

NASHVILLE STATE COMMUNITY COLLEGE MASTER PLAN

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Nashville State Community College

NASHVILLE STATE 2017 MASTER PLAN



This plan was prepared by TSW, in association with SSR engineers. The planning team would like to thank the Tennessee Department of Labor for their assistance in providing regional labor data.





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Executive Summary

Nashville State serves the most populous metropolitan region in Tennessee and has been the fastest growing public community college in the state over the past decade, due in part to rapid population growth within its service area. Its wide variety of academic programs served 11,653 (headcount) students total in Fall 2015.

While the existing amount of space is adequate on both the Main Campus and the Southeast Campus, there is a need for additional teaching, office, and other space types on the Clarksville Campus, as well as a need for additional parking on that site. A plan for expansions at this campus is shown on page 9. This plan would meet space and parking needs projected through enrollment growth benchmark 2, as shown in the table on this page. Projections show that growth will continue to decline on the Main Campus as students are captured by other existing Nashville State campuses and proposed new satellite campuses in locations that better serve existing and future students.

A demographic study conducted as part of this Master Plan and summarized on pages 18-24 examined areas of high educational need as shown in the map on the following page. A number of conclusions can be drawn from the regional demographic data:

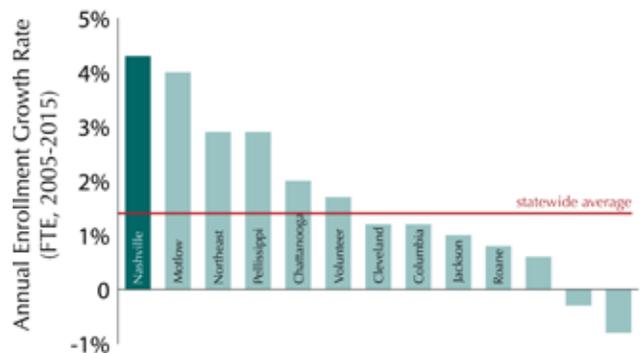
- Population growth is projected to be strong in the region in the coming years, especially in the Clarksville area.
- Population density is and will continue to be highest in central and eastern Davidson County. Low wage job density is highest west of downtown Nashville.
- There is a need for postsecondary education in the service area, particularly in and north of Clarksville and in central and southeastern Davidson County, areas well served by existing campuses.
- Nashville State's low participation rate relative to other Tennessee community colleges indicates the potential for growth.
- There are a significant number of competing institutions in Davidson County, but Nashville State's low tuition makes it competitive.
- There is potential demand for new campuses in eastern and northeastern Davidson County, as well as in Stewart or Houston County.

This Master Plan recommends the creation of two new Nashville State campuses within Davidson County to capture the need for additional higher education credentials, one in the eastern portion of the county, and another in the northeastern portion of the county.



Nashville State has continued to provide a high quality education despite significant enrollment growth

Statewide Growth Rate Comparison



Over the past decade, Nashville State has been the fastest growing public community college in Tennessee

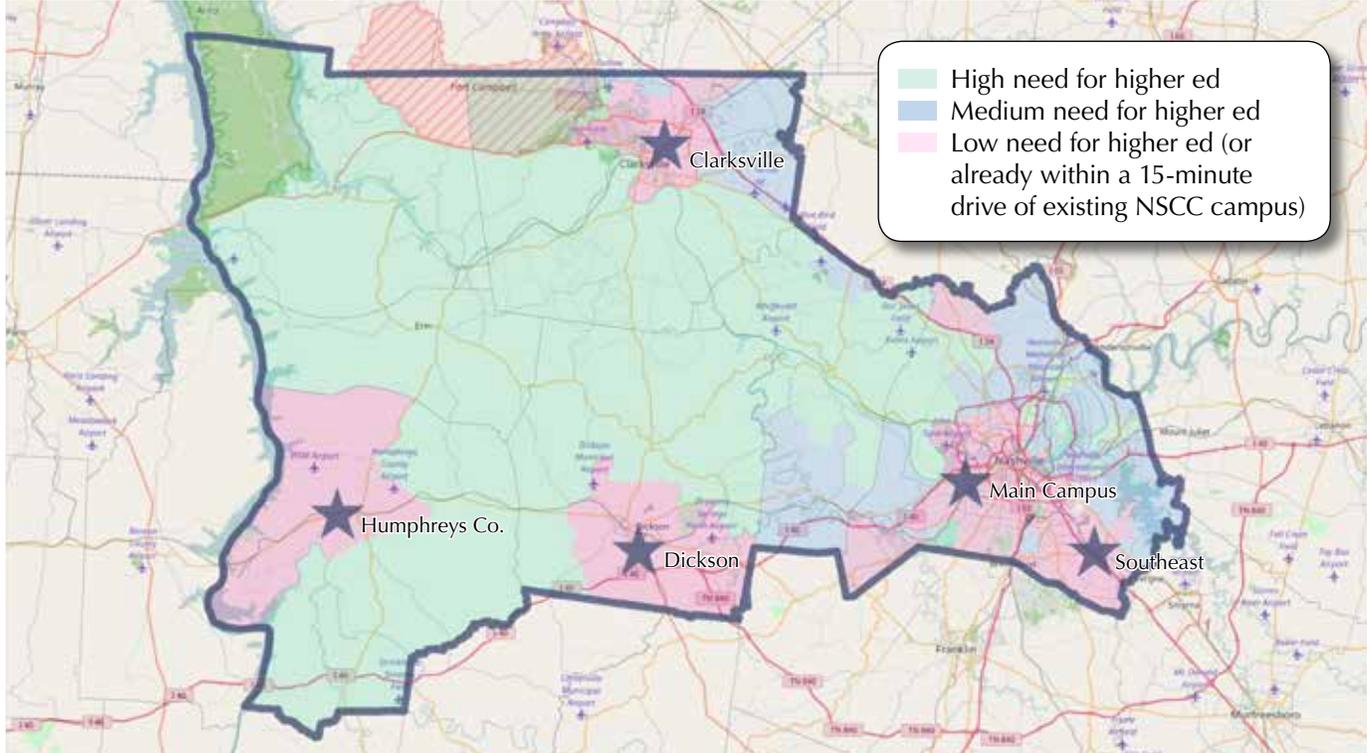
Table 4a: Enrollment Growth Benchmarks (FTE)

Campus	Fall 2015	Benchmark 1	Benchmark 2
Main	3,622	3,550	3,450
Clarksville	447	570	660
Dickson	190	220	250
Humphreys	292	292	292
Southeast	882	1,100	1,300
East Davidson County*	0	195	503
North Davidson County*	0	270	575
Total	5,433	6,197	7,030

*Proposed

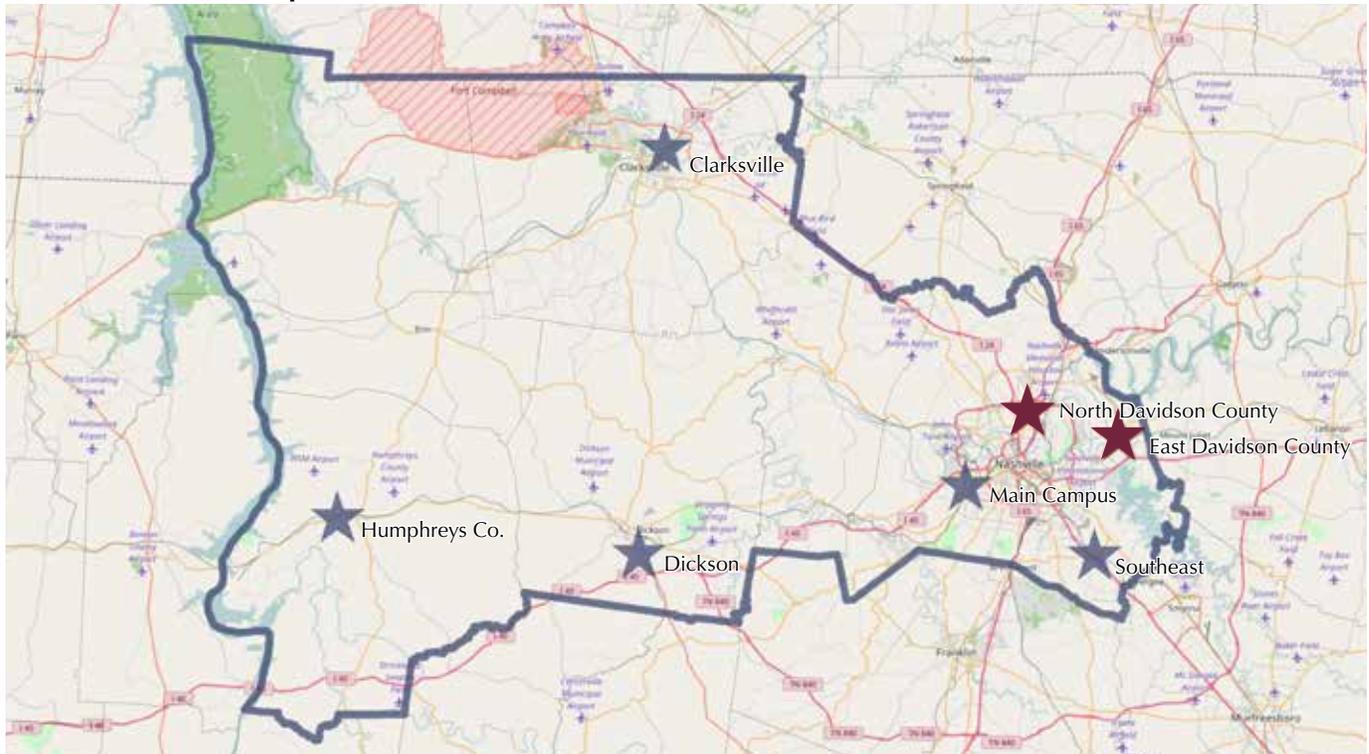
These campuses could be housed in leased or owned spaces. Care should be taken to make sure their final locations correspond with the areas of need, and are located sufficiently far from the Main Campus to avoid competition. General academic programs and estimated space needs for each campus are shown on page 69.

Unreached Areas with High Need for Postsecondary Education



Areas show census tracts with high numbers of residents who have a high school diploma or equivalent, have not started college, and do not live within a 15-minute drive of an existing NSCC campus
 Source: U.S. Census American Community Survey 2013 data
 Map © OpenStreetMap (and) contributors, CC-BY-SA

Potential Satellite Campus Locations



All proposed campus locations shown are approximate
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Clarksville Campus Master Plan



I. History & Overview

College History

Historically, the site of Nashville State's Main Campus was used by Thayer Memorial Veterans Administration Hospital, which was established in 1943 to treat wounded World War II soldiers in single-story buildings. Some remnants of the original site layout can still be seen today. In the 1960s, the hospital was relocated and the federal government transferred the property to the State of Tennessee. In 1968, the Nashville Area Vocational Technical School (now the Tennessee College of Applied Technology Nashville) opened on a portion of the property, where it remains today.

In 1970, Nashville State Technical Institute opened on the site, offering five Associate degrees to 398 students in its first year. The campus consisted of four buildings: A, B, C (now W), and D. The A and B Buildings served as the main instructional area, while the C Building functioned as the main focal point and housed the original library. The D Building connected to the C Building via a colonnaded courtyard with food services. Building E opened in 1975. The Clement Building was added in 1979 to provide additional office and instructional space.

The main campus grew quickly in the 1980s. In 1984, Nashville State became part of the Tennessee Board of Regents system. The new Kisber Library (Building K), constructed in 1988, created a new focal point for the campus and departed for the first time from the linear arrangement of previous buildings. In 2002, Nashville State expanded its mission to become a comprehensive community college, changing its name to Nashville State Community College. In 2011, major renovations were completed in a number of buildings.

