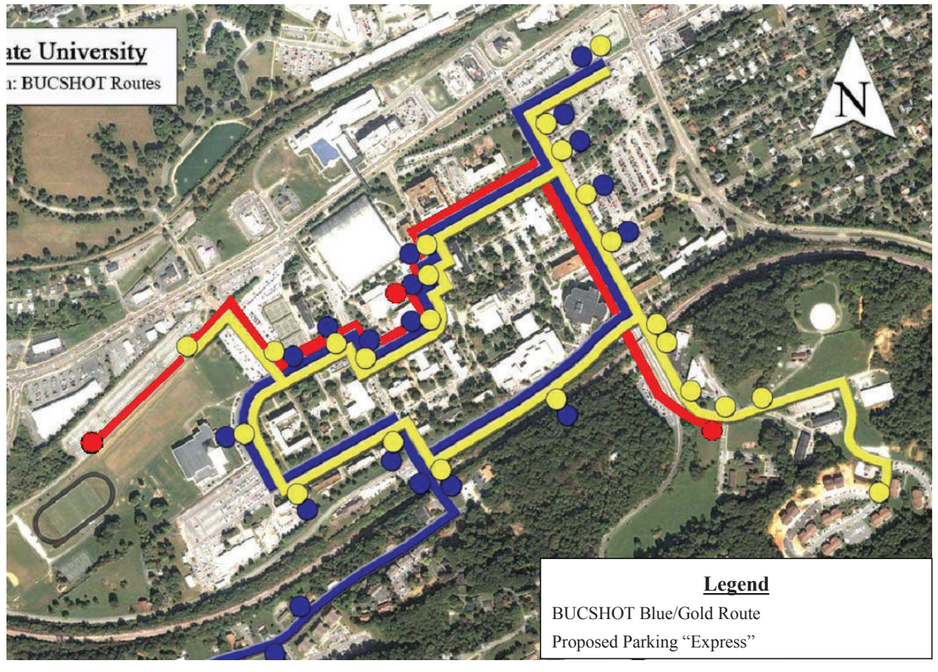


Table 19
Hours of Operation and Cost of ETSU "Express" Shuttle

	Hours of Operation	Number of Buses	Headway in Min.	Circuit Time in Minutes	Operating Cost (2)
Fall, Winter, Spring Schedule (8 mo.)					
Weekday Operations (1)	6,400	2	8 to 10	20 to 22	**$256,000**
Weekend Operations (2)	800	1	16 to 20	20 to 22	**$32,000**
Summer Schedule (4 mo.)					
Weekday Operations	0	0	0	0	**$0**
Weekend Operations	0	0	0	0	**$0**
Total	**7,200**	**---**	**---**	**---**	**$288,000**

Note:
(1) One bus operates 18 hours per day (6 AM to 12 PM) and one bus operates 8 hours (8 AM to 4 PM)
(2) One bus operates 12 hours per day (10 AM to 10 PM).
(3) Assumes a $40 per hour operating cost

F. Creation of a Parking & Transportation Services Department

As referenced earlier, there is no single individual on campus that is solely in charge of managing ETSU's parking resources. Additionally, there is no single individual that can be characterized as a parking professional who maintains the level of operational and planning experience required to deal with the growing parking concerns of the University. A majority of progressive university campus parking systems have a dedicated full-time parking administrator on staff. Without a clear direction of what the goals and objectives of the Parking System are, and the lack of an individual or department to own the responsibility of managing parking resources, the parking system is absent of direction or mission and ongoing attention and the delivery of parking services is fragmented. Parking management should not be a part-time endeavor; it must be a full-time and proactive responsibility. Anticipating this, ETSU has begun the creation of a parking management function as an auxiliary service. This will permit the University to track and record all parking related costs and revenues within a single organization. It would also require the parking management function to be financially self-supporting. Therefore, the cost of current parking/shuttle operations and all related improvements to be discussed in the report must be quantified and compared against current and/or anticipated parking revenues.

The newly created Parking and Transportation Auxiliary Services Department would necessitate the hiring of an experienced parking and shuttle administrator to head up this new office and required support staff. Ideally, the person selected to fill this post would have a minimum of 5 years of progressively responsible parking experience at a similar sized institution. To operate effectively, the Parking/Shuttle Administrator position should have no other responsibilities than parking/shuttle management. Related office staff should consist of a Parking/Shuttle Supervisor and two part-time account clerks to sell permits during the first few weeks of an academic semester. In effect, and only

during peak vehicle registration periods, personnel from other administrative offices would be temporarily shifted to help process the volume of registrations that would be anticipated. An upcoming recommendation regarding a third-party contract for web-based permit issuance will discuss how the cost and management of permit distribution would be transferred from the parking office (and its part-time labor) to a firm that specializes in such service. Field personnel should include three full-time parking enforcement staff members responsible for issuing parking citations. This would centralize parking enforcement under the Parking and Transportation Services Department and allow Public Safety to focus on their core responsibilities.

Typical responsibilities and support personnel requirements of a centralized parking program include (but are not limited to):

- Oversees the daily operation of all divisions of the "Parking System"
- Oversees the daily management and coordination of all "Parking System" activities related to parking and related transportation operations, property maintenance, and financial reporting
- Responsible for the direct oversight of the account clerk and parking enforcement staff
- Responsible for short-term and long-term planning of parking
- Responsible for developing departmental and division budgets and assuring compliance with adopted budget
- Responsible for direct interaction with members of the parking public including faculty, staff, students, vendors, and visitors
- Responsible for the input on parking related construction projects
- Responsible for the timely completion of employee performance reviews

Sample job classifications for the administrator and supervisor position are included in the Appendix (Exhibit G1 and G2).

Operational expenses associated with the staffing and operations, including capital expenses, are presented in Table 20. Salary and benefits are the single most significant annual operating cost and are based on presumed salary of $60,000 per year for the parking administrator, $40,000 per year for the supervisor, and $30,000 per year for full-time parking enforcement officers. Capital costs for fleet vehicles, parking meters, and additional handheld ticket issuance devices are included in the departments' debt service calculations as a separate line item.

Table 20:

Parking & Transportation Services Department Annual Operating Budget

	Annual Expenses	One-Time Capital Expense
Salaries (1)	$220,000	----
Benefits (32%)	$70,400	----
Overtime (5%)	$11,000	----
2 Cushman Style Enforcement Vehicles	----	$50,000
Parking Meters	----	$71,400
Fuel	$10,000	----
Hangtag/Permit Cost	$20,000	----
Handheld Ticket Issuance System	----	$75,000
4 Computers	----	$15,000
Uniforms	$2,000	----
Misc. Office Supplies	$2,500	----
Total	**$335,900**	**$211,400**

(1) Presumes one parking/transportation administrator ($60,000 salary), one parking coordinator ($40,000), and three full-time parking enforcement officers ($30,000 each).

G. Summary of ESTU Parking & Shuttle System Costs

As noted in the introduction to this section, the Parking & Transportation Service Department must function within the context of an auxiliary service, where at a minimum revenues must equal operating expenses. To date, the cost of issuing permits, enforcing regulations, maintaining surface lots, funding and expanding shuttle operations, increasing safety and security within the lots and garage(s), and building new surface and structured parking facilities has not been quantified. As these annual costs include salaries, material, and debt service payments, they need to be projected out over the length of the program. For purposes of this study, cost and revenue projections extend 10 years out to FY2017 (Table 21).

It is estimated that ETSU's parking and shuttle system will cost the University $1,299,000 in FY2008 presuming the development and maintenance of a new parking lot on Site B (cost figures highlighted in green). With the development of the University's first parking structure in FY2010 (see blue highlighted costs), the total system costs will increase to approximately $3,202,000. Per year increases in material maintenance, salaries, and other expenses will cause the system costs to increase to $3,507,000 by FY 2015. With the development of ETSU's second parking structure, system costs will increase to roughly $4.5 million by FY2017.

It could be argued that certain expenses could be deferred for a number of years, thereby saving the University in the short-term. Additionally, some of the smaller scale improvements to shuttle operations or permit issuance could be delayed. The recommendations that have been presented cannot be perceived as a menu of recommendations to choose from. Instead, they are links in the management, maintenance, and development chain that holds the system together. Their costs cannot be broken down, diminished, or deferred without negatively impacting operations and the long-term goals of parking and circulation for the campus.

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Table 21:

Summary of Parking & Transportation Services Department System Costs

10-Year Operations, Maintenance and Development Cost Estimates	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Current/Projected Maintenance Costs (1)										
Non-Metered Surface Parking	$340,700	$341,300	$341,300	$302,600	$302,600	$302,600	$302,600	$302,600	$283,100	-$5,800
Metered Surface Parking	$8,330	$8,660	$9,010	$9,370	$9,740	$10,130	$10,540	$10,960	$11,400	$11,860
New Surface Parking (Site B)	$16,000	$16,600	$17,300	$18,000	$18,700	$19,400	$20,200	$21,000	$21,800	$22,700
New Structured Parking (Site 3a & Site 4)	$0	$0	$0	$176,250	$185,060	$194,310	$204,030	$214,230	$291,690	$303,358
Total Maintenance Costs	**$365,030**	**$366,560**	**$367,610**	**$506,220**	**$516,100**	**$526,440**	**$537,370**	**$548,790**	**$607,990**	**$332,118**
Permit/Violations Appeal Web Hosting	**$120,000**	**$123,600**	**$127,300**	**$131,100**	**$135,000**	**$139,100**	**$143,300**	**$147,600**	**$152,000**	**$156,600**
Recommended Operations Cost (2)										
Salaries/Benefits/Overtime	$301,400	$316,470	$332,290	$348,900	$366,350	$384,670	$403,900	$424,100	$445,310	$467,580
Capital Items (3)	$30,000	$30,000	$30,000	$30,000	$30,000	$0	$0	$0	$0	$0
Fuel	$10,000	$10,500	$11,030	$11,580	$12,160	$12,770	$13,410	$14,080	$14,780	$15,520
Hangtags/Permits	$20,000	$21,000	$22,050	$23,150	$24,310	$25,530	$26,810	$28,150	$29,560	$31,040
Uniforms	$2,000	$2,100	$2,210	$2,320	$2,440	$2,560	$2,690	$2,820	$2,960	$3,110
Misc. Office Supplies	$2,500	$2,630	$2,760	$2,900	$3,050	$3,200	$3,360	$3,530	$3,710	$3,900
Total Operating Costs	**$365,900**	**$382,700**	**$400,340**	**$418,850**	**$438,310**	**$428,730**	**$450,170**	**$472,680**	**$496,320**	**$521,150**
Total Maintenance & Operating Costs	**$850,930**	**$872,860**	**$895,250**	**$1,056,170**	**$1,089,410**	**$1,094,270**	**$1,130,840**	**$1,169,070**	**$1,256,310**	**$1,009,868**
Shuttle Program										
JCT BucShot Shuttle	$37,400	$37,400	$37,400	$44,900	$44,900	$44,900	$53,900	$53,900	$53,900	$64,700
Intra-Campus Shuttle Program	$288,000	$299,500	$311,500	$324,000	$337,000	$350,500	$364,500	$379,100	$394,300	$410,100
Total Shuttle Program	**$325,400**	**$336,900**	**$348,900**	**$368,900**	**$381,900**	**$395,400**	**$418,400**	**$433,000**	**$448,200**	**$474,800**
Structured Parking Development Program										
Site B Debt Service Payment	$122,924	$122,924	$122,924	$122,924	$122,924	$122,924	$122,924	$122,924	$122,924	$122,924
Site #3a Debt Services Payment	$0	$0	$1,834,872	$1,834,872	$1,834,872	$1,834,872	$1,834,872	$1,834,872	$1,834,872	$1,834,872
Site #4 Debt Service Payment	$0	$0	$0	$0	$0	$0	$0	$1,061,984	$1,061,984	$1,061,984
Total Structured Parking Debt Service	$122,924	$122,924	$1,957,797	$1,957,797	$1,957,797	$1,957,797	$1,957,797	$3,019,781	$3,019,781	$3,019,781
Total System Costs	**$1,299,254**	**$1,332,684**	**$3,201,947**	**$3,382,867**	**$3,429,107**	**$3,447,467**	**$3,507,037**	**$4,621,851**	**$4,724,291**	**$4,504,449**

Footnotes:
(1) Cost based on $150 per space per year for structured parking, $75 per year for metered parking, and $50 per year for non-metered surface parking
(2) Operating costs anticipated to increase 4% per year.
(3) Reflects annual payment for non-recurring Capital Items for 3 enforcement vehicles, handheld ticket issuance system, and computers.