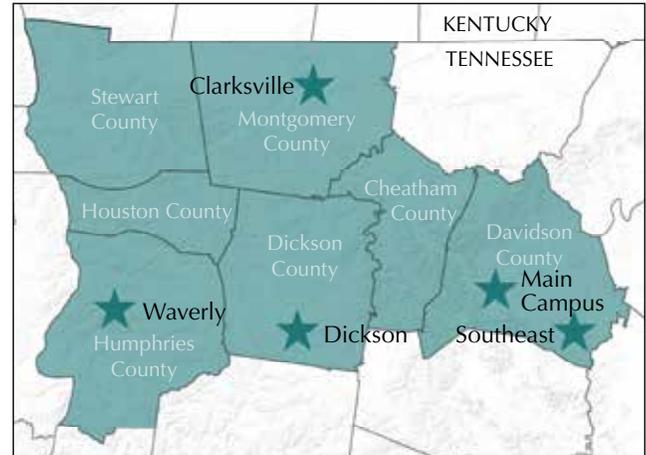
An increase in student enrollment, combined with a mission to better serve Middle Tennessee, has led Nashville State to establish additional campus locations, described below.

Previous Master Plan

The most recent master plan was prepared by Comprehensive Facility Planning in 2001 and is shown on the following page. The plan anticipated an enrollment target of 4,500 FTE students and called for major renovations of existing buildings and the construction of two new buildings—one to accommodate more classroom and office space, and another to house student services. The plan also recommended the construction of an athletic building and outdoor athletic facilities to the east of the library.

Several recommendations of the 2001 Master Plan have been implemented, including the construction of

Figure 1a: Location of Existing Campuses



Nashville State currently has five campuses within its seven-county service area

the two new buildings, which have not only provided additional teaching and other space, but have also created a true campus feel by converting parking lots into a quadrangle. Parking expansions and the addition of monumental signage have also been implemented as recommended in the 2001 Master Plan. The envisioned athletic facilities were not constructed, and some proposed renovations have not yet occurred.

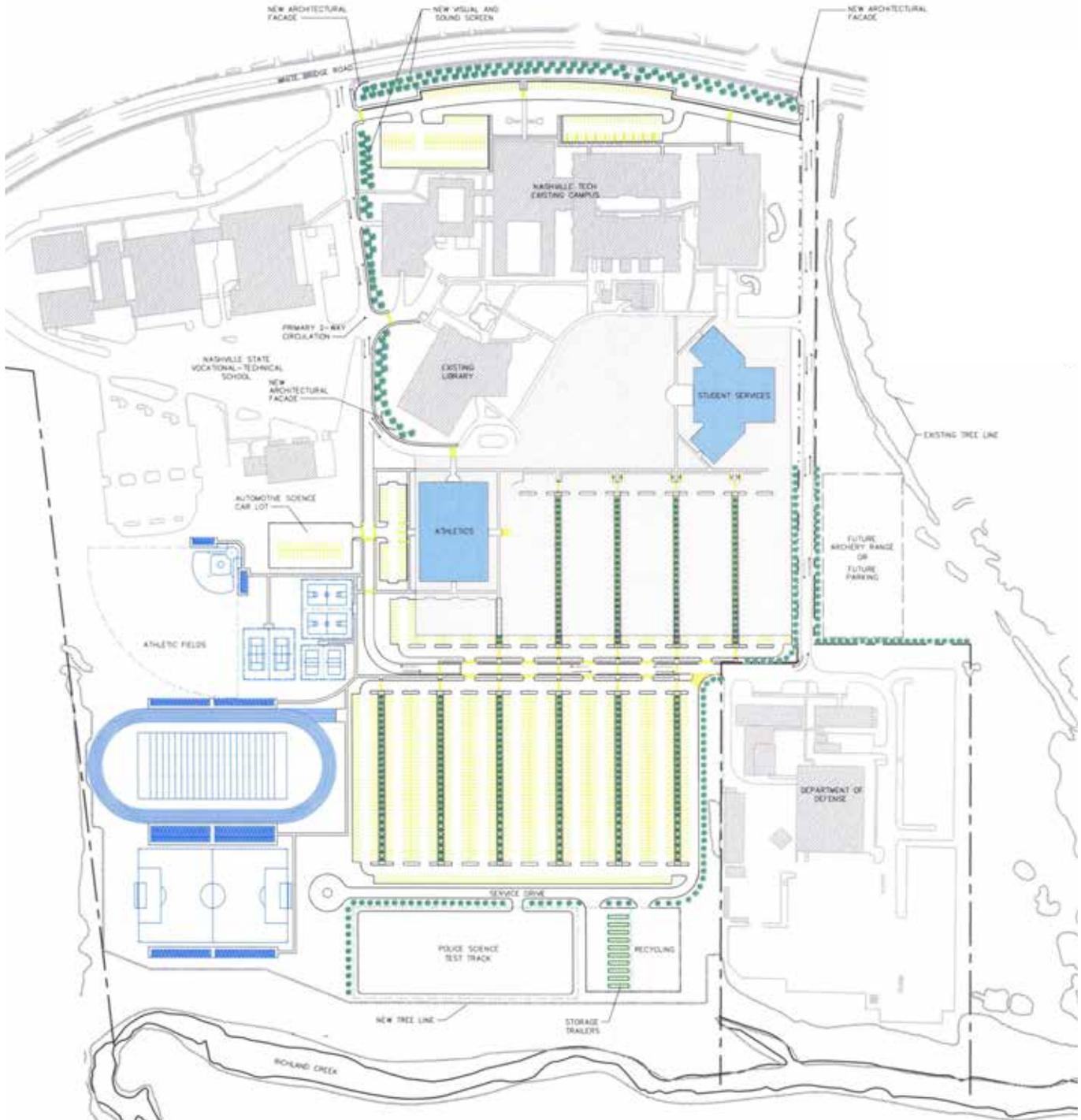
Overview

Nashville State Community College has five campuses, including the Main Campus on White Bridge Road in Nashville. These campuses are described below and shown on the map in Figure 1a. The Main Campus, Southeast, and Clarksville campuses are state-owned. The Waverly campus in Humphries County is leased from the county. Nashville State also offers classes at twenty high schools or other sites throughout its service area.

The total enrollment in Fall 2015 on all campuses was 11,653 (headcount) and 6,204 (FTE), including the Cookeville Campus which is no longer part of Nashville State. The pie chart on the following page shows that nearly three-fourths of students take classes on either the Main or Southeast Campus, both of which area located in Davidson County.

According to the 2014-2015 Tennessee Board of Regents Fact Book, Nashville State has the highest percentage of part-time students of any community college in the state. It also has a significantly higher percentage of African-American and Hispanic students compared to the statewide average for public community colleges. Non-traditional students make up 46% of Nashville State's enrollment, also significantly higher than the 32% statewide average.

Figure 1b: Previous Master Plan



Main Campus

The Main Campus is located on property that consists of approximately 81 acres and is shared with the Tennessee College of Applied Technology Nashville. The campus is located on White Bridge Road, about a mile north of West End Avenue, and only five miles west of downtown Nashville.

The Main Campus has a suburban setting, with single-family detached homes at the northern end of the campus, as well as to the west across White Bridge Road. The rear (eastern edge) of the campus is formed by Richland Creek. (A National Guard facility is also located at the rear of the campus on a separate parcel.) South of the campus is TCAT Nashville and a mix of offices, restaurants, and retail.

The Main Campus is Nashville State's only site with a true campus feel. This is due to its internal quadrangle, framed by two new buildings. The Main Campus had a Fall 2015 enrollment of 3,622 full-time equivalent (FTE) students and includes 251,500 square feet of assignable building space.

Southeast Campus

The Southeast Campus, which opened for classes in Fall 2012, is located in Antioch (within Davidson County) in a portion of the former Hickory Hollow Mall, clearly visible from I-24. The site is five miles south of Nashville International Airport and 11 miles southeast of downtown Nashville.

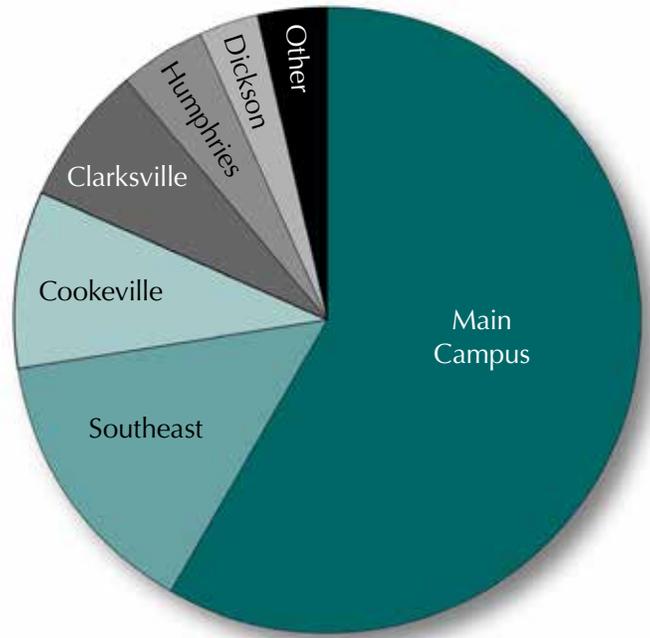
Most of the former shopping mall is under private ownership and currently vacant, but the State owns a former department store building connected to the mall, as well as the parking surrounding it, on a parcel totaling approximately nine acres. This campus had a Fall 2015 enrollment of 882 full-time equivalent (FTE) students and includes 70,400 square feet of assignable building space.

Clarksville Campus

The Clarksville Campus, which opened for classes in Fall 2012, is located on Wilma Rudolph Boulevard, just under three miles east of downtown Clarksville, and four miles west of I-24. This campus is about an hour's drive from the Main Campus, six miles from the Kentucky state line, and nine miles from Fort Campbell.

This campus consists of a single state-owned building that formerly housed a Saturn automotive dealership and was renovated for Nashville State. This suburban

Figure 1c: Proportion of FTE Student Enrollment at each Campus in Fall 2015



The two newest buildings on the Main Campus frame a quadrangle



A former department store was renovated to create space for Nashville State's Southeast Campus

site is surrounded by sprawling businesses, shops, and restaurants.

The Clarksville Campus had a Fall 2015 enrollment of 447 full-time equivalent (FTE) students and includes 13,400 square feet of assignable building space.

Dickson Campus

The Dickson Campus is located approximately three miles southeast of downtown Dickson and approximately 34 miles west of Nashville. It is located in a building called the Renaissance Center and owned by Freed-Hardeman University, a portion of which is leased to Nashville State. Nashville State's Fall 2015 enrollment on this campus was 190 full-time equivalent (FTE) students.

Waverly Campus

The Waverly Campus is located in a rural setting in Humphries County, approximately 60 miles west of Nashville. This facility is leased from Humphries County and had a Fall 2015 enrollment of 292 full-time equivalent (FTE) students.



The Clarksville campus is located in a single building

Existing Academic Programs Offered

Nashville State offers a very wide array of academic programs, both Associates Degrees and Technical Certificates. Many Associates Degree programs are designed as transfer programs, with coordinated courses that allow students to complete their studies at a four-year college. All programs fall into six academic divisions: Business & Applied Arts; Computer & Engineering Technologies; English, Humanities, Arts, and Languages; Math & Natural Sciences; Nursing; and Social & Life Sciences. Table 1a lists all degree and certificate programs currently offered by Nashville State.