VI SPACE ALLOCATION STRATEGIES & FINANCIAL ACCOUNTABILITY

With the determination of costs associated with the Parking and Transportation Services Department and the various surface, structured, and shuttle improvements that are recommended, the next section of the study identifies the parking revenues required to offset these costs. Apart from a significant one-time capital contribution by the University from the current parking fund, there are but two general revenue sources that could support the parking and shuttle program; user fees and fines assessed through parking enforcement. While the University currently collected roughly $239,000 in fines, the most significant of these sources, user fees, is dependent both on the permit and meter rate that would be charged and the type of space allocation system that would be employed. Furthermore, and presuming that the system costs are a given, the rate that must be charged to offset system costs is dependent on the number of spaces that are allocated to different user groups and the number of permits that might be issued/sold. Before space allocation, assignment and rate alternatives can be explored; discussion of how permits will be issued is required.

A. Third-Party Web-Based Permit Issuance and Violations Appeal System

A key to a successful space allocation and assignment program regardless of the particular strategy that is employed is permit issuance. It is anticipated that there will be over 12,000 requests for parking permits each year, with the vast majority occurring in the weeks leading up to the start of each academic year. Such a volume would typically place great stress on a University's parking office under the presumption that permit sales occur at a cashier's window. As an alternative, it is recommended that ETSU and its Parking and Transportation Department utilize a third-party web-based permit issuance and violations appeal system. Under this system, a contractor would develop a webpage that is linked to University and its Banner reporting system and manage the day to day issuance of permits, collection of revenues, initial violations appeals, and fine revenue collection. There are four (4) main issues the contract would address:

1) Online Permit sales and delivery by a third party
2) Point of Sale for parking permits sold locally
3) Online parking citation processing/ adjudication
4) Handheld citation writers

The goal of this third-party contract is to purchase, implement, and maintain a system that will achieve the following:

- Increase revenue collections
- Reduce overall workload through automation and use of technology
- Identify repeat offenders, scofflaws, and VIPs to field officers
- Assist in better managing communications with customers
- Improve and enhance parking permit sales

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- Reduce office traffic by allowing customers to apply for, as well as purchase, permits via the Internet
- Reduce office traffic by allowing customers to access account information and pay citations via the Internet
- Reduce office traffic by allowing customers to appeal citations via the Internet
- Help the University obtain useful reports for system analysis, problem resolution, overall efficiency, etc.
- Enhance the University's public and professional image to our customers
- Save time by incorporating a relational database that contains permits, properties, citations, vehicles, and customers (i.e. permit holders, persons responsible for citations, etc.)
- Provide a better system for tracking: vehicles that have been booted/towed or have been approved for boot/tow, the status/location of booted/towed vehicles, as well as the fine accrual while in impound
- Provide a platform for integration with other parking and financial accounting systems via an open database platform

While this program would considerably reduce time consuming data entry and tracking functions, allowing Parking & Transportation staff to focus on planning, management, financial accountability and customer service, it would come at a significant annual costs. Based on a similar application for a large community college system in Maryland, it is estimated that the third-party web based permit issuance and violations appeal system would cost $120,000 for the first year. It is anticipated that the service provider and the University will build into the contract escalators for annual cost increases.

B. Basics of Parking Space Allocation and Assignment

Under on current parking operations, a campus parking permit holder could circulate between any number of parking lots that are allocated to their use. This dramatically increases traffic volumes on campus and the level of frustration experienced by the would-be parker. Additionally, this approach provides the temptation to some individuals to park illegally in a space designated for a different user group (faculty/staff only parking for example) or for a different purpose (service vehicle only parking) if those spaces were unoccupied. By both allocating a parking facility to a specific group and assigning an individual parker to that location, ETSU can reduce traffic volumes, minimize confusion and frustration, and reduce but not eliminate the temptation to park illegally.

Using the modeling of current parking demand by user group and by building as a foundation (refer back to Exhibit E), the study examined the opportunity to improve the allocation of existing parking spaces and reduce vehicle circulation patterns and volumes. While there are any number of ways that the 67 different surface lots and on-street parking areas can be allocated, there are only two principles that can be referenced when determining a fair and effective space allocation and assignment program. The first relates to parking duration and suggests that the shorter the duration of stay the shorter

the acceptable walking distance. On a university campus duration can be defined by user group where visitors and short-term parkers should be assigned the most convenient spaces possible, Faculty and staff would then be assigned the second tier of most convenient spaces, followed by commuting students, and finally resident students. The second principle relates to proximity and value. Simply put, spaces that are closer to ones destination are perceived as more valuable regardless of the trip purpose. As opposed to the user-based approach to space allocation/assignment where the user has little choice in location or fee, the value-based approach allows any parker to choose their parking location based on the fee they are willing to pay. The space allocation and financial analysis that follows will track the revenue requirements associated with both the user-based and value-based allocation strategies.

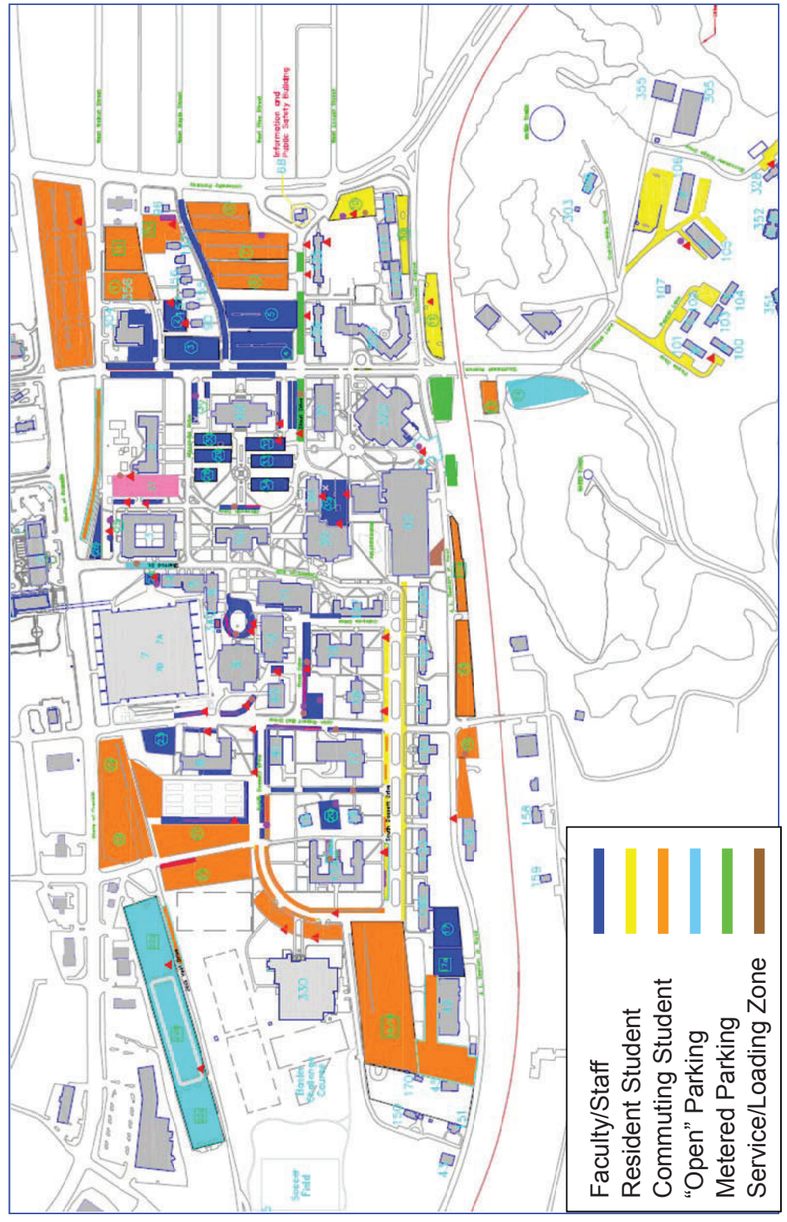
It should be noted that no parking assignment or allocation system is flawless. Paraphrasing Abraham Lincoln, and with regards to parking, "you can satisfy some of the people all of the time, and all of the people some of the time, but you can not satisfy all of the people all of the time." On a campus where a parking space next to an academic/administrative building or a resident hall cannot be guaranteed because of the sheer demand for parking and the desire to preserve open or green space, a reasonable parking assignment and allocation program is one that inconveniences all user groups to some extent. Therefore, from an egalitarian perspective, a fair parking program tries to balance inconveniences equitably. That might suggest that those that are willing to pay for convenience will be inconvenienced by higher parking fees while those that are unwilling to pay for convenience will be inconvenienced by greater walking/shuttle distances.

C. User-based Space Allocation/Assignment

Exhibit M illustrates a user-based parking space allocation program. In comparison to the current allocation of spaces there are many changes in this program but three are quite significant. First, the number of open parking spaces has been dramatically reduced. Many open space lots would be reassigned to faculty/staff and students. Only Lot 22a near the athletic fields and Lot 14 just south of the railroad tracks on Southwest Avenue would be available to any permit holder ("Open"). It is assumed that a new surface lot near Pirate Cove (Lot B) would also be designated as an open lot while a new parking structure between Maple Street and Walnut would service a mix of faculty, staff and commuting students. The second dramatic change is the segregation of commuter and resident student spaces. Currently, the two groups share student designated spaces. Third, the number of metered parking spaces would increase from 19 to 111 under this program. These 2-hour metered spaces could serve visitors and those students and staff who need quick and short-term access to the campus and would be concentrated around Sherrod Library, Culp Center, and Dossett Hall. Note that the 2-hour duration would have to be strictly enforced (no long-term parking or meter feeding). While not a change in the number of allocated spaces, it is recommended that the resident student spaces that would remain on South Dossett Drive and by the Davis Apartments be identified as

premium spaces. Upper classmen would get the first opportunity to purchase a permit to park in these more valuable lots.

Exhibit M:
User-based Space Allocation and Assignment Program



The parking use/ownership characteristics that were obtained through pedestrian questionnaires (see Table 6) were used to estimate the number of parking permits that would be purchased each year by the different user groups. For example, it is estimated that 100 full-time faculty who are employed on the ETSU campus will purchase 90 faculty/staff parking permits. The pedestrian questionnaires and faculty/staff population data also provided some insight into the number of permits that would be issued per user group. For example, it is understood that not all faculty are on campus as the same time. Statistics suggest that only 60% of the total faculty population is on campus during the peak period of parking activity (10AM-1PM) on a typical day. Therefore, the number of permits issued to faculty could be greater than the number of spaces that are allocated and assigned to them. Such oversell ratios apply to lesser and greater degree to all campus user groups and are also illustrated on Table 22.

However, even under the best managed conditions there will be those rare occasions when there will be more parkers than parking spaces in a particular lot or for a particular user group at a particular moment in time. The Parking and Transportation Department must maximize the utilization of each and every lot by issuing a maximum number of permits. Otherwise, certain lots would appear under utilized and would entice individuals not assigned to those spaces to use them illegally. As recourse, all parking permit holders would know through the registration process that if their assigned parking lot or location was full they would be required to park in one of the various "open" lots. This further supports the need for an express shuttle from these peripheral locations. The persons per auto and permit oversell ratios on Table 22 will be applied to both the user-based allocation and the value-based allocation strategies.

Table 22:
Population to Persons per Auto/Permit Request and Permit to Space Oversell Ratios

Population Group	Persons to Auto Ratio	Permit to Space Oversell Ratio
Full-Time Employees		
Full-Time Faculty	0.90	1.80
Full-Time Staff	0.90	1.60
Non-Full Time Employees		
Adjunct Faculty	0.95	n.a.
Hourly Staff/Technicians	0.95	n.a.
Seasonal/Monthly	0.95	n.a.
Students		
Commuting Students	0.87	2.20
Resident Students	0.60	1.40

By applying the persons per auto and permit to space oversell rates to projections of future populations, Table 23 estimates the number of parking permits that would be issued/sold each year through 2017. It is important to recognize the fact that with changes in parking permit rates there may be some reduction in auto utilization and parking demand. That change, though desirable in the long-term as it reduces the need to

build additional parking facilities, is impossible to accurately predict at this time. Nonetheless, the analysis of rates and revenues required to offset system costs should anticipate some loss of revenue potential. Therefore, the rate/revenue calculations to be presented must net a slight revenue surplus so as to account for a possible reduction in parking demand over time.

Table 23:
Estimated Number of Permits Issued/Sold under the User-Based Space Allocation Program

Population Group	Fall 2008 Population	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Full-Time Employees											
Full-Time Faculty	574	520	530	540	550	560	570	580	590	600	610
Full-Time Staff	1,131	1,030	1,040	1,050	1,060	1,070	1,080	1,090	1,090	1,100	1,110
Full-Time Employee Subtotal	**1,705**	**1,550**	**1,570**	**1,590**	**1,610**	**1,630**	**1,650**	**1,670**	**1,680**	**1,700**	**1,720**
Non-Full Time Employees											
Adjunct Faculty	277	250	250	250	250	250	250	250	250	250	250
Hourly Staff/Technicians	258	240	240	240	240	240	240	240	240	240	240
Seasonal/Monthly	40	40	40	40	40	40	40	40	40	40	40
Non-Full Time Subtotal	**535**	**530**	**530**	**530**	**530**	**530**	**530**	**530**	**530**	**530**	**530**
Students											
Commuting Students	9,882	8,800	8,970	9,150	9,340	9,520	9,710	9,910	10,110	10,310	10,520
Resident Students	2,274	1,260	1,420	1,420	1,350	1,350	1,350	1,350	1,350	1,350	1,350
Student Subtotal	**12,156**	**10,060**	**10,390**	**10,570**	**10,690**	**10,870**	**11,060**	**11,260**	**11,460**	**11,660**	**11,870**
Total Permits	----	**12,140**	**12,490**	**12,690**	**12,830**	**13,030**	**13,240**	**13,460**	**13,670**	**13,890**	**14,120**

An elaborate financial model was developed to determine the required annual parking permit rate for each user group. The model is based on full-time employee and resident student rates being equal in cost with commuting student rates being slightly lower. The logic behind this strategy is based on the fact that employees may be more financially self-sufficient than commuting students and would be able to pay a higher fee. The resident student rate is based on the fact that resident students, who generally park "24/7" utilize the parking service much more than any other group and should pay a higher fee. The model is also based on 20% fee increases every four years which is representative of cost of living increases over that period of time. Under these conditions full-time employees and resident students could purchase annual parking permits at $280 and commuting students would be asked to pay $190. Table 24 projects the rates and rate increases through 2017.

Table 24:
Annual Permit and Metered Parking Fees Required to Meet System Operating Cost Under the User-Based Allocation Program

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Full-Time Employees										
Full-Time Faculty	$280	$280	$280	$280	$340	$340	$340	$340	$410	$410
Full-Time Staff	$280	$280	$280	$280	$340	$340	$340	$340	$410	$410
Non-Full Time Employees										
Adjunct Faculty	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Hourly Staff/Technicians	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Seasonal/Monthly	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Students										
Commuting Students	$190	$190	$190	$190	$230	$230	$230	$230	$280	$280
Resident Students	$280	$280	$280	$280	$340	$340	$340	$340	$410	$410
Metered Spaces (per hour)	$0.50	$0.50	$0.75	$0.75	$0.75	$0.75	$1.00	$1.00	$1.00	$1.00

It is understood that not all faculty, staff or students will need an annual parking permit. Therefore, the Parking & Transportation Services Department will need to establish rates for semester, monthly, and weekly parking permits, all issued through the web-based registration program or via walk-ups to the Parking & Transportation Services Department.

Finally, Table 25 compares the system operating expenses to the system operating revenues. Note that the revenues include projections for meter utilization and fees associated with fines for parking violations. With regards to fines from violations, it is strongly recommended that the University not become dependant on these dollars as this line item can vary greatly from year to year.. As parking enforcement efforts become more stringent and patrols more regular, these dollars should decrease as a result of a greater number of users adhering to posted policies. However, for purposes of this analysis the current 2006/2007 fine revenue of $239,000 was used as a baseline with no future revenue increases being anticipated.

A critical element in the financial analysis is the generation of surplus or cumulative revenue during the initial years of the parking strategy and transportation program. As noted in the operating surplus or deficit row the Parking & Transportation Services Department will operate at a deficit for six of the ten years projected in this model. However, the revenues that would be generated in 2008 and 2009 represent the foundation upon which future improvements can be financed without the need for more aggressive (every two years) and significant rate increases.

Table 25:
Annual Permit and Metered Parking Fees Required to Meet System Operating Cost
Under the User-Based Allocation Program

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Operating Costs										
Total Maintenance Costs	$365,030	$366,560	$367,610	$506,220	$516,100	$526,440	$537,370	$548,790	$607,990	$332,118
Permit/Violations Appeal Web Hosting	$120,000	$123,600	$127,300	$131,100	$135,000	$139,100	$143,300	$147,600	$152,000	$156,600
Parking Department Operating Costs	$365,900	$382,700	$400,340	$418,850	$438,310	$428,730	$450,170	$472,680	$496,320	$521,150
Total Operating Costs	**$850,930**	**$872,860**	**$895,250**	**$1,056,170**	**$1,089,410**	**$1,094,270**	**$1,130,840**	**$1,169,070**	**$1,256,310**	**$1,009,868**
Total Shuttle Operating Costs	**$325,400**	**$336,900**	**$348,900**	**$368,900**	**$381,900**	**$395,400**	**$418,400**	**$433,000**	**$448,200**	**$474,800**
Debt Service Payments for Construction	**$122,924**	**$122,924**	**$1,957,797**	**$1,957,797**	**$1,957,797**	**$1,957,797**	**$1,957,797**	**$3,019,781**	**$3,019,781**	**$3,019,781**
Total Debt Service & Operating Cost	**$1,299,254**	**$1,332,684**	**$3,201,947**	**$3,382,867**	**$3,429,107**	**$3,447,467**	**$3,507,037**	**$4,621,851**	**$4,724,291**	**$4,504,449**
User-Based Employee Salary Variable Rate										
Permits	$2,358,400	$2,426,850	$2,465,700	$2,492,550	$3,037,680	$3,086,700	$3,138,120	$3,189,540	$3,910,240	$3,975,230
Meters	$101,500	$101,500	$152,250	$152,250	$152,250	$152,250	$203,000	$203,000	$203,000	$203,000
Fines from Parking Violations	$239,000	$239,000	$239,000	$239,000	$239,000	$239,000	$239,000	$239,000	$239,000	$239,000
Total Parking Revenue	**$2,698,900**	**$2,767,350**	**$2,856,950**	**$2,883,800**	**$3,428,930**	**$3,477,950**	**$3,580,120**	**$3,631,540**	**$4,352,240**	**$4,417,230**
Operating Surplus or Deficit	$1,399,646	$1,434,666	-$344,997	-$499,067	-$177	$30,483	$73,083	-$990,311	-$372,051	-$87,219
Cummulative	***$1,399,646***	***$2,834,311***	***$2,489,314***	***$1,990,247***	***$1,990,070***	***$2,020,554***	***$2,093,637***	***$1,103,326***	***$731,275***	***$644,056***

D. Value-based Space Allocation/Assignment

An alternative to the user-based approach to space allocation, assignment, and rates is a value-based strategy. As noted in the introduction, the value-based approach simply sets relative value on the University's parking assets based on proximity to a theoretical campus core. An individual regardless of their user group status or salary could choose to purchase a parking permit in any of four different value zones; academic core, academic periphery, residential core, and economy parking. The academic core would have the greatest value and the economy lots would be the most economical. Under this program a tenured professor who is cost conscious may choose to request an economy parking permit while a commuting student who values convenience over price could choose to request an academic core permit. Exhibit N illustrates the allocation of existing ETSU lots under this program while Table 26 estimates the number of parking permits that could be sold/issued. It is important to note that the estimated number of permits sold/issued under the value-based and user-based program must be nearly identical for comparative purposes and that the reduction in permit sales associated with a reduction in parking demand must also be anticipated.