Table 1a: Two-Year Degrees Offered

Associate Degree Programs
Accounting
Administrative Professional Technology
Architectural, Civil & Construction Engineering Technology
Business
Computer Information Technology
Culinary Arts
Early Childhood Education
Electrical Engineering Technology
General Technology
Health Sciences
Healthcare Management
Industrial Process Control Technology
Law Enforcement
Nursing
Occupational Therapy Assistant
Paralegal Studies
Visual Communications

Table 1b: Certificate Programs Offered

Technical Certificates
3D Design & Graphics
Accounting
Administrative Assistant
Central Processing Technology
CAD
Culinary Arts
Early Childhood Education
Healthcare-IT Medical Management
Homeland Security
Industrial Electrical Maintenance
Information Security
Law Enforcement
Logistics
Mechatronics
Medical Coding
Music Technology
Photography
Supply Chain
Surgical Technology
Transportation
Web Page Authoring

Table 1c: Transfer Degrees Offered

Transfer Degrees
Accounting
Art (Studio)
Biology
Business Administration
Chemistry
Child Development and Family Relations
Civil Engineering
Computer Science
Criminal Justice
Early Childhood Education (Pre K-3 & K-5 Education)
Economics
Electrical Engineering
Elementary Education
English
Exercise Science
Finance
Foreign Language
Geography
Healthcare Management
History
Information Systems
Management
Marketing
Mathematics
Mechanical Engineering
Middle Grades Education
Music
Philosophy
Physics
Political Science
Pre-Engineering
Pre-Health Professions
Pre-Industrial Technology
Pre-Law
Pre-Nursing
Pre-Occupational Therapy
Pre-Physical Therapy
Psychology
Secondary Education
Social Work
Sociology
Special Education
Speech Communication

Demographic Context

Master planning should not occur in isolation, but should be informed by an institution’s regional context and demographic trends. Foremost among these is the forecasted population growth in the service area.

The table at right shows the projected population growth over the next decade by county in the Nashville State Community College service area. Montgomery County is projected to be the second fastest growing county in the state between 2015 and 2025. Davidson and Dickson Counties are also projected to be in the top quartile of growth during that period. Overall, Nashville State’s seven-county service area is expected to add 141,379 residents over the next decade.

The map on the top of the following page shows projected population growth over a shorter time horizon (2014-2019), but at the census tract level. This shows that, percentage wise, population growth is projected to be concentrated in Montgomery County (outside of central Clarksville) and various areas within Nashville-Davidson County.

These trends suggest that the existing campuses in Davidson and Montgomery counties are well poised to capture projected population growth, although there is potential for new campuses, as discussed below.

Participation Rate

Nashville State’s participation rate is a measure of its market penetration and is expressed as its total full-time equivalent enrollment divided by the percentage of the population in its service area. The actual number is less important than where the college stands in comparison to its peers, and how the participation rate varies throughout the service area.

As shown in the figure at right, Nashville State has one of the lowest participation rates in the Tennessee Board of Regents community college system. This could be due to a number of factors, including the presence of competing institutions, although most other urban community colleges (which also have significant competition) have higher participation rates.

Within its service area, Nashville State’s participation rates vary, as shown in the map on the following page. This map is based on the home residence of current students on all campuses. Darker areas indicate zip codes where a higher percentage of the population is enrolled at Nashville State. In general, participation is highest in Humphreys and Dickson Counties and lowest in Stewart County. A mix of lower and higher rates is observed in Nashville-Davidson County.

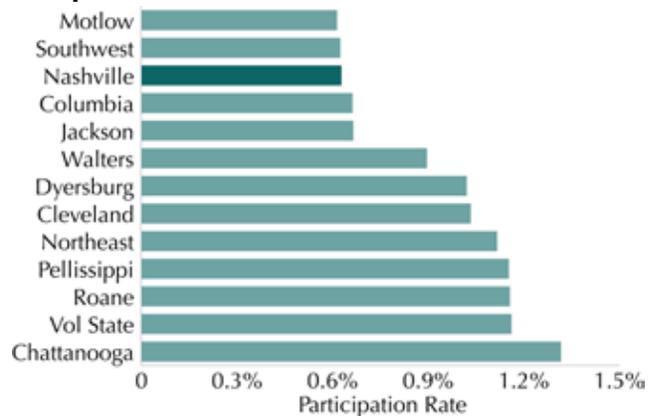


Future enrollment and graduation rates are tied in part to regional demographic trends

Projected Population Growth (2015-2025)

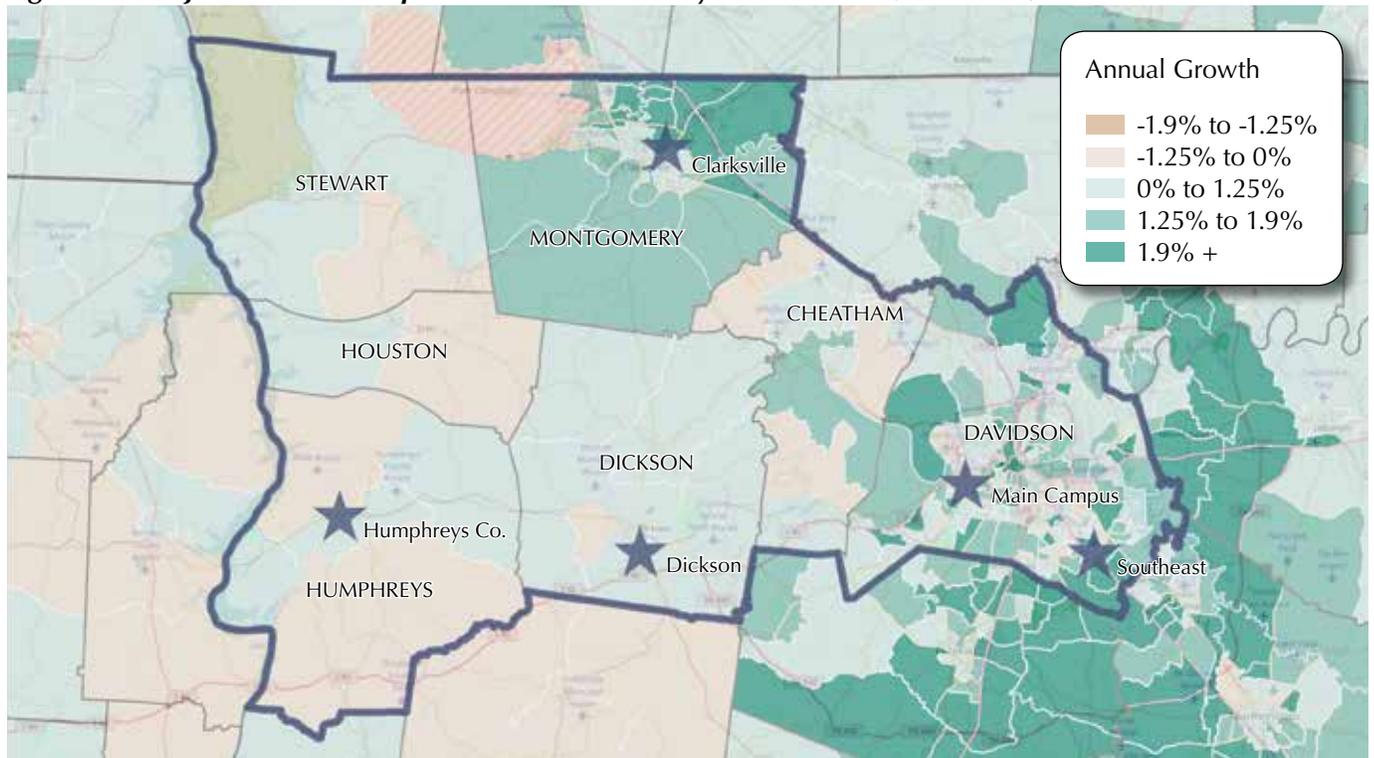
County	Average Annual Growth	Projected Population Increase
Cheatham	0.5%	2,065
Davidson	1%	81,407
Dickson	1%	6,143
Houston	0.8%	686
Humphreys	0.2%	455
Montgomery	2%	49,710
Stewart	0.5%	913
Total		141,379

Tennessee Community College Participation Rate Comparison



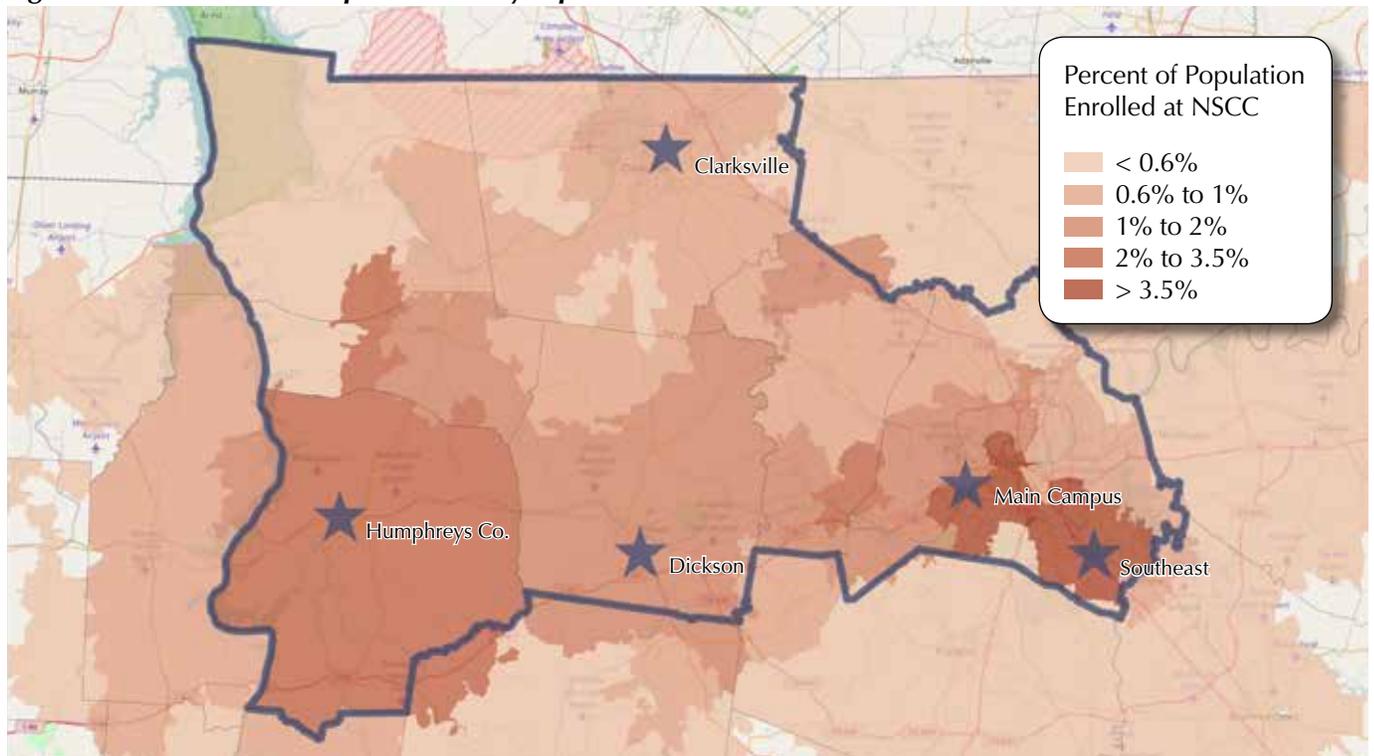
Source: 2014 U.S. Census population estimates, Tennessee Board of Regents Fall 2015 full-time equivalent enrollment

Figure 1d: Projected Annual Population Growth Rate by Census Tract (2014-2019)



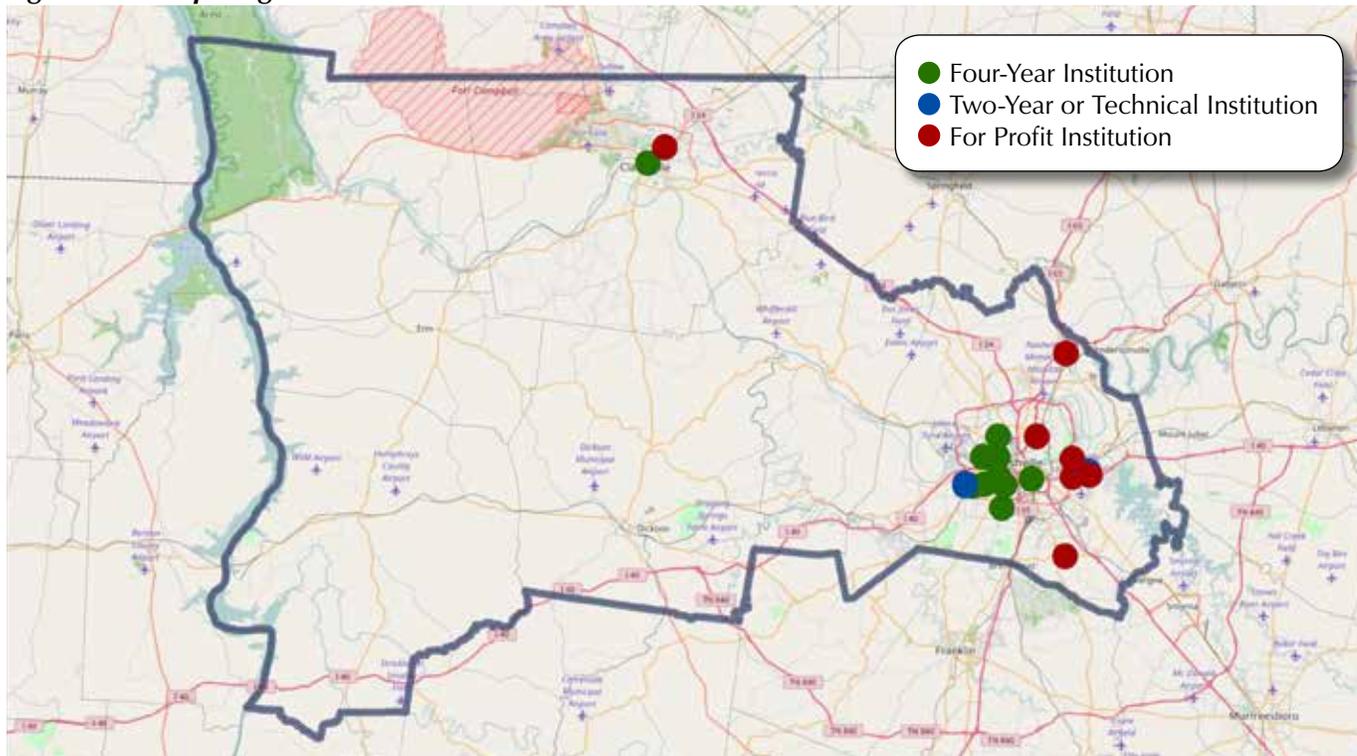
Source: ESRI data © 2014
 Map © OpenStreetMap (and) contributors, CC-BY-SA

Figure 1e: Fall 2015 Participation Rate by Zip Code



Based on fall 2015 enrollment data and 2012 population data
 Source: NSCC & U.S. Census, Map © OpenStreetMap (and) contributors, CC-BY-SA

Figure 1f: Competing Institutions



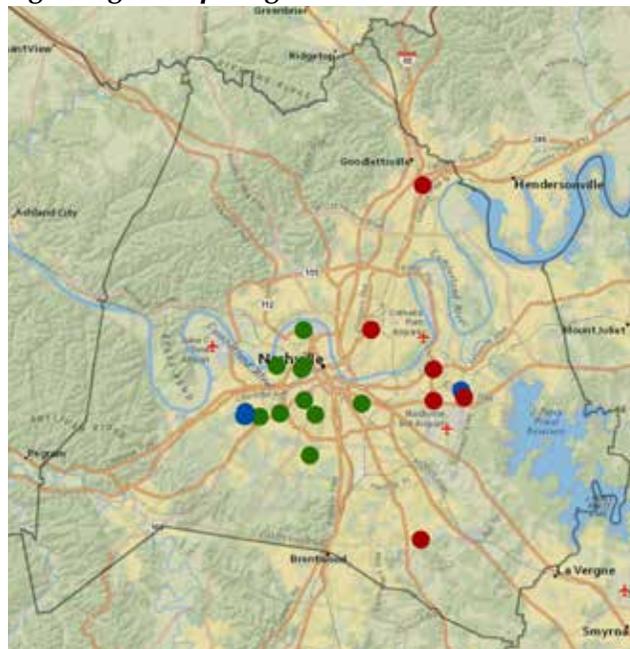
Source: USGS, TBR
Map © OpenStreetMap (and) contributors, CC-BY-SA

Competing Institutions

The maps on this page show the location of all institutions offering postsecondary education on physical campuses within Nashville State’s service area, excluding institutions with enrollment less than 50. Unsurprisingly, the map shows a large concentration of institutions within Nashville-Davidson County, and few competitors in rural areas.

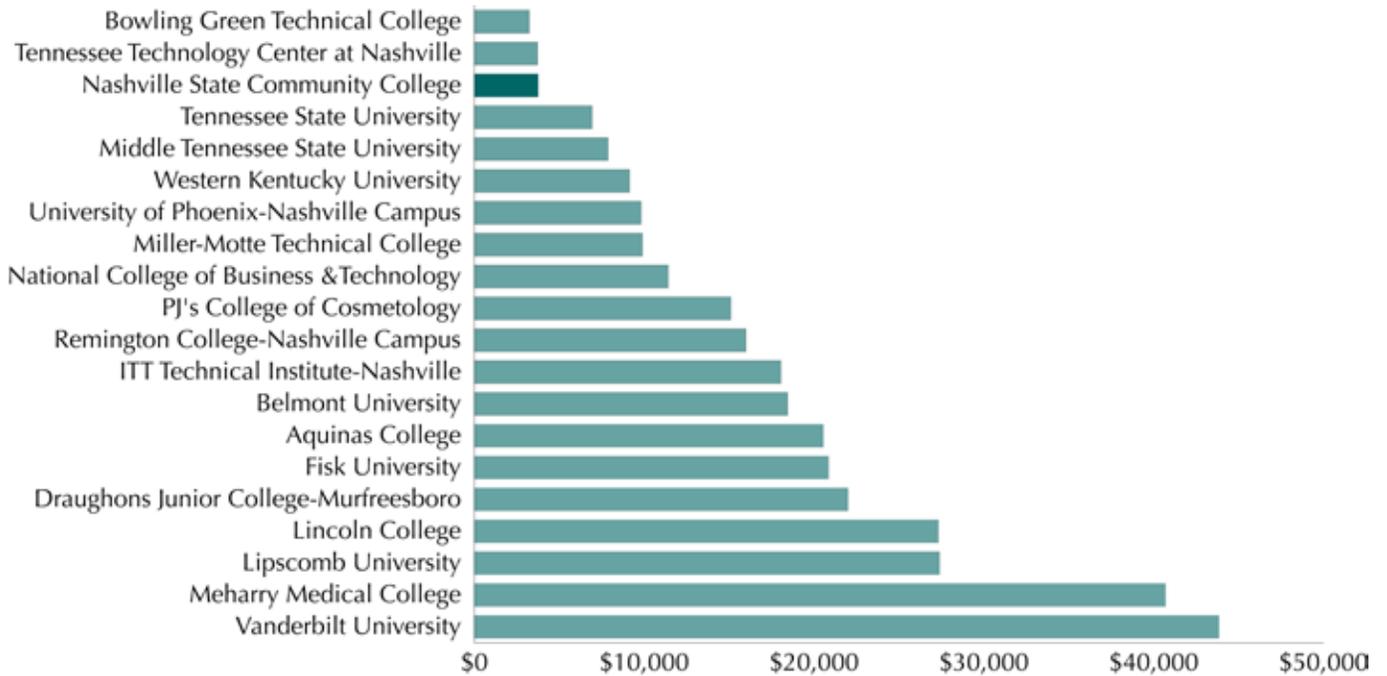
Many potential competitors in the region are not actual competitors because of different academic missions, but among its peers, Nashville State has the lowest tuition of any institution except for the Tennessee College of Applied Technology and Bowling Green Technical College in Kentucky. A tuition comparison is shown in the chart on the following page.

Figure 1g: Competing Institutions: Davidson Co.



Source: USGS, TBR
Map Sources: National Geographic, ESRI, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment-P Corp.

Figure 1h: Tuition Comparison of Postsecondary Institutions in the Region



Data Source: National Council for Educational Statistics College Navigator

Population Distribution

The map on the following page shows the distribution of population in and near the service area. Not surprisingly, population is concentrated in Nashville-Davidson County, with a secondary concentration around Clarksville. Approximately two-thirds of the population of the region lives in Nashville-Davidson County, even though it accounts for only about one-fifth of the land area of the region.

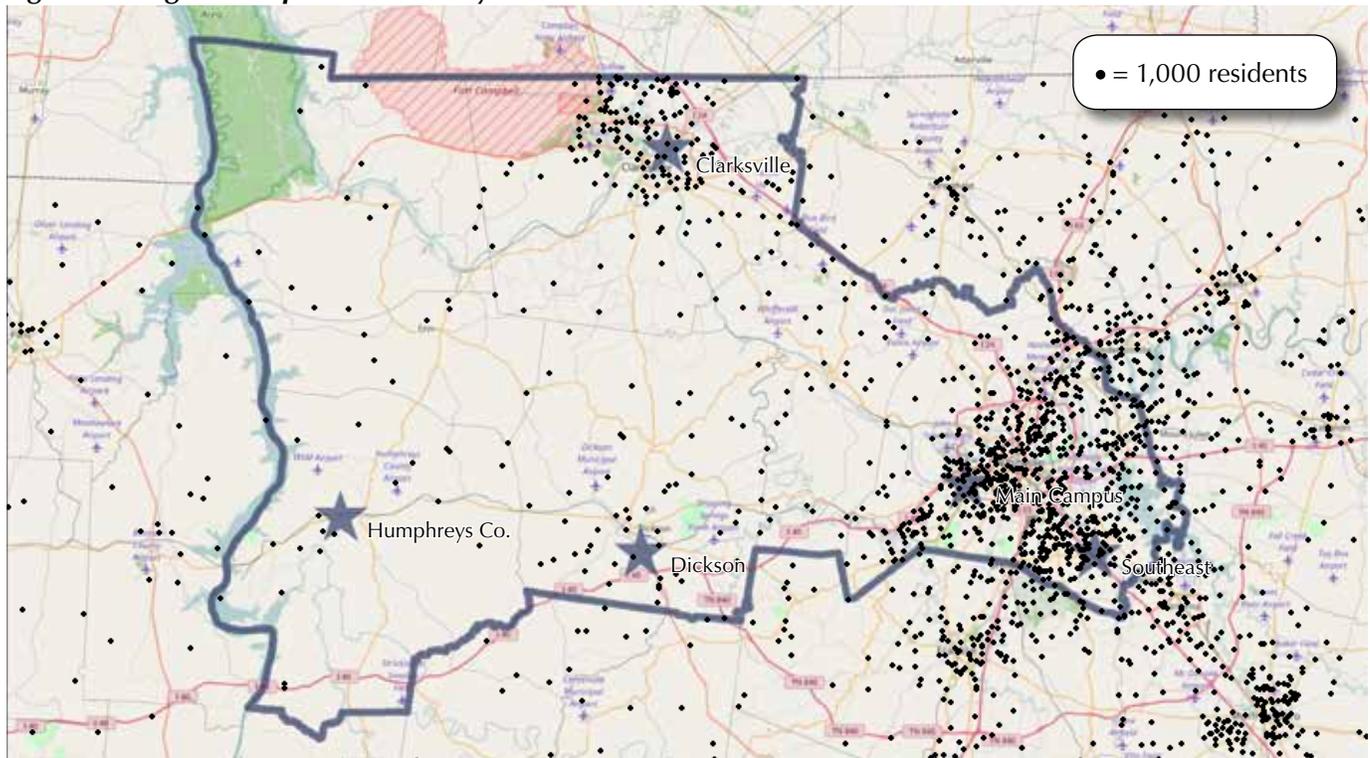
The concentration of residents who have completed high school or have a GED, but have not yet started college, shows a similar pattern in the map on the bottom of the following page. This further underscores the demand for higher education in and north of Clarksville, as well as in central, northeastern, and southeastern Davidson County. The existing Nashville State campuses in these areas are well positioned to meet this demand.