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Exhibit N:
Value-based Space Allocation and Assignment Program

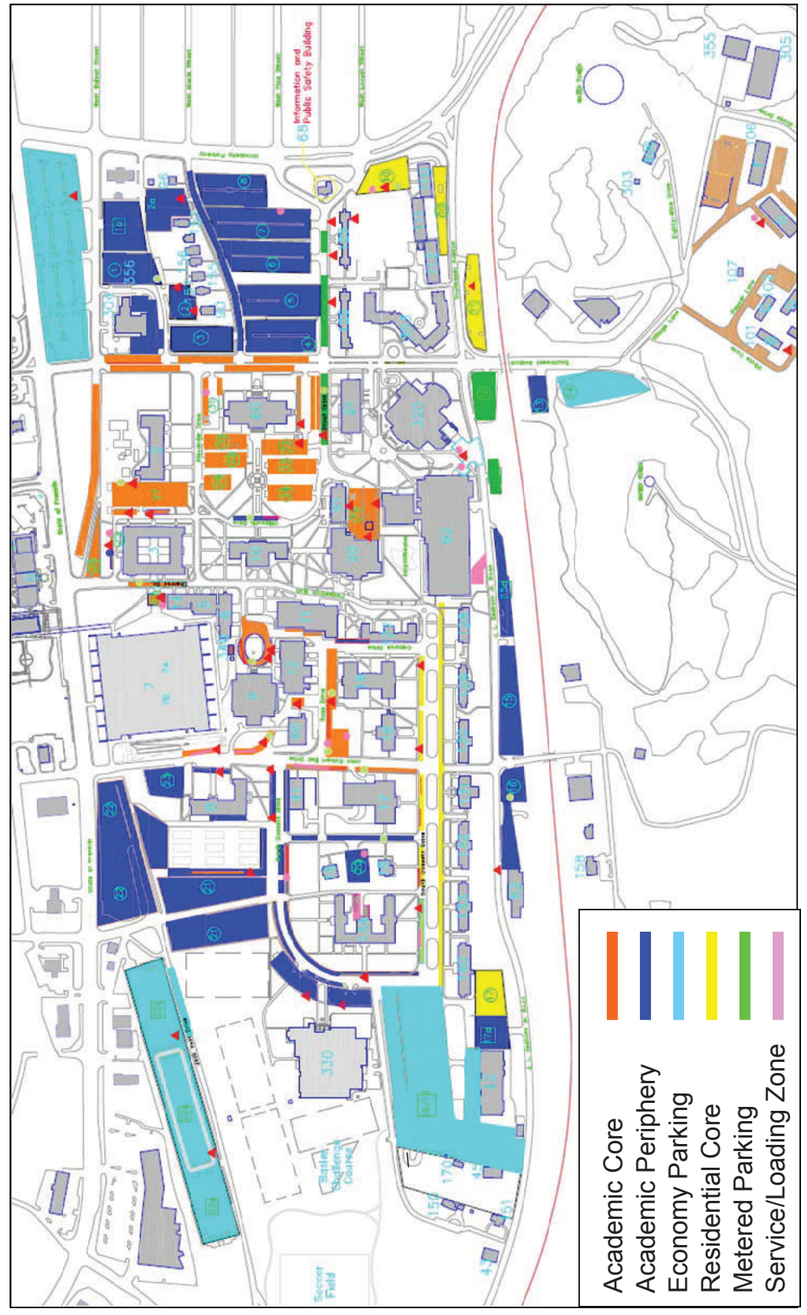

Table 26:
Number of Spaces, Oversell Rate, and Estimated Number of Permits Issued/Sold under the Value-Based Space Allocation Program

Allocation by Zone	# of Spaces	Anticipated Oversell Rate	# of Permits Issued 2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Academic Core	927	1.5	1,400	1,442	1,465	1,481	1,504	1,528	1,553	1,577	1,602	1,629
Academic Periphery	2,477	1.8	4,460	4,592	4,666	4,717	4,791	4,868	4,949	5,026	5,107	5,192
Residential Core	459	1.2	550	566	575	581	590	600	610	620	630	640
Economy Parking	1,984	2.4	4,840	4,984	5,064	5,120	5,200	5,284	5,372	5,456	5,544	5,636
Pirates Cove/Bucs Ridge	731	1.2	880	906	921	931	946	961	977	992	1,008	1,025
Service	32	na	0	0	0	0	0	0	0	0	0	0
Visitor/Metered	116	na	0	0	0	0	0	0	0	0	0	0
Total	**6,726**	**---**	**12,130**	**12,490**	**12,690**	**12,830**	**13,030**	**13,240**	**13,460**	**13,670**	**13,890**	**14,120**

While the rate increase assumption of 20% every four years for the value-based approach is the same as the user-based approach, the required rate structure is somewhat more complicated. The foundation of the value-based permit rate structure (see Table 27) is based on the desire to keep economy parking relatively close to today's faculty/staff annual rate of $50. That rate, in turn, dictated to a significant degree the rates that must be established for academic core, periphery and residential core permits. Note that parking permits for Pirate Cove/Bucs Ridge apartments are included in the revenue analysis but are tracked as a separate student fee. The value of academic core parking is set at $300 per year while academic periphery and residential cores are set at $200.

Table 27:
Annual Permit Parking Fees Required to Meet System Operating Cost under the Value-Based Space Allocation Program

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Academic Core	$300	$300	$300	$300	$360	$360	$360	$360	$410	$410
Academic Periphery	$200	$200	$200	$200	$240	$240	$240	$240	$280	$280
Residential Core	$200	$200	$200	$200	$240	$240	$240	$240	$280	$280
Economy Parking	$80	$80	$80	$80	$100	$100	$100	$100	$120	$120
Pirates Cove/Bucs Ridge	$80	$80	$80	$80	$100	$100	$100	$100	$120	$120
Metered Spaces (per hour)	$0.50	$0.50	$0.75	$0.75	$0.75	$0.75	$1.00	$1.00	$1.00	$1.00

Table 28 then compares the revenues that could be generated to the system operating expenses. As before, the key to the financial model is the generation of surplus parking revenue during the initial years of the program. Like the user-based allocation model, it is anticipated that operating revenues will have consumed the cumulative operating surplus sometime between 2017 and 2019.

With regards to parking pricing for a future 1,200 space parking structure it is anticipated that a mix of users and prices will be required. Daytime users would most likely include visitors and academic core permit holders on the grade level and academic periphery permit holders on the upper levels. Evening and weekend parkers would include visitors and event patrons. It is recommended that the structure include gate access and revenue control equipment for both permit ingress/egress and cash transactions.

There was some question regarding parking rates for those individual's with disabilities. Is it appropriate for individuals who require access to ADA standard spaces to be required to purchase parking permits for those more convenient spaces? Regardless of the circumstances of the user, parking spaces have an inherent value. Therefore, it would be expected that if a handicapped individual chooses to purchase a parking permit for an academic core or academic periphery space they would be required to pay the market rate for that spaces. Alternatively, if that individual chooses to purchase a permit in a more distant economy lot, that individual would be accommodated through the provision of an ADA accessible shuttle service.

Table 28:
Annual Permit and Metered Parking Fees Required to Meet System Operating Cost
Under the Value-Based Allocation Program

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Operating Costs										
Total Maintenance Costs	$365,030	$366,560	$367,610	$506,220	$516,100	$526,440	$537,370	$548,790	$607,990	$332,118
Permit/Violations Appeal Web Hosting	$120,000	$123,600	$127,300	$131,100	$135,000	$139,100	$143,300	$147,600	$152,000	$156,600
Parking Department Operating Costs	$365,900	$382,700	$400,340	$418,850	$438,310	$428,730	$450,170	$472,680	$496,320	$521,150
Total Operating Costs	**$850,930**	**$872,860**	**$895,250**	**$1,056,170**	**$1,089,410**	**$1,094,270**	**$1,130,840**	**$1,169,070**	**$1,256,310**	**$1,009,868**
Total Shuttle Operating Costs	**$325,400**	**$336,900**	**$348,900**	**$368,900**	**$381,900**	**$395,400**	**$418,400**	**$433,000**	**$448,200**	**$474,800**
Debt Service Payments for Construction	**$122,924**	**$122,924**	**$1,957,797**	**$1,957,797**	**$1,957,797**	**$1,957,797**	**$1,957,797**	**$3,019,781**	**$3,019,781**	**$3,019,781**
Total Debt Service & Operating Cost	**$1,299,254**	**$1,332,684**	**$3,201,947**	**$3,382,867**	**$3,429,107**	**$3,447,467**	**$3,507,037**	**$4,621,851**	**$4,724,291**	**$4,504,449**
Value-Based Approach										
Permits	$2,337,200	$2,406,600	$2,445,300	$2,472,060	$3,062,080	$3,111,400	$3,163,040	$3,212,360	$3,835,660	$3,899,490
Meters	$101,500	$101,500	$152,250	$152,250	$152,250	$152,250	$203,000	$203,000	$203,000	$203,000
Fines from Parking Violations	$239,000	$239,000	$239,000	$239,000	$239,000	$239,000	$239,000	$239,000	$239,000	$239,000
Total Parking Revenue	**$2,677,700**	**$2,747,100**	**$2,836,550**	**$2,863,310**	**$3,453,330**	**$3,502,650**	**$3,605,040**	**$3,654,360**	**$4,277,660**	**$4,341,490**
Operating Surplus or Deficit	$1,378,446	$1,414,416	-$365,397	-$519,557	$24,223	$55,183	$98,003	-$967,491	-$446,631	-$162,959
Cummulative	***$1,378,446***	***$2,792,861***	***$2,427,464***	***$1,907,907***	***$1,932,130***	***$1,987,314***	***$2,085,317***	***$1,117,826***	***$671,195***	***$508,236***

E. Allocation System Pros, Cons, and Recommendation

As noted throughout this section of the report, neither of these space allocation, assignment, and permit rate strategies is perfect. The user-based approach basically dictates what fee an individual must pay based on their relationship with the University. For example, an employee making $20,000 will be required to pay the same permit rate as an employee making $60,000. Though some consideration was given to faculty/staff permit rates being based on a sliding scale tied to their salary, most ETSU faculty/staff members that were interviewed on this topic found it overly complex to administer and problematic from a psychological standpoint. A common refrain was "why would someone pay more than someone else for the same level of service (parking convenience) just because they make more money". The value-based approach appears more economically logical. However, the laws of supply and demand are difficult to predict. Few may be willing to choice the higher priced academic core spaces, causing an imbalance in the distribution of parking permits and a shortfall in the revenue that is required to support the system. Under this program the Parking & Transportation Services Department will need to carefully monitor permit sales to ensure that there is an effective rate structure in place that will both distribute demand to the various lots and generate sufficient revenue.

Based on discussions with various groups during the course of the study it is recommended that the University employ the value-based approach to parking allocation and assignment. The element of choice seemed to be the most valuable characteristic of the value-based approach. It appears that a driver's relationship with their automobile is particularly strong in this area of the country. Student representatives were quite supportive of a parking fee increase only if the range of choices widened and the value of the service being provided improved. Faculty and staff representatives were sensitive to the true cost of the parking system but were equally sensitive to the fact that not all employees would be willing or able to pay the higher fixed employee rate. However, prior to the formal implementation of these value-based rates it is recommended that the University prepare and distribute a parking questionnaire related to what faculty, staff, and students perceive as the value of a parking space in a particular lot. This survey would provide the Parking & Transportation Services Department a relative sense of value and marketability of a required rate structure. Furthermore, the University must be cautioned that it cannot implement this program overnight. The formalization of the Parking & Transportation Services Department, the hiring of a department administrator and supervisor, and the procurement of the third-party, web-based permit/violations management contract can take between 12 and 18 months. This schedule would delay the University's ability to implement parking rate changes as recommended in the financial analysis.

F. Visitor and Event Parking Recommendations

The focus to this point has been on recommendations regarding parking faculty, staff, and student parking management and operations, future facility development, and finance. While those recommendations did include a vastly expanded parking meter program, one that could serve employees, students, and visitors, some additional guidance specific to visitor parking is still required. As noted in Section 2 – Current Parking Operations, visitors to the campus are directed through the University's website, signage, and personal conversation to the Information and Public Safety Building to obtain a temporary visitor permit (hangtag). The permit notes the date and duration of authorization and allows the individual to utilize any legal space on campus with the exception of handicapped accessible, service vehicle, or emergency spaces. This is a common practice on many university campuses.

Two alternatives that have been considered center on the creation and identification of visitor only designated spaces and/or lots. On some campuses a particular lot or lots are designated for visitor only parking. Often times these lots are controlled by gates, have a cashiers' booth, and are in a central location. Gated access control assists in preserving these spaces for visitors and a cashier collects parking revenue on exit and orients visitors to their ultimate destination. This approach is most effective when there is a central location where all visitors would like to go, where the volume of visitors each day is significant, and/or the stress on the parking supply is not great. Given the layout, form, and function of the ETSU campus, there does not appear to be a single location/lot where all visitor activity could be satisfied. With the exception of certain daytime special events, there does not appear to be a significant volume of visitors coming to the campus each day. It is envisioned that if the University were to create a visitor designated lot; say Lot 35 in front of Roy S. Nicks Hall, that lot would be underutilized for much of the day. Given the current and future shortfall of parking on the campus ETSU should not at this time reserve a core lot for visitor use.