Job Concentrations

According to the 2011-12 National Postsecondary Student Aid Study, 69% of community college students work while in college. For this reason, it is important to understand the distribution of job locations in the region as well as population distribution. Many Nashville State students commute between work and campus as well as between their home and campus.

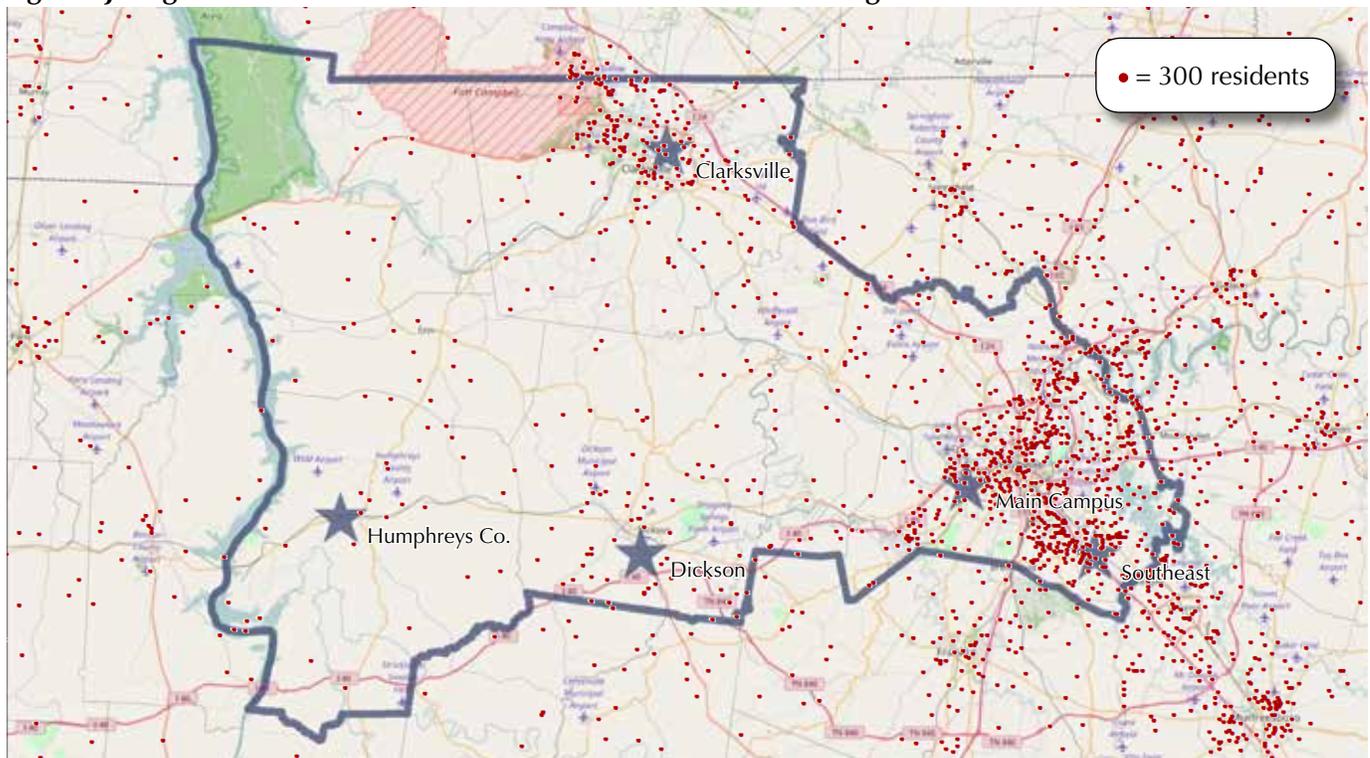
The map on page 23 shows the concentration of jobs with wages of less than \$1,250, assuming that students lack the credentials to obtain higher paying jobs before graduation. The existing main campus location is in excellent proximity to the largest concentration of low-wage jobs in the region.

Figure 1i: Regional Population Density



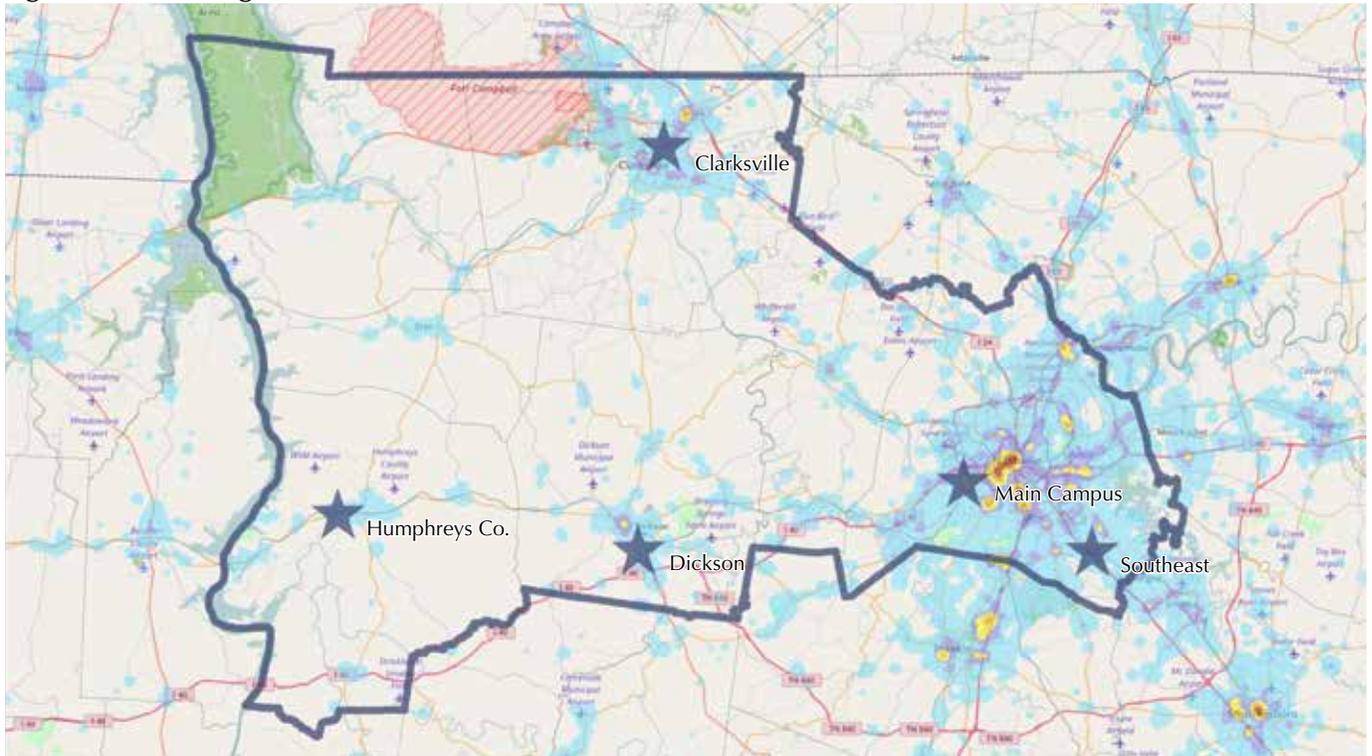
Dot locations are approximate based on census tracts
Source: U.S. Census American Community Survey 2013 data
Map © OpenStreetMap (and) contributors, CC-BY-SA

Figure 1j: High School Graduates Who Have Not Yet Attended College



Each dot represents 300 residents who have completed high school (or equivalent), but not yet attended any college
Dot locations are approximate based on census tracts
Source: U.S. Census American Community Survey 2013 data
Map © OpenStreetMap (and) contributors, CC-BY-SA

Figure 1k: Low Wage Job Concentrations



2013 data showing all jobs with wages of less than \$1,250 per month
Source: U.S. Census, Map © OpenStreetMap (and) contributors, CC-BY-SA

Postsecondary Educational Need

It is difficult to define or measure the “need” for postsecondary educational credentials in a given area. Diverse factors, several of which are shown on the previous pages, contribute to the need for higher education.

Perhaps the single best measure of need for higher education is the percentage of residents who have graduated high school or have a GED, but have not yet started college. The map at the top of the following page shows the service area divided into areas of low, medium, and high need for higher education. (Areas within a 15-minute drive of existing campuses are excluded even if they show a high need, assuming that residents already have access to Nashville State.) Areas with a high proportion of residents in this category show up as green, indicating the potential for additional market capture by Nashville State.

The largest area showing high need for higher education is the rural portion of Nashville State’s service area. Approximately 92% of the population in the service area already lives within a half-hour drive of an existing Nashville State owned campus, but there is potential to reach the remaining 8%, as shown by the large green area. Assuming a participation rate similar to the existing Nashville State participation rate

outside of Davidson County, there is a potential to reach approximately 750 full-time equivalent students, which would expand overall enrollment by 12%.