The other alternative is to "sprinkle" visitor designated spaces throughout the campus. Two to four spaces in each of the various academic core and periphery lots could be reserved for visitor parking. They could be placed along side existing service vehicle/loading spaces. However, the volume of visitors to the campus can vary significantly and the number of spaces that would be distributed throughout the campus may be more than visitor demand requires. As with the visitor lot alternative, it could be envisioned that the majority of these spaces would remain unoccupied.

It is therefore recommended that the University not designate either lots or spaces to visitor use. ETSU and its Parking and Transportation Department should continue to direct visitors to a central location or locations to obtain a temporary parking permit. Parking Department and Public Safety office personnel will act as a control point to deter non-visitors from abusing the visitor permit system. However, unlike the current program, visitors would be directed to non-premium parking locations, namely the academic core spaces as defined by the value-based allocation program. Visitors would

be directed through orientation material and informational signage to search for any available spaces in the academic periphery, residential core, or economy parking locations.

Resolving the impact of special event parking demand is much more problematic than visitor parking given the infrequency of event scheduling and fluctuation in the volume of event patrons that might be anticipated. As a general rule, the parking industry does not recommend building additional parking capacity on a university campus to satisfy daytime special event activity. The cost of parking development, maintenance and the value of land is too significant to dedicate to such activity even when considering the potential for event parking fees/revenue. Though dedicated event parking is not recommended, the Parking and Transportation Department must manage the event demand that is generated. Event patrons can be directed through the University's website or through direct mailings from the event organizer to park in a specific peripheral location where daytime parking demand may be lowest. The event patron could then use either the existing Bucshot Shuttle or the Express Shuttle that was recommended previously to get to their destination. For daytime events with significant attendance, the University could also add a dedicated shuttle to that location, thereby increasing the level of service event patrons would receive. This service combined with the five fold increase in the number of parking meters on campus should serve both visitor and event patron parking needs.

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Exhibit A1:

ETSU Tuesday Hourly Parking Occupancy by Lot

ETSU Parking	Inventory	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm
On Street										
John Robert Bell Drive	95	58	88	97	95	91	88	86	89	89
Jack Vest Drive	46	46	46	46	44	42	41	40	35	35
Sherrod Drive	4	2	3	4	4	4	4	3	2	1
Unknown Street (1)	20	20	21	21	21	20	19	19	18	16
Lake Street	125	107	127	127	127	125	126	123	120	120
Maple Street	30	27	28	30	30	30	29	24	25	13
Stout Drive	32	30	30	31	30	30	30	29	30	29
Gilbreath Drive	39	30	37	41	41	41	41	40	35	30
Walnut Drive	64	64	66	67	68	67	66	68	54	53
North Dosset Drive	148	131	139	148	148	147	147	143	143	143
South Dosset Drive	190	159	173	182	181	180	176	185	178	178
On Street Subtotal	**793**	**674**	**758**	**794**	**789**	**777**	**767**	**760**	**729**	**707**
Off Street										
Lot 1	77	60	67	69	69	69	56	59	37	17
Lot 1a	84	11	53	84	84	80	75	41	37	15
Lot 2	56	10	18	51	48	49	45	43	46	40
Lot 2a	81	19	58	76	78	67	59	46	42	22
Lot 3	96	43	92	95	94	83	86	93	84	72
Lot 4	105	105	105	103	99	92	103	90	86	90
Lot 5	137	137	137	134	130	135	136	129	121	116
Lot 6	142	142	142	142	139	142	142	131	123	100
Lot 7	167	154	161	167	166	165	166	144	121	76
Lot 8	100	37	98	100	99	100	74	51	48	23
Lot 10	121	121	121	121	119	119	120	120	119	126
Lot 11	79	79	79	78	77	77	76	76	75	77
Lot 12	65	65	65	65	65	67	65	65	65	65
Lot 12a	19	8	19	20	19	19	18	18	17	14
Lot 13	33	33	33	33	35	35	34	34	34	32
Lot 14	122	122	126	126	126	125	114	103	87	63
Lot 15	125	125	126	126	126	129	127	127	120	110
Lot 15a	65	66	67	67	68	67	64	65	66	58
Lot 16	84	86	88	92	90	87	88	88	74	76
Lot 17	69	61	62	63	68	66	65	64	63	61
Lot 17a	43	32	38	35	36	38	39	34	38	30
Lot 18/19	619	316	377	533	585	580	569	496	389	345
Lot 20	32	14	30	30	31	30	28	27	23	28
Lot 21	536	503	518	526	516	501	500	483	421	409
Lot 22	190	201	201	201	188	187	187	167	160	150
Lot 22a	711	66	216	575	479	455	389	246	178	118
Lot 23	50	41	50	50	50	51	51	51	48	50
Lot 24	7	6	6	6	8	5	6	7	6	5
Lot 25	31	26	30	31	29	25	30	26	30	28
Lot 26	21	15	22	22	22	21	18	19	21	22
Lot 27	58	35	49	62	66	63	67	69	66	75
Lot 28	22	22	22	22	21	22	22	21	22	21
Lot 29	43	41	41	42	42	35	40	41	39	19
Lot 30	39	38	38	38	38	32	38	38	38	23
Lot 31	40	34	38	39	40	38	38	35	38	29
Lot 32	73	72	73	75	73	72	72	70	70	53
Lot 33	50	45	44	44	45	44	45	44	43	36
Lot 34	45	45	45	45	44	45	45	45	45	39
Lot 35	46	44	45	46	43	47	46	45	44	42
Foundry Lot	402	117	192	351	388	368	321	209	181	100
Ross Drive	114	92	100	112	111	112	114	108	98	111
Memorial Hall Circle (#9)	26	22	23	26	26	26	27	26	23	26
Basler Lot A	38	37	37	37	37	35	33	35	38	37
Basler Lot B	31	23	30	31	31	30	30	29	31	31
Culp Center Lot A	11	11	8	11	9	9	10	10	11	10
Culp Center Lot B	9	9	8	6	6	6	8	9	6	8
Clement Hall (#134)	12	1	1	2	2	2	2	3	3	2
Tennis Courts	47	44	45	46	45	45	44	42	37	35
Warf-Pickel Hall (#8)	11	7	8	9	9	9	9	8	7	6
Hutcheson Hall (#18)	18	11	17	17	17	17	17	16	15	16
Pirate Cove	71	29	33	34	35	34	33	34	32	32
Residences "F/G"	174	44	46	40	47	48	42	41	43	39
Buccaner Ridge	486	283	246	267	216	235	249	245	251	235
Off Street Subotal	**5,933**	**3,810**	**4,394**	**5,223**	**5,134**	**5,040**	**4,882**	**4,366**	**3,960**	**3,463**
ETSU System Total	**6,726**	**4,484**	**5,152**	**6,017**	**5,923**	**5,817**	**5,649**	**5,126**	**4,689**	**4,170**

Note: Survey excludes 95 spaces in Lot 9 which is currently being utilized for construction staging.

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Exhibit A2:

ETSU Wednesday Hourly Parking Occupancy by Lot

ETSU Parking	Inventory	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm
On Street										
John Robert Bell Drive	95	58	88	97	95	91	88	86	89	89
Jack Vest Drive	46	44	45	46	45	45	46	44	41	29
Sherrod Drive	4	2	3	4	4	4	4	3	2	1
Unknown Street (1)	20	20	21	21	21	20	19	19	18	16
Lake Street	125	127	127	127	127	127	126	127	111	114
Maple Street	30	23	30	29	31	30	26	27	16	12
Stout Drive	32	30	31	31	30	30	30	30	28	26
Gilbreath Drive	39	39	39	38	39	34	38	38	36	32
Walnut Drive	64	65	65	66	68	64	61	62	60	57
North Dosset Drive	148	111	139	145	145	144	142	145	143	143
South Dosset Drive	190	170	176	182	182	181	176	182	177	176
On Street Subtotal	**793**	**689**	**764**	**786**	**787**	**770**	**756**	**763**	**721**	**695**
Off Street										
Lot 1	77	40	66	67	61	58	52	47	33	17
Lot 1a	84	5	82	84	83	78	62	57	44	19
Lot 2	56	7	16	23	42	25	20	24	20	15
Lot 2a	81	8	73	77	72	66	55	54	39	38
Lot 3	96	27	82	94	83	78	71	92	87	73
Lot 4	105	95	104	104	105	105	105	105	96	101
Lot 5	137	137	137	137	137	137	137	137	129	118
Lot 6	142	142	142	142	142	142	142	138	125	110
Lot 7	167	163	164	165	161	158	142	140	95	70
Lot 8	100	7	95	96	93	86	71	62	43	25
Lot 10	121	122	120	120	119	120	118	116	114	116
Lot 11	79	79	79	78	76	78	77	76	79	78
Lot 12	65	64	64	64	64	64	64	64	63	64
Lot 12a	19	10	14	19	19	19	18	18	17	17
Lot 13	33	33	34	34	35	34	34	34	34	29
Lot 14	122	123	121	123	117	118	111	105	77	59
Lot 15	125	125	126	125	125	125	122	120	115	105
Lot 15a	65	66	66	67	68	68	65	64	67	63
Lot 16	84	77	82	83	84	84	82	80	70	61
Lot 17	69	62	65	66	66	65	65	51	56	53
Lot 17a	43	31	35	33	36	34	32	35	36	27
Lot 18/19	619	269	332	366	498	497	497	496	389	364
Lot 20	32	16	20	27	26	24	25	28	31	22
Lot 21	536	385	509	529	529	525	522	512	426	373
Lot 22	190	116	201	204	199	198	197	195	142	129
Lot 22a	711	21	132	304	337	289	195	177	107	86
Lot 23	50	21	38	47	48	47	46	47	47	46
Lot 24	7	7	8	8	7	9	9	6	6	5
Lot 25	31	29	30	27	30	29	28	29	26	27
Lot 26	21	16	17	20	21	20	19	16	16	20
Lot 27	58	27	53	55	62	47	52	53	53	59
Lot 28	22	22	22	22	22	22	22	20	21	22
Lot 29	43	43	44	43	42	39	43	42	44	44
Lot 30	39	39	40	39	38	37	39	39	39	38
Lot 31	40	36	38	39	37	31	33	36	33	34
Lot 32	73	69	73	73	67	69	72	71	70	67
Lot 33	50	50	50	49	49	49	49	49	48	48
Lot 34	45	45	45	45	45	45	45	44	43	44
Lot 35	46	31	38	42	44	42	43	37	41	43
Foundry Lot	402	66	241	338	342	311	281	220	131	92
Ross Drive	114	112	116	118	119	110	120	121	112	115
Memorial Hall Circle (#9)	26	22	23	26	26	26	27	26	23	26
Basler Lot A	38	28	33	38	37	37	35	36	37	38
Basler Lot B	31	22	30	30	27	27	25	31	31	28
Culp Center Lot A	11	10	8	12	13	16	13	12	15	15
Culp Center Lot B	9	9	6	5	6	5	6	7	6	6
Clement Hall (#134)	12	1	2	3	3	2	3	4	3	3
Tennis Courts	47	34	44	46	46	45	45	45	37	33
Warf-Pickel Hall (#8)	11	5	6	8	8	7	10	11	8	7
Hutcheson Hall (#18)	18	12	17	17	17	15	16	17	15	15
Pirate Cove	71	34	40	43	42	38	33	34	29	25
Residences "F/G"	174	38	43	46	47	44	42	37	40	38
Buccaner Ridge	486	284	251	232	221	220	228	231	237	202
Off Street Subotal	**5,933**	**3,342**	**4,317**	**4,702**	**4,843**	**4,664**	**4,465**	**4,348**	**3,745**	**3,372**
ETSU System Total	**6,726**	**4,031**	**5,081**	**5,488**	**5,630**	**5,434**	**5,221**	**5,111**	**4,466**	**4,067**

Note: Survey excludes 95 spaces in Lot 9 which is currently being utilized for construction staging.