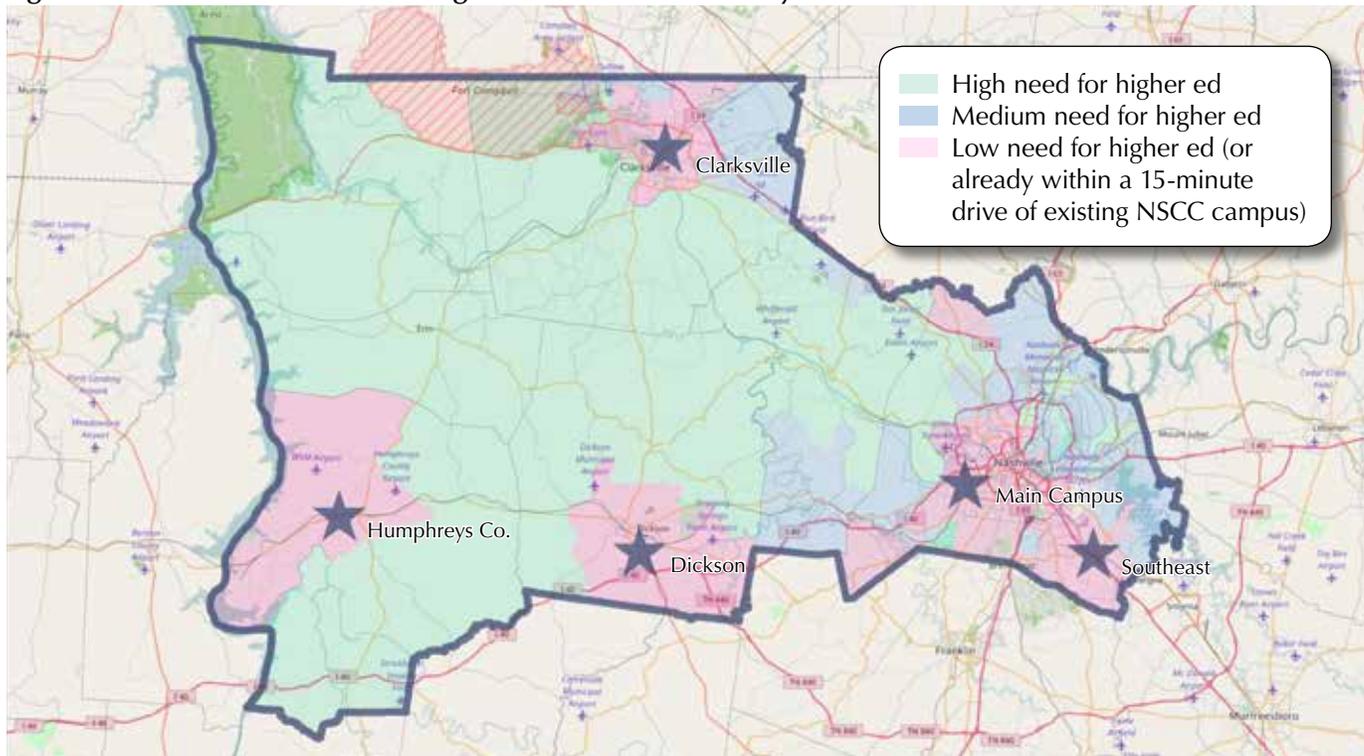
In more urban areas, central and southeastern Davidson County and the area in and north of Clarksville show the highest educational need. These areas are already well served by existing campuses, so there is potential to reach additional students in these areas and serve them at existing campuses.

Potential New Campus Locations

In order to meet the need for additional higher education credentials within the service area, the following areas have been identified for potential new campus locations, in addition to the proposed expansions recommended at the Clarksville location. The eastern and northeastern areas of Davidson County are immediate priorities for the college and are discussed further on pages 69-70. For all sites, it may be advisable to lease or construct a small amount of space until academic programs have solidified and the demand for enrollment is proven.

- **North Davidson County.** A new location in this area could attract potential students in the 31E corridor and adjacent areas, where there is a significant concentration of residents in need of a college

Figure 11: Unreached Areas with High Need for Postsecondary Education



Areas show census tracts with high numbers of residents who have a high school diploma or equivalent, have not started college, and do not live within a 15-minute drive of an existing NSCC campus

Source: U.S. Census American Community Survey 2013 data

Map © OpenStreetMap (and) contributors, CC-BY-SA

education, as well as a concentration of low wage jobs. The northeastern portion of the county shows a greater need, lower participation rate, and higher population growth projections, in addition to being farther from the Main Campus to avoid competition, but care should be taken to avoid a location near the county line to minimize competition with Volunteer State Community College.

- **East Davidson County.** A new location in this area could draw from the significant number of residents in need of higher education. It should be far enough north of the Southeast Campus to avoid any competition. There is significant need, a moderate participation rate, and some job concentration in this part of Davidson County.
- **Stewart/Houston County.** A new location in this area could help capture a significant number of new students who are not within a 30-minute drive of an existing Nashville State campus. While population and job density are low and population growth projections are moderate, demographic factors indicate the presence of a significant number of residents in need of higher education.

Conclusions

A number of conclusions can be drawn from the regional demographic data summarized here.

- Population growth is projected to be strong in the region in the coming years, especially in the Clarksville area.
- Population density is and will continue to be highest in central and eastern Davidson County. Low wage job density is highest west of downtown Nashville.
- There is a need for postsecondary education in the service area, particularly in and north of Clarksville and in central and southeastern Davidson County, areas well served by existing campuses.
- Nashville State's low participation rate relative to other Tennessee community colleges indicates the potential for growth.
- There are a significant number of competing institutions in Davidson County, but Nashville State's low tuition makes it competitive.
- There is potential demand for new campuses in eastern and northeastern Davidson County, as well as in Stewart or Houston County.

Regional Job Projections

An important part of any Master Plan is understanding the regional job market, particularly for community colleges, from which a significant percentage of students enter the workforce immediately after graduation. Modern labor markets function at the regional scale, so data is analyzed for the two Workforce Investment Areas designated by the State of Tennessee that intersect Nashville State's service area, as shown on the map below.

As shown in the table on the following page, the following industry sectors occupy a significantly higher percentage of the regional labor pool compared to the statewide average in Workforce Investment Area 8: retail trade; finance & insurance; professional, scientific, & technical services; management of companies & enterprises; and educational services.

In Workforce Investment Area 9, the following industry sectors occupy a significantly higher percentage of the regional labor pool compared to the statewide average: wholesale trade; information; finance & insurance; professional, scientific, & technical services; and public administration.

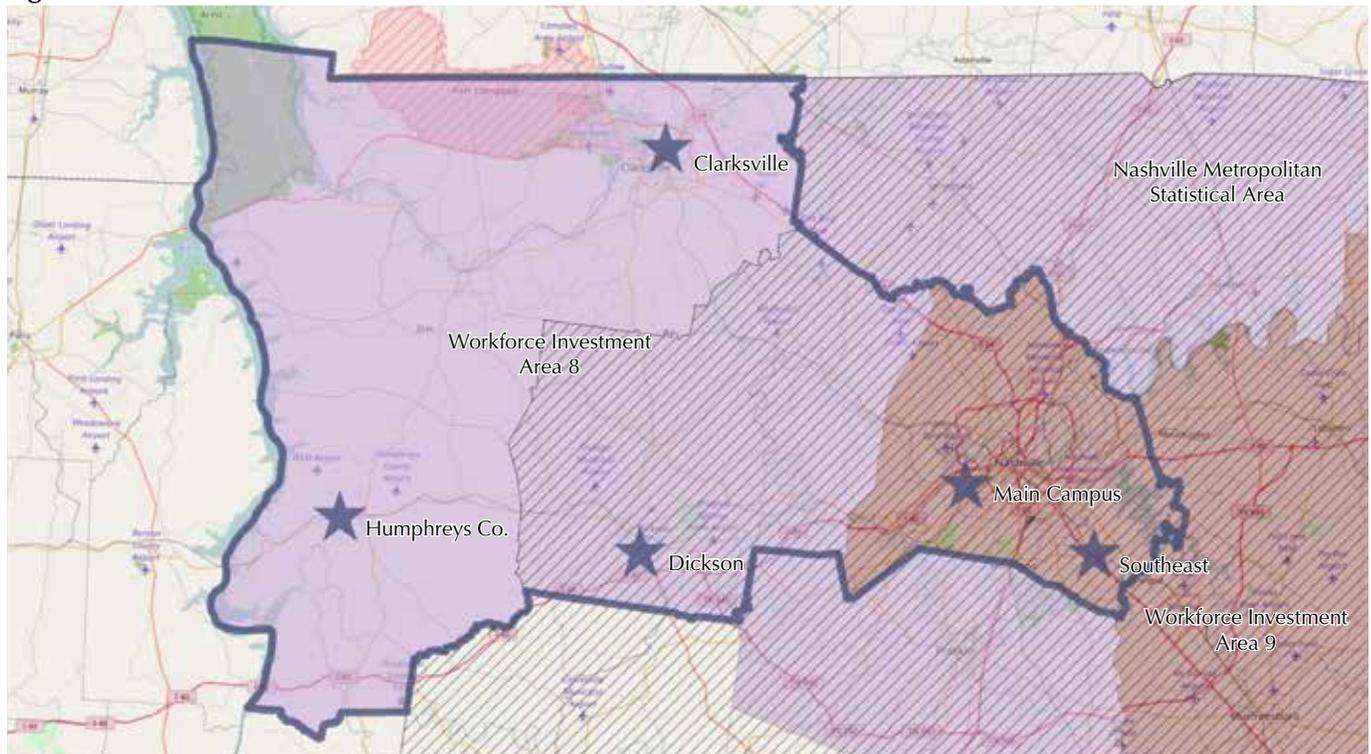
The Tennessee Department of Labor provides job projections for each Workforce Investment Area in the state. These are broken down by industry clusters,

which consist of jobs in closely related fields. This Master Plan correlates these industry clusters with degree and certificate programs currently taught by Nashville State. This data, shown in the tables on pages 27-30, provides the projected job growth rate, ratio of jobs to graduates, and a summary grade level for the industry cluster or clusters related to every non-transfer program at Nashville State. Data for some industry clusters is only available at the statewide level, as indicated by the asterisks in the table. The letter grade job outlook in all industry clusters takes into consideration the following factors:

- Growth rate in the industry cluster relative to the statewide growth rate for that industry cluster
- Number of annual job openings
- Supply/demand ratio (the ratio of graduates of programs in all related higher education programs to the number of job openings)

While the regional job projections are based on solid data, it is important to note that they may not correspond exactly with the specific jobs that Nashville State graduates pursue. This is because of how jobs are grouped, as well as the fact that some of the data on graduates and job openings may be related to four-year programs and not directly correspond to the demand for those with certificates or Associate's degrees.

Figure 1m: Workforce Investment Areas



Source: U.S. Census, Map © OpenStreetMap (and) contributors, CC-BY-SA

Employment by Industry Sector (2014)

	WIA 8	WIA 9	Tennessee
Agriculture, Forestry, Fishing & Hunting	0.2%	0.0%	0.3%
Mining, Quarrying, & Oil & Gas Extraction	0.2%	0.0%	0.1%
Utilities	0.6%	0.4%	0.6%
Construction	4.9%	3.9%	4.1%
Manufacturing	11.5%	8.1%	12.5%
Wholesale Trade	3.9%	5.5%	4.7%
Retail Trade	13.2%	10.3%	11.7%
Transportation & Warehousing	2.0%	4.7%	5.2%
Information	2.0%	2.6%	1.7%
Finance & Insurance	5.5%	4.4%	3.9%
Real Estate & Rental & Leasing	1.2%	1.7%	1.3%
Professional, Scientific, & Technical Services	7.4%	5.6%	4.5%
Management of Companies & Enterprises	2.8%	1.5%	1.4%
Administration & Support, Waste Management & Remediation	5.9%	7.6%	7.4%
Educational Services	9.5%	7.5%	8.7%
Health Care & Social Assistance	12.8%	14.6%	14.2%
Arts, Entertainment, & Recreation	1.1%	1.3%	1.1%
Accommodation & Food Services	9.3%	9.3%	9.1%
Other Services (excluding Public Administration)	2.5%	3.0%	2.6%
Public Administration	3.4%	7.8%	4.9%

Source: U.S. Census On The Map

Furthermore, economies are constantly in flux, and localized data such as potential growth in specific industries or expansions of major employers may not be captured here. For this reason, the ultimate recommendations of this Master Plan are based on a larger picture of job outlook based on online surveys and interviews conducted with Nashville State faculty and administrators.

According to this data, all industry demand clusters related to Associate degree programs taught at Nashville State are projected to grow between 2014 and 2022, some of them at very high rates due to the rapidly growing metro economy. The same is true for clusters related to technical certificate programs, except for Horticulture (in WIA 8 only) and 3D Design & Graphics (in both WIAs).