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Exhibit B:

Tuesday Fall 2007 Commuter Student Enrollment by Time of Day and Building

Location	8-8:15am	9:30-10am	11am	12:45-1pm	2:15pm	3-4 pm
Advanced Visualization Lab	25		33	13	18	
Art Annex		11	9		6	
Brown Hall	377	508	339	515	171	152
Burleson Hall	148	212	181	200	178	33
Ernest C. Ball Hall	119	69	138	94	141	
Gilbreath Hall	109	116	175	163	128	61
Hutcheson Hall	46	95	104	20	65	89
Lamb Hall	170	238	213	214	119	68
Mathes Hall	6	115	70	27	18	26
Memorial Center (Mini Dome)	136	131	184	207	84	79
Memorial Hall (Brooks Gym)	4	23	16	23	10	
Nicks Hall	114	291	72	93	67	51
Rogers-Stout	554	654	597	583	468	115
Sam Wilson Hall	391	486	307	409	255	190
Warf-Pickel Hall	159	281	225	168	148	188
Wilson-Wallis Hall	58	70	67	72	55	92
Yoakley Hall				1		
Total	**2,416**	**3,300**	**2,730**	**2,802**	**1,931**	**1,144**

Source: ETSU Office of Institutional Research

Exhibit C:

Fall 2007 Number of Resident Students by Resident Hall

Building Name/Location	# of Students
Core Campus Housing	
Carter Hall	21
Governors Hall	509
L. Clement Hall	440
Luntsford Apartments	166
N. Dossett Hall	113
New Apartments	407
Panhellenic Hall	65
Power Hall	79
Stone Hall	61
West Hall	83
Total Core Campus	**1,944**
Buc Village Apartments	
Apt A	6
Apt B	6
Apt C	6
Apt D	7
Apt E	7
Apt F	36
Apt G	29
Total Buc Village	**97**
Davis Apartments	
Apt A	64
Apt B	85
Apt C	84
Total Davis Apartments	**233**
Resident Student Total	**2,274**

Source: ETSU Office of Institutional Research

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Exhibit D:

Full-Time ETSU Main Campus Employees by Building

Building Name	Code	# of Employees
Alexander Hall	2	39
D.M.Brown Hall	3	55
Burleson Hall	4	33
Mathes Hall	5	15
Ernest C Ball Hall	6	17
Memorial Center	7	55
Warf-Picket Hall	8	114
Memorial Hall	9	5
Gilbreath Hall	10	38
College of Medicine	11	56
Sam Wilson Hall	12	78
Hillrise Hall	15	14
ADA Earnes House	16	11
Wilson-Wallis Hall	17	18
Hutcheson Hall	18	13
John P. Lamb Hall	19	74
Sherrod Library	20	45
Rogers-Stout Hall	21	71
Bond House	22	21
Seehorn House	23	73
Power Plant	40	4
Wilbur Bond Main	42	190
Burgin E. Dossett Hall	60	204
Art Annex	62	2
Security & Information	68	28
Golf Practice Facility	69	2
P.Robinson Clinical Education Ctr.	80	3
Reece Memorial Museum	91	3
Culp Student Center	92	69
Yoakley Hall	129	7
Panhellenic Hall	131	1
L Clement Hall	134	4
902 W. Maple	151	4
908 W. Maple	153	8
914 W. Maple	165	2
916 W. Maple	155	10
918 W. Maple	157	5
920 W. Maple	161	1
1110 Seminole	160	14
Roy S. Nicks Hall	180	163
Central Receiving	303	5
Warehouse	305	2
WETS-FM	306	9
Center for Physical Activity	330	7
Total	**---**	**1,592**

Source: ETSU Office of Institutional Research

Exhibit E:

Comparison of Parking Permit and Citation Fine Rates Between ETSU and Four Designated Peer Institutions

Permit Type	ETSU	East Kentucky University	University Arkansas Little Rock	East Carolina University	Appalachian State University
			Annual Permit Rates (Ranges)		
Student Parking	**$30**	30	Calculated as part of tuitiion	$72-$288	$204
Faculty/Staff Parking	**$50**	0	0	$72-$288	$204
Student Resident Parking	**N/A**	30	N/A	$72-$288	N/A
Evening Permits (after 4pm)	**N/A**	N/A	(free after 4pm)	N/A	$102
Motorcycle (designated MC spaces)	**N/A**	N/A	N/A	$25	N/A
Other	**N/A**	N/A	$120 (Reserved)	N/A	

Citation Violation Descrioption	ETSU	East Kentucky University	University Arkansas Little Rock	East Carolina University	Appalachian State University	Peer Average
No valid permit or no valid license plate	$20	$20	$25	$35	$28	$28
Wrong permit for lot/zone	$10	$20	$25	$20	$24	$24
No parking area, red curb/Fire lane	$75	$25	$25	$25	$31	$31
Parking in a Service Vehicle Stall	$20	$25	N/A	N/A	$28	$28
Improper Display of Permit	$10	$20	$10	$5	$10	$10
Parked on sidewalk, safety zone	$50	$25	$25	$25	$26	$26
Parked in a carpool stall	$20	N/A	N/A	N/A	N/A	N/A
Altered, stolen, counterfeit permit; anuathorized use	$100	$100	$100	$50	$88	$88
Failure to register vehicle/false registration info	$35	N/A	N/A	$35	$68	$68
Parked in a reserved parking stall/area	$20	$25	$25	$25	$31	$31
Parked in a disabled parking stall	$100	$60	$100	$250	$165	$165
Parked in a malfunctioning or expired meter	$10	$15	$10	$10	$11	$11
Time Loading Zone Violation	$10	N/A	$25	$10	$15	$15
Parked outside the stall lines	$10	N/A	N/A	$10	$10	$10
Chronic Violator (repeat violations)	$50	N/A	N/A	N/A	N/A	N/A

Source: Carl Walker - Preliminary Campus Parking Study, December 21, 2006

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Exhibit F1:

ETSU Master Plan / Structured Parking Site 1 Concepts

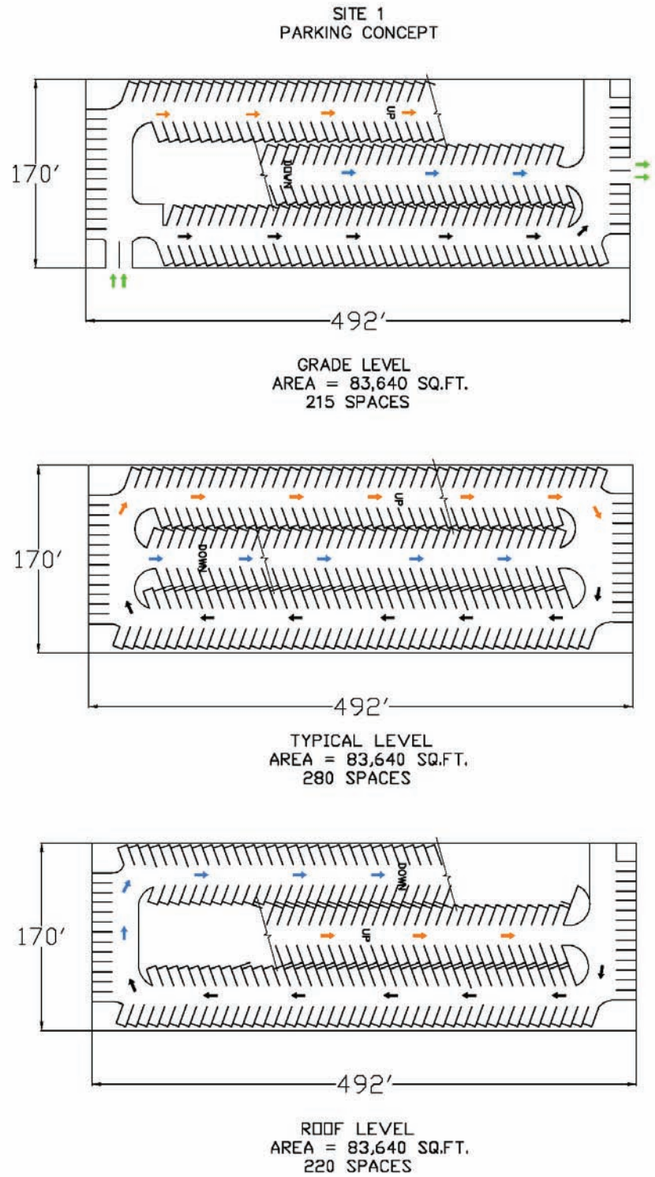
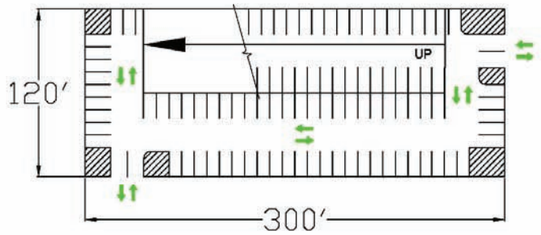
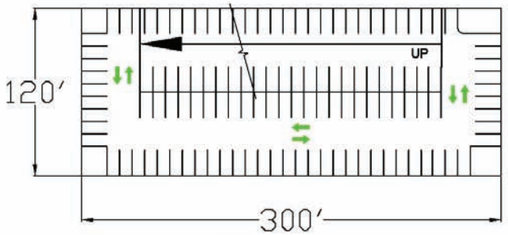


Exhibit F2:
ETSU Master Plan / Structured Parking Site 2 Concepts

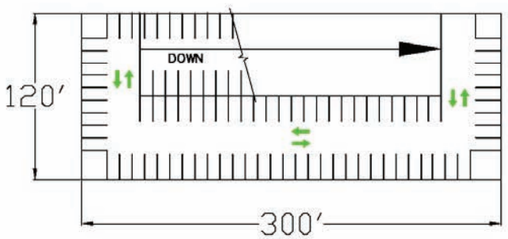
SITE 2
PARKING CONCEPT



GROUND LEVEL
AREA = 36,000 SQ.FT.
95 SPACES



TYPICAL LEVEL
AREA = 36,000 SQ.FT.
120 SPACES



ROOF LEVEL
AREA = 36,000 SQ.FT.
90 SPACES

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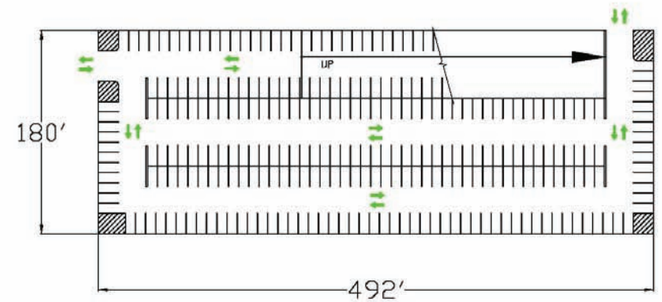
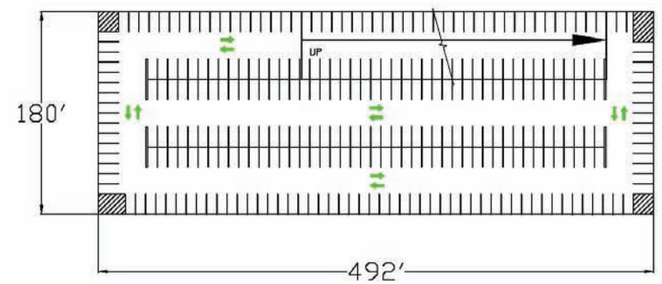
Exhibit F3:
ETSU Master Plan / Structured Parking Site 3a Concepts