In general, most workforce clusters have an excellent or favorable job outlook, indicating that the regional economy is growing and that Nashville State graduates are entering fields with job growth and without more college graduates than jobs. The Police Science, Police Administration, and Music Technology programs have competitive job markets in both workforce investment areas. Other programs are also competitive in WIA 9.

Regional Employment Outlook: Workforce Investment Area 8 (Associate Degree Programs)

Nashville State Associate Degree Program	Associated Workforce Cluster	Projected Average Annual Growth Rate (2014-2022)**	Projected Supply/Demand Ratio (Ratio of Graduates to Jobs)	Job Outlook
Accounting	Accounting Administrative Support	2.7%	0.06	A - Excellent
Architectural, Civil & Construction Engineering Technology	Technical Design & Preconstruction	1.2%	n/a	A - Excellent
Business, Office Administration	Administrative & Information Support	2.4%	0.11	A - Excellent
Computer Information Systems, Computer Technology, Professional Studies - Information Technology Concentration	Web/Multimedia Management, Programming	1.3%	1.01	C - Favorable
Computer Networking Technology	Network Systems	2.6%	0.03	A - Excellent
Culinary Arts	Restaurants and Food and Beverage Services Pathway	2.0%	0.03	A - Excellent
Early Childhood Education	Teacher Training Services- Pre-K-Early Childhood Education	3.8%	0.25	A - Excellent
Electrical Engineering	Electronic/Computer Engineering Tech.	3.1%	n/a	U - Ungraded*
General Technology	various	varies	varies	varies
Health Sciences, Healthcare Management	Administrative & Information Support	2.4%	0.11	A - Excellent
Industrial Process Control Technology	Prod. Design, Ops, and Maint. Path— Operations & Maintenance	0.9%	0.34	B - Very Good
Medical Informatics	Medical Records Tech.	5.4%	1.25	C - Favorable
Nursing	Nursing (RN)	4.4%	0.44	A - Excellent
Occupational Therapy Assistant	Occupational Therapy Assistant	6.6%	n/a	U - Ungraded*
Paralegal Studies	Legal Assisting	3.8%	1.33	C - Favorable
Police Science	Law Enforcement	0.9%	1.75	D - Competitive
Visual Communications	Visual Arts Pathway - Design Communications	0.6%	0.00	U - Ungraded*
Web Technology	Web Design	4.4%	0.85	A - Excellent

Source: Tennessee Department of Labor & Workforce Development

*Ungraded workforce clusters have either a negative job growth rate, fewer than 11 annual job openings, or no related academic programs in the workforce investment area

**The statewide average annual growth rate for jobs in all sectors during this period is projected to be 1.1%

Many workforce clusters include jobs that require more than an Associates degree and may reflect the larger job field beyond those jobs for which Nashville State graduates are eligible

Transfer degree programs are not included in this list because graduates go on to continue their education rather than immediately entering the workforce

Regional Employment Outlook: Workforce Investment Area 8 (Certificate Programs)

Nashville State Associate Degree Program	Associated Workforce Cluster	Projected Average Annual Growth Rate (2014-2022)**	Projected Supply/Demand Ratio (Ratio of Graduates to Jobs)	Job Outlook
3D Design & Graphics	Graphic Communications and Printing	-1.0%	n/a	U - Ungraded*
Accounting	Accounting Administrative Support	2.7%	2.70	A - Excellent
Administrative Assistant	Administrative & Information Support	2.4%	0.11	A - Excellent
CAD, Drafting & Construction	Technical Design & Preconstruction	1.2%	n/a	A - Excellent
Culinary Arts	Restaurants and Food and Beverage Services Pathway	2.0%	0.03	A - Excellent
Early Childhood Education	Teacher Training Services- Pre-K-Early Childhood Education	3.8%	0.25	A - Excellent
Healthcare-IT Medical Management	Medical Records Tech.	5.4%	1.25	C - Favorable
Horticulture	Plant Systems Pathway - Horticulture Production	-2.9%	n/a	U - Ungraded*
Industrial Electrical Maintenance	Prod. Design, Ops, and Maint. Path— Operations & Maintenance	0.9%	0.34	B - Very Good
Information Security	Web/Multimedia Management, Programming	1.3%	1.01	C - Favorable
Logistics, Supply Chain, Transportation	Transportation Operations Pathway - Transportation Systems	5.2%	3.00	U - Ungraded*
Mechatronics	Electrical, Electronic Equip. Repairers	2.3%	0.56	A - Excellent
Medical Coding	Administrative & Information Support	2.4%	0.11	A - Excellent
Music Technology	Dramatic Arts	0.9%	2.68	D - Competitive
Photography	Visual Arts Pathway - Design Communications	0.6%	0.00	U - Ungraded*
Police Administration	Law Enforcement	0.9%	1.75	D - Competitive
Surgical Technology, Central Processing Technology	Surgical Technologist	4.1%	0.60	U - Ungraded*
Web Page Authoring	Web Design	4.4%	0.85	A - Excellent

Source: Tennessee Department of Labor & Workforce Development

*Ungraded workforce clusters have either a negative job growth rate, fewer than 11 annual job openings, or no related academic programs in the workforce investment area

**The statewide average annual growth rate for jobs in all sectors during this period is projected to be 1.1%

Many workforce clusters include jobs that require more than an Associates degree and may reflect the larger job field beyond those jobs for which Nashville State graduates are eligible

Transfer degree programs are not included in this list because graduates go on to continue their education rather than immediately entering the workforce

Regional Employment Outlook: Workforce Investment Area 9 (Associate Degree Programs)

Nashville State Associate Degree Program	Associated Workforce Cluster	Projected Average Annual Growth Rate (2014-2022)**	Projected Supply/Demand Ratio (Ratio of Graduates to Jobs)	Job Outlook
Accounting	Accounting Administrative Support	2.2%	0.11	A - Excellent
Architectural, Civil & Construction Engineering Technology	Technical Design & Preconstruction	1.2%	0.21	A - Excellent
Business, Office Administration	Administrative & Information Support	1.8%	0.20	A - Excellent
Computer Information Systems, Computer Technology, Professional Studies - Information Technology Concentration	Web/Multimedia Management, Programming	1.3%	1.01	C - Favorable
Computer Networking Technology	Network Systems	3.1%	0.90	A - Excellent
Culinary Arts	Restaurants and Food and Beverage Services Pathway	1.2%	0.17	A - Excellent
Early Childhood Education	Teacher Training Services- Pre-K-Early Childhood Education	3.8%	0.25	A - Excellent
Electrical Engineering	Electronic/Computer Engineering Tech.	2.2%	2.84	D - Competitive
General Technology	various	varies	varies	varies
Health Sciences, Healthcare Management	Administrative & Information Support	1.8%	0.20	A - Excellent
Industrial Process Control Technology	Prod. Design, Ops, and Maint. Path— Operations & Maintenance	0.9%	0.34	B - Very Good
Medical Informatics	Medical Records Tech.	2.7%	1.55	D - Competitive
Nursing	Nursing (RN)	2.3%	2.08	D - Competitive
Occupational Therapy Assistant	Occupational Therapy Assistant	3.2%	1.90	U - Ungraded*
Paralegal Studies	Legal Assisting	5.4%	0.75	A - Excellent
Police Science	Law Enforcement	0.9%	1.75	D - Competitive
Visual Communications	Visual Arts Pathway - Design Communications	1.6%	16.43	E - Very Competitive
Web Technology	Web Design	3.2%	1.68	D - Competitive

Source: Tennessee Department of Labor & Workforce Development

*Ungraded workforce clusters have either a negative job growth rate, fewer than 11 annual job openings, or no related academic programs in the workforce investment area

**The statewide average annual growth rate for jobs in all sectors during this period is projected to be 1.1%

Many workforce clusters include jobs that require more than an Associates degree and may reflect the larger job field beyond those jobs for which Nashville State graduates are eligible

Transfer degree programs are not included in this list because graduates go on to continue their education rather than immediately entering the workforce

Regional Employment Outlook: Workforce Investment Area 9 (Certificate Programs)

Nashville State Associate Degree Program	Associated Workforce Cluster	Projected Average Annual Growth Rate (2014-2022)**	Projected Supply/Demand Ratio (Ratio of Graduates to Jobs)	Job Outlook
3D Design & Graphics	Graphic Communications and Printing	-0.5%	1.49	U - Ungraded*
Accounting	Accounting Administrative Support	2.2%	0.11	A - Excellent
Administrative Assistant	Administrative & Information Support	1.8%	0.20	A - Excellent
CAD, Drafting & Construction	Technical Design & Preconstruction	1.2%	0.21	A - Excellent
Culinary Arts	Restaurants and Food and Beverage Services Pathway	1.2%	0.17	A - Excellent
Early Childhood Education	Teacher Training Services- Pre-K-Early Childhood Education	3.8%	0.25	A - Excellent
Healthcare-IT Medical Management	Medical Records Tech.	2.7%	2.33	D - Competitive
Horticulture	Plant Systems Pathway - Horticulture Production	1.9%	0.22	A - Excellent
Industrial Electrical Maintenance	Prod. Design, Ops, and Maint. Path— Operations & Maintenance	0.9%	0.34	B - Very Good
Information Security	Web/Multimedia Management, Programming	1.3%	1.01	C - Favorable
Logistics, Supply Chain, Transportation	Transportation Operations Pathway - Transportation Systems	3.0%	0.30	A - Excellent
Mechatronics	Electrical, Electronic Equip. Repairers	2.4%	0.06	A - Excellent
Medical Coding	Administrative & Information Support	1.8%	0.20	A - Excellent
Music Technology	Dramatic Arts	0.9%	2.68	D - Competitive
Photography	Visual Arts Pathway - Design Communications	1.6%	16.43	E - More Competitive
Police Administration	Law Enforcement	0.9%	1.75	D - Competitive
Surgical Technology, Central Processing Technology	Surgical Technologist	2.9%	9.00	E - More Competitive
Web Page Authoring	Web Design	3.2%	1.68	D - Competitive

Source: Tennessee Department of Labor & Workforce Development

*Ungraded workforce clusters have either a negative job growth rate, fewer than 11 annual job openings, or no related academic programs in the workforce investment area

**The statewide average annual growth rate for jobs in all sectors during this period is projected to be 1.1%

Many workforce clusters include jobs that require more than an Associates degree and may reflect the larger job field beyond those jobs for which Nashville State graduates are eligible

Transfer degree programs are not included in this list because graduates go on to continue their education rather than immediately entering the workforce

Determining the job outlook for graduates of two-year transfer programs is more difficult, since graduates can go on to pursue a wide range of degrees that may lead to an even wider range of employment possibilities. For this reason, it is not possible to correlate transfer degrees with regional industry clusters. To provide

an idea of the job prospects for graduates of transfer programs, this Master Plan uses a study that examines nationwide earnings and employment rates for graduates of four-year programs, and then correlates those programs to Nashville State's two-year programs. This data is shown below.