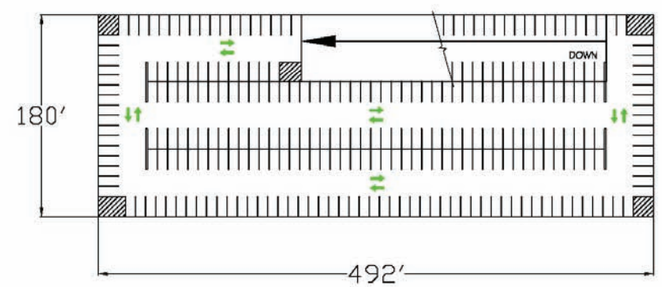
SITE 3A
PARKING CONCEPT



GRADE LEVEL
AREA = 88,560 SQ.FT.
275 SPACES



TYPICAL LEVEL
AREA = 88,560 SQ.FT.
310 SPACES

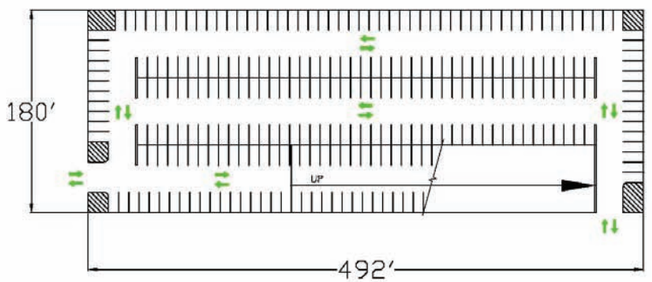


ROOF LEVEL
AREA = 88,560 SQ.FT.
280 SPACES

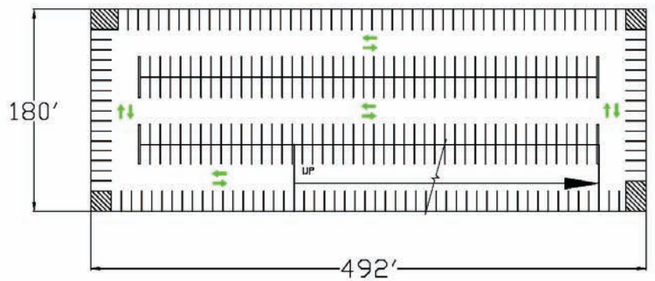
East Tennessee State University Parking Study

Exhibit F4:
ETSU Master Plan / Structured Parking Site 3b Concepts

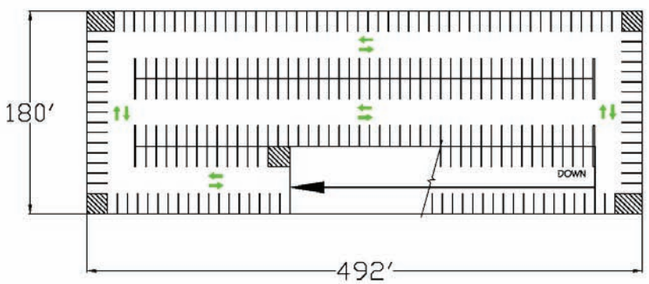
SITE 3B
PARKING CONCEPT



GRADE LEVEL
AREA = 88,560 SQ.FT.
300 SPACES



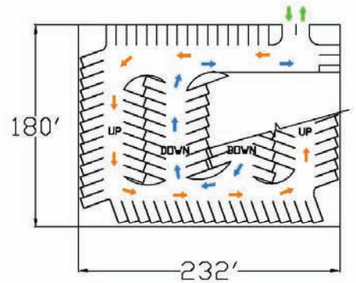
TYPICAL LEVEL
AREA = 88,560 SQ.FT.
310 SPACES



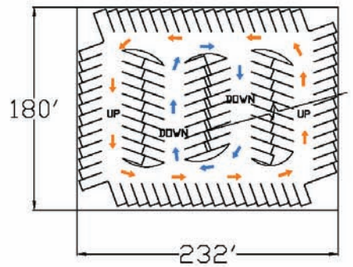
ROOF LEVEL
AREA = 88,560 SQ.FT.
280 SPACES

Exhibit F5:
ETSU Master Plan / Structured Parking Site 4 Concepts

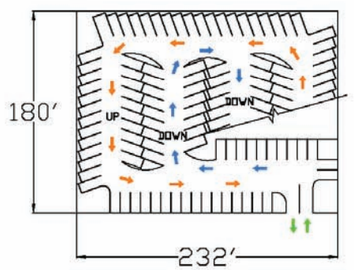
SITE 4
PARKING CONCEPT



GRADE LEVEL
AREA = 41,760 SQ.FT.
85 SPACES



TYPICAL LEVEL
AREA = 41,760 SQ.FT.
120 SPACES



ROOF LEVEL
AREA = 41,760 SQ.FT.
120 SPACES

DESMAN
ASSOCIATES

Exhibit G1:
Sample Job Classifications for Parking & Transportation Administrator

POSITION TITLE: Parking & Transportation Administrator

DEPARTMENT: Office of Facilities

DIVISION: Administration

SALARY RANGE: _____

GENERAL DESCRIPTION:

The Parking & Transportation Manager position is a mid-level management position responsible for the overall management of parking and transportation programs for the East Tennessee State University campus.

ESSENTIAL JOB FUNCTIONS

- Oversees all daily parking & transportation operations. Coordinates operational elements as necessary with the security department and internal parking & transportation staff
- Oversees all special event parking & transportation operations. Coordinates special events elements as necessary with the security department and internal parking & transportation staff
- Coordinates all parking &/or transportation related construction projects and impact of construction on parking and transportation with Facilities and capital project personnel
- Coordinates the administrative activities and assignments for parking & transportation
- Oversees all parking and transportation maintenance in cooperation with central facilities
- Provides parking and transportation related reports as required by College and/or supervisors
- Completes subordinate employee reviews as required by the college
- Develops and recommends department goals and objectives
- Provides leadership and structure for the parking & transportation program through planning and coordinating with both customers groups, peers and subordinates
- Ensures parking and transportation administrative records are properly maintained and directs the preparation of special reports and correspondence related to parking & transportation related activities and services
- Develops departmental budgets in conjunction with divisional management
- Responsible for monitoring all revenues and expenditures for attainment of financial plans and goals
- Recommends Parking & Transportation Fees and Fines

DESMAN
ASSOCIATES

POLICY MAKING AND/OR INTERPRETATION

- Plans, drafts and recommends to the Chief Facilities Officer new and revised policies and procedures for the administration of the parking and transportation system

PROGRAM DIRECTION & DEVELOPMENT

- Identifies , plans, implements and delivers activities and strategies for the efficient and effective operations of the parking and transportation program
- Develops and coordinates actions to achieve the departments strategic goals and objectives
- Communicates department's status and performance levels to the Chief Facilities Officer
- Develops, coordinates and /or implements training and quality assurance programs

SUPERVISION EXERCISED

- Monitors all staffing needs and/or recruiting efforts
- Supervises Parking & Transportation supervisor

LEVEL OF PUBLIC CONTACT

- Contact with Parking patrons on a daily basis
- Serves as liaison to other campus committees and governance organizations
- Coordinates parking and transportation services within the Facilities Department by communicating with other managers in the department
- College wide and campus Facilities department

REQUIRED SKILLS/EDUCATION/TRAINING/EXPERIENCE

- Bachelor's degree in Business Administration, Public Administration or some related field
- 3-5 years supervisory/managerial experience utilizing best practices and principles in the parking and transportation or similar industry
- Demonstrated ability to lead, direct and coordinate activities of a department
- Demonstrated ability to plan and supervise staff
- Excellent analytical, interpersonal, public relations and decision making skills
- Demonstrated ability to use and learn to utilize modern technology to include computer applications such as word processing, spreadsheets, creating presentations, and databases
- Demonstrated ability to create department budgets for both revenues and expenditures

PREFERED SKILLS/EDUCATION/TRAINING/EXPERIENCE

- Certified Administrator of Public Parking (CAPP) Certification
- Experience in using computerized parking and/or transportation management systems
- Demonstrated ability to develop strategic plans
- Demonstrated ability to develop capital budgets
- Experience directing the public bonding process for capital projects

DESMAN
ASSOCIATES

Exhibit G2:
Sample Job Classifications for Parking & Transportation Supervisor

POSITION TITLE: Parking & Transportation Supervisor

DEPARTMENT: Office of Facilities

DIVISION: Administration

SALARY RANGE: _____

GENERAL DESCRIPTION:

The Parking supervisor position is a supervisory position responsible for the overall operations management of parking and transportation programs for the East Tennessee State University campus. In addition the parking supervisor may have to perform the functions of the parking & transportation manager during the absence of the manager.

ESSENTIAL JOB FUNCTIONS

- Field Supervision all daily parking & transportation operations
- Supervises all special event parking & transportation operations
- Supervises all parking &/or transportation related construction projects and impact of construction on parking and transportation
- Supervises and coordinates/performs all parking and transportation maintenance
- Completes subordinate employee reviews as required by the college
- Develops and recommends internal department goals and objectives to the parking & transportation manager
- Assists in developing departmental budgets in conjunction with parking & transportation manager
- Responsible for daily/weekly/monthly reconciliation of all revenues and expenditures

PROGRAM DIRECTION & DEVELOPMENT

- Identifies , plans, implements and delivers activities and strategies for the efficient and effective operations of the parking and transportation program
- Develops and coordinates actions to achieve the departments strategic goals and objectives
- Communicates department's status and performance levels to the Parking & Transportation Manager
- Develops, coordinates and /or implements training and quality assurance programs

SUPERVISION EXERCISED

- Monitors all staffing needs and/or recruiting efforts
- Develops field staff work schedules

LEVEL OF PUBLIC CONTACT

- Contact with Parking patrons on a daily basis, resolving complaints and conflicts that may arise
- Coordinates parking and transportation services within the Facilities Department by communicating with other managers in the department
- Direct supervision and coordination of subordinates in the field

REQUIRED SKILLS/EDUCATION/TRAINING/EXPERIENCE

- 1-3 years supervisory experience utilizing best practices and principles in the parking and transportation or a similar industry
- Demonstrated ability to supervise field activities of a department
- Excellent analytical, interpersonal, public relations and field decision making skills (ability to “think on one’s feet”)
- Demonstrated ability to use and/or learn to utilize modern technology to include computer applications such as word processing, spreadsheets, creating presentations, and databases

PREFERED SKILLS/EDUCATION/TRAINING/EXPERIENCE

- Associates degree in Business Administration, Public Administration or some related field
- Experience in using computerized parking and/or transportation management systems
- Demonstrated ability to reconcile daily revenues and expenditures
- Demonstrated ability to supervise a dynamic operation

Master Plan Appendix C

- Carbon Reduction Plan

East Tennessee State University

Carbon Reduction Plan

January 2010

EAST TENNESSEE STATE UNIVERSITY
...becoming the best regional university in the country.