National Employment Outlook (Transfer Degree Programs)

Four-Year Degree Program	Recent College Graduate Unemployment Rate	Recent College Graduate Earnings	Potential Job Outlook
Biology	7.8%	\$30,000	C
Chemistry	5.8%	\$31,000	C
Child Development & Family Relations	n/a	n/a	n/a
Civil Engineering	7.6%	\$51,000	B
Computer Science	8.7%	\$50,000	B
Computer Technology	n/a	n/a	n/a
Criminal Justice	8.9%	\$30,000	D
Economics	10.4%	\$46,000	C
Elementary Education	5.0%	\$33,000	B
English	9.8%	\$31,000	D
Exercise Science	n/a	n/a	n/a
Geography	n/a	n/a	n/a
Foreign Language	8.1%	\$30,000	C
History	9.5%	\$32,000	D
Information Systems	14.7%	\$40,000	D
Mathematics	5.9%	\$41,000	B
Mechanical Engineering	8.1%	\$57,000	A
Middle Grades Education	n/a	n/a	n/a
Music	8.6%	\$30,000	D
Philosophy	9.5%	\$29,000	D
Physics	n/a	n/a	n/a
Political Science	11.1%	\$35,000	D
Pre-Engineering	7.0%	\$55,000	A
Pre-Health Professions	n/a	n/a	n/a
Pre-Industrial Technology	n/a	n/a	n/a
Pre-Law	n/a	n/a	n/a
Pre-Nursing	4.8%	\$48,000	A
Pre-Occupational Therapy	n/a	n/a	n/a
Pre-Physical Therapy	n/a	n/a	n/a
Psychology	9.2%	\$30,000	D
Secondary Education	n/a	n/a	n/a
Social Work	8.2%	\$29,000	C
Sociology	9.9%	\$30,000	D
Special Education	n/a	n/a	n/a
Speech Communication	n/a	n/a	n/a
Studio Art	n/a	n/a	n/a

Source: *Hard Times: College Majors, Unemployment & Earnings*, Georgetown University Center for Education & The Workforce, 2013
Rankings were created based on Jenks natural breaks optimization for all majors, not just those shown here

II. Goal Formulation

- Review of all on-line courses using the Quality Matters review process
- Addition of national certifications to appropriate courses and programs

Priority 4: Resourcefulness & Efficiency

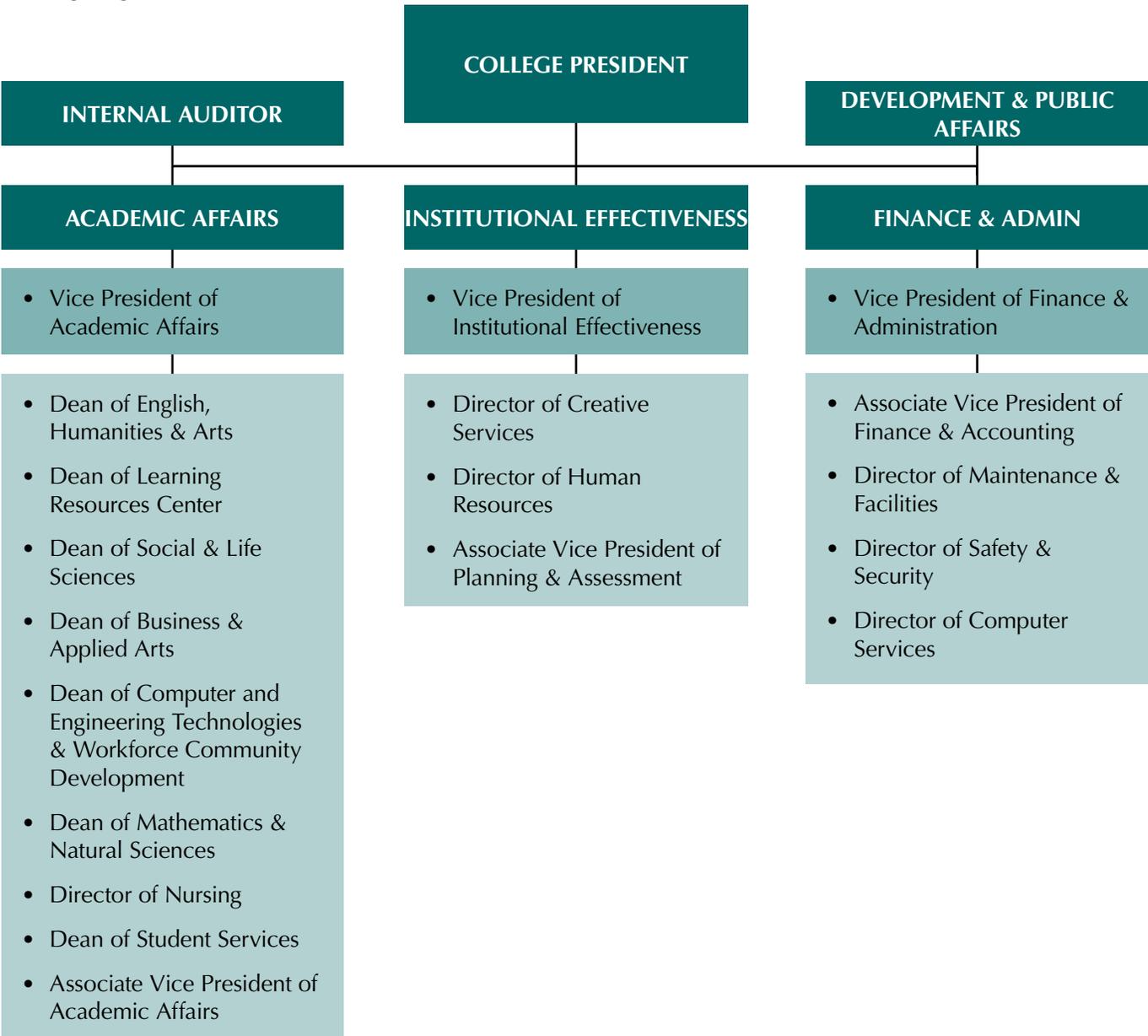
NSCC will address fiscal and facilities deficiencies by advocating for: (1) equitable level of state funding per FTE and (2) equity in quantity and quality of physical

facilities. NSCC will aggressively pursue distance education, especially web-based courses and off-campus locations as one means of coping with facilities shortages.

Existing Organizational Structure

The existing administrative structure of Nashville State Community College is shown in the figure below.

Existing Organizational Structure



III. Existing Conditions

Main Campus

Nashville State's Main Campus is located on the east side of White Bridge Road in what might be called a second ring suburban neighborhood west of downtown Nashville. In recent years, the neighborhoods surrounding the campus have gentrified into an upper middle-class suburban community. The campus itself is defined by a central quad surrounded by buildings of a variety of ages.

Natural Systems

At approximately 500 feet above sea level, the highest point on campus is at its southernmost entrance from White Bridge Road. The campus falls gently to the east toward Richland Creek, which is located approximately 430 feet above sea level. No significant drainage or flooding concerns have been identified.

The main parking lot, which is more than 15 acres in area, has an enormous negative impact on the local ecosystem due to the high quantities of stormwater runoff that it releases into the creek, which picks up both heat and pollutants from the parking lot. The urban heat island effect from the vast stretch of asphalt also affects the local micro climate, increasing ozone and the cost of air conditioning.

Edges

The Main Campus is bordered to the north and west by low-density residential neighborhoods, to the south by the Tennessee College of Applied Technology (TCAT) Nashville, and to the east by Richland Creek and a National Guard facility. A golf course is located just across Richland Creek.

Entry Points

The Main Campus has three vehicular access points from White Bridge Road. The southern entry passes through the TCAT campus. The middle entry has a traffic signal and is shared with the TCAT campus. The northern entrance does not have a traffic signal and most exiting traffic turns right.

There are also three internal points of road connectivity between Nashville State and the TCAT. Students coming from the south and going to Nashville State's main parking lot can use one of these routes through the TCAT campus.

New landscaping, pavers, lighting, and an architectural upgrade to the Administration Building completed in 2014 have provided an attractive and prominent first impression of campus that makes it easy for visitors to



The Main Campus is organized around a central quad



The Main Campus is bordered to the east by the Richland Creek Greenway (photo courtesy Rex Hammock)



Recent landscaping and architectural improvements provide an attractive first impression from White Bridge Road

Figure 3a: Main Campus Context

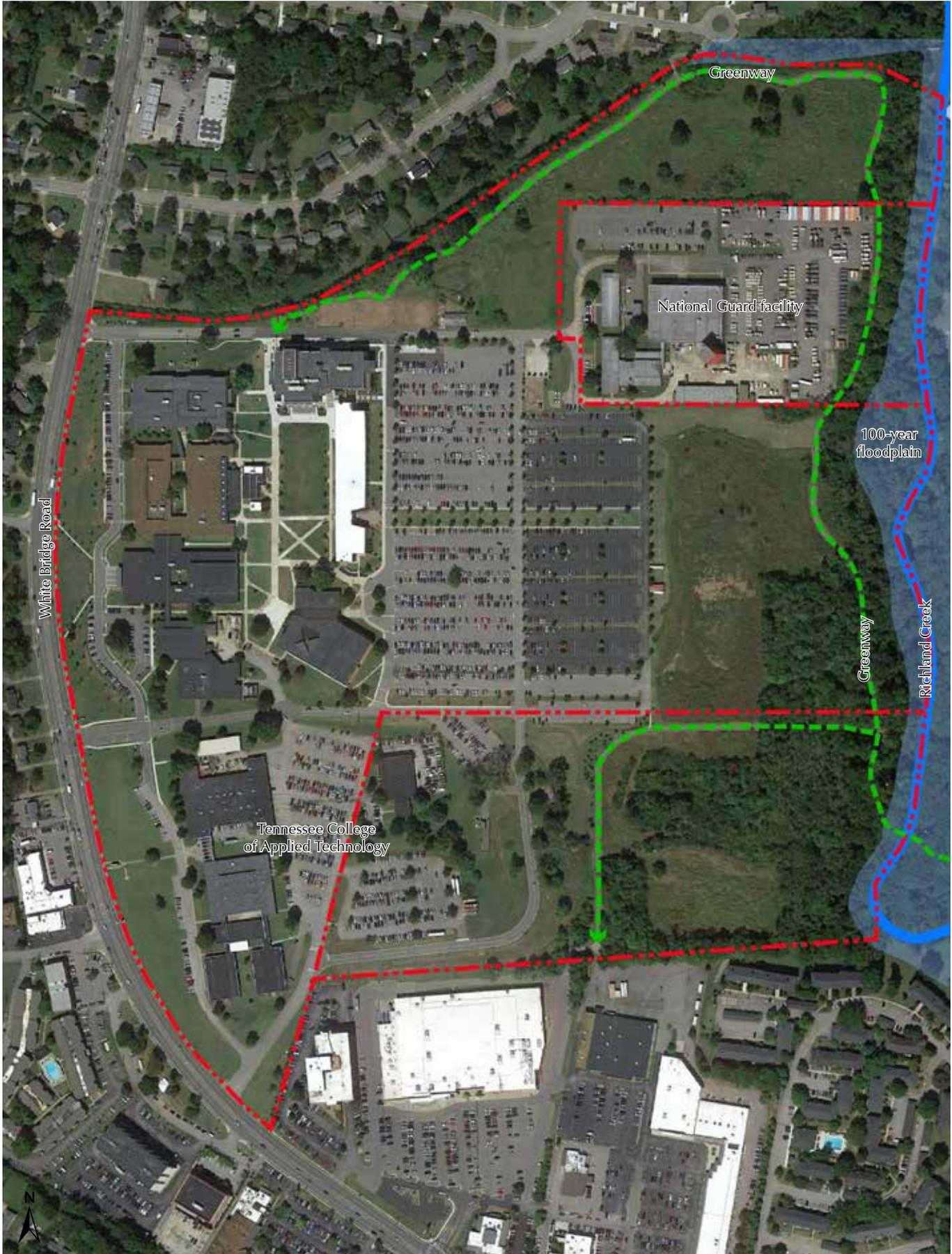