Introduction

This document is a preliminary summary of East Tennessee State University's efforts at reducing our carbon footprint. It offers the opportunity to take a comprehensive, holistic look at environmental issues—to take a snapshot assessment of where the University is—and to formulate a strategy for further action.

Greenhouse Gas Inventory

An analysis of East Tennessee State University's carbon dioxide emissions (carbon footprint) was conducted for fiscal year 2008-2009. These calculations are necessary in assessing the University's obligations relative to Environmental Protection Agency (EPA) reporting requirements as well as establishing a current status for use in future campus master planning and sustainability goals. This effort was limited to Scopes 1, 2, and 3 as defined by EPA.

Brief Result Analysis

- Scope 1 emissions are below EPA Reporting Rules effective January 2010 (25,000 MT without fleet).
- While coal and natural gas are contributors to the overall CO2 emissions and should still be considered in attempts to reduce emissions, the most significant source of emissions are relative to Scope 2 Sources, specifically electrical power consumption.

Percentages of each CO2 Emission Source

Electrical Power - 54.5% (Scope 2)
Transportation – 23.4% (Scope 3)
Coal – 10.8% (Scope 1)
Natural Gas – 10.5% (Scope 1)
Fleet Vehicles – 0.7% (Scope 1)
Fuel Oil - >0.1% (Scope 1)

Carbon Reduction Recommendations

The Greenhouse Gas Inventory findings showed that the University's most prevalent source of CO2 emissions were from electrical power generation. As ETSU does not generate its own power and must purchase this power from TVA, the only recourse for the University is to reduce energy consumption thru conservation, efficiency and direct renewable energy production. The following recommendations will assist the University in developing a plan of action for reducing our carbon footprint.

Target Reduction Goals

The American Clean Energy & Security Act of 2009 recommends that carbon pollution be reduced by 17% below 2005 levels by 2020, by 42% in 2030 and 83% in 2050. The Act also dictates that new buildings be 30% more energy efficient by 2012 and 50% by 2016. While these targets may be difficult to achieve, ETSU will strive to meet these targets by adopting the following strategies.

-

Efficiency

- Improve the energy performance of existing campus buildings through improvements to their envelopes and building systems (i.e. HVAC, electrical and mechanical upgrades, windows, LED lighting, etc.).
- Assign priorities for improvements based on the energy audit of buildings on campus and on academic program and availability.
- Meter all buildings for water, power, and steam.
- Minimize the use of air-conditioning and heating in campus buildings by increasing/decreasing set points.
- Improve the efficiency of utility systems by upgrading steam lines, etc. as necessary.
- Introduce monitoring and metering devices so that leaks and losses can be readily identified and excessive usage can be curtailed.
- Purchase energy star appliances per State of Tennessee Executive Order 59.

Conservation

- Meet or exceed the minimum standards of the Tennessee Board of Regents Sustainable Design Guidelines for all renovation and new construction projects.
- Continue shifting campus fleet vehicles where appropriate from gasoline or diesel fuels to electric power or hybrid fuel.
- Institute transportation demand management strategies to reduce private vehicular use by faculty, staff, and students.
- Develop and support policies and infrastructure that encourage alternative transportation use (bicycle, mass transit, pedestrian walkways, etc.).
- Encourage behavioral changes for students, faculty, and staff thru educational campaigns, public relations, purchasing standards and written policies.

Direct Renewable Energy Production

- Conduct an alternative energy assessment of the campus to better understand what forms of alternate energy (i.e. geothermal, solar, wind, etc.) are feasible and how best to employ them.
- Investigate the feasibility of solar heating for domestic hot water.

Other

- Develop a detailed 10 year Carbon Mitigation Plan with the assistance of a consultant. Provide an evaluation of potential projects with cost/benefit analysis and simple payback calculations.

CO^2 EMISSIONS CALCULATIONS
EAST TENNESSEE STATE UNIVERSITY
JOHNSON CITY, TENNESSEE

BACKGROUND

Facility Systems Consultants, LLC (FSC) was retained by East Tennessee State University (ETSU) to provide calculations for CO^2 Emissions (a.k.a Carbon Footprint) for Fiscal Year 2008-2009. These calculations are necessary in assessing the University's obligations relative to Environmental Protection Agency (EPA) reporting requirements as well as establishing a current status for use in future campus master planning and sustainability goals. This effort is limited to Scopes 1, 2, and 3 as defined by EPA. These CO^2 emissions are generally considered as the primary Greenhouse Gas Emissions of concern for campuses such as ETSU.

INPUT DATA AND ASSUMPTIONS

In order to keep the emissions calculations to a reasonable level of effort, it is necessary to rely upon previously developed data, standards, available information, and accounts presented by knowledgeable campus personnel. The following are pertinent assumptions and reference data;

- Tennessee Board of Regents, Office of Facilities Development, Energy Consumption Report, East Tennessee State University, FY 2008-2009.
- ETSU Parking and Access Study, Desman Associates, 2008.
- eGRID2007 Version 1.1 Year 2005 GHG Annual Output Emission Rates
- For Scope 3 emissions, travel information is not tracked by the University. Further, by comparison with other similar institutions, this component is consistently quite insignificant. For this reason, these emissions will not be considered.

CALCULATIONS

Scope 1 Sources (Directly Controlled Emissions created by entity's operations or entity-owned assets)

Natural Gas Use:

114,462,000 CF x 0.12 lbs CO^2/CF x ton/2,000lb x .907MT/ton = 6,229 MT

Coal Use:

2,479 Tons x 5675.29 lbs CO^2/ton x ton/2,000 lb x .907MT/ton = 6,380 MT

Oil Use (#2):

27,342 gallons x .077MMBtu/gallon x 159.66 lbs CO^2/MMBtu x ton/2,000lb x .907MT/ton = 15 MT

Fleet:

50,000 gallons (estimated) x 19.37 lbs CO^2/gallon x ton/2,000lb x .907MT/ton = 439 MT

Total: 6229 + 6380 + 15 + 439 = 13,063 MT

Scope 2 Sources (Indirectly Controlled Emissions)

Electricity Use:

47,084,125 kWh x 1.51 lbs CO^2/kWh x ton/2,000lb x .907 MT/ton = 32,243 MT

Scope 3 Sources (Commuting, Travel, Etc.)

Students:

13,182 students x 86% x 2 trips/day x 120 days/yr x 7 mi/trip / 22.10 mi/gallon = 861,780 gallons
13,182 students x 4% x 2 trips/day x 120 days/yr x 7 mi/trip / 22.10 mi/gallon = 40,082 gallons
4,722 students x 100% x 2 trips/day x 60 days/yr x 7 mi/trip / 22.10 mi/gallon = 179,478 gallons
132 bus passengers x 41 trips/day x 120 days/yr x 9 mi/trip / 39.67 mi/gallon/passenger = 147,339 gallons

Faculty/Staff:

2,987 faculty-staff x 91% x 2 trips/day x 150 days/yr x 7 mi/trip / 22.10 mi/gallon = 258,287 gallons
2,987 faculty-staff x 2% x 2 trips/day x 150 days/yr x 7 mi/trip / 22.10 mi/gallon = 5,677 gallons
60 bus passengers x 41 trips/day x 150 days/yr x 9 mi/trip / 39.67 mi/gallon/passenger = 83,715 gallons

Emissions:

1,576,358 gallons x 19.37 lbs CO^2/gallon x ton/2,000lb x .907MT/ton = 13,847 MT

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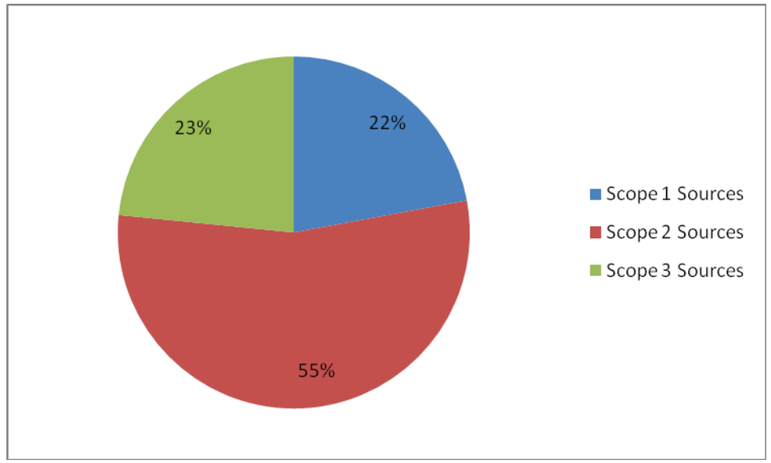
RESULTS ANALYSIS (BRIEF)

- The following Chart represents the percentage of emissions by Scope;

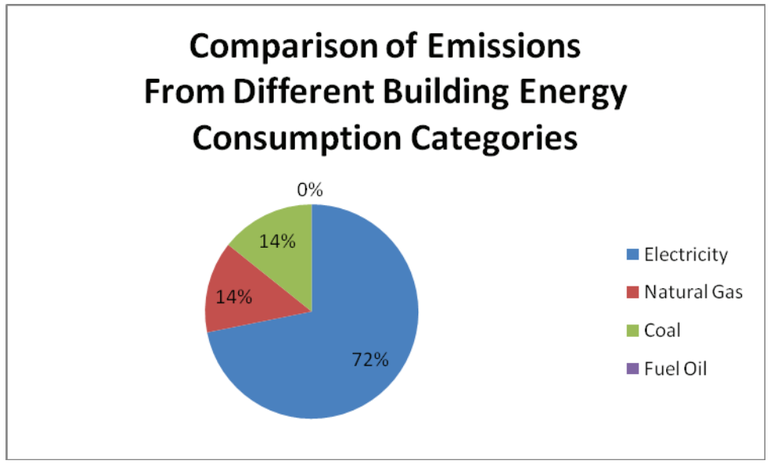


- Scope 1 Emissions are below EPA Reporting Rules effective January 2010 (25,000 MT without Fleet)

- While Coal and Natural Gas use are contributors to the overall CO^2 Emissions and should still be considered in attempts to reduce emissions, the most significant source of emissions are relative to Scope 2 Sources, specifically Electrical power consumption. Percentages of each are included herein:

  Electrical Power – 54.5%
  Coal – 10.8%
  Natural Gas – 10.5%
  Commuting/Travel Vehicles – 23.5%
  Fleet Vehicles – 0.7%
  Fuel Oil – >.1%

- Generally, most of the emissions attributed to commuting and travel are more difficult to estimate, track, and control. When attempting to reduce these emissions, efforts are more commonly made to reduce building energy consumption. These are the emissions from Scope 2 and nearly all of Scope 1. A breakdown of these emissions, by percentage can be observed in the chart below;



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East Tennessee State University
2010 Master Plan Update By:

FISHER **+** ***Associates***
511 Tusculum Boulevard
Greenville, Tennessee 37745
Tel. (423) 638.9900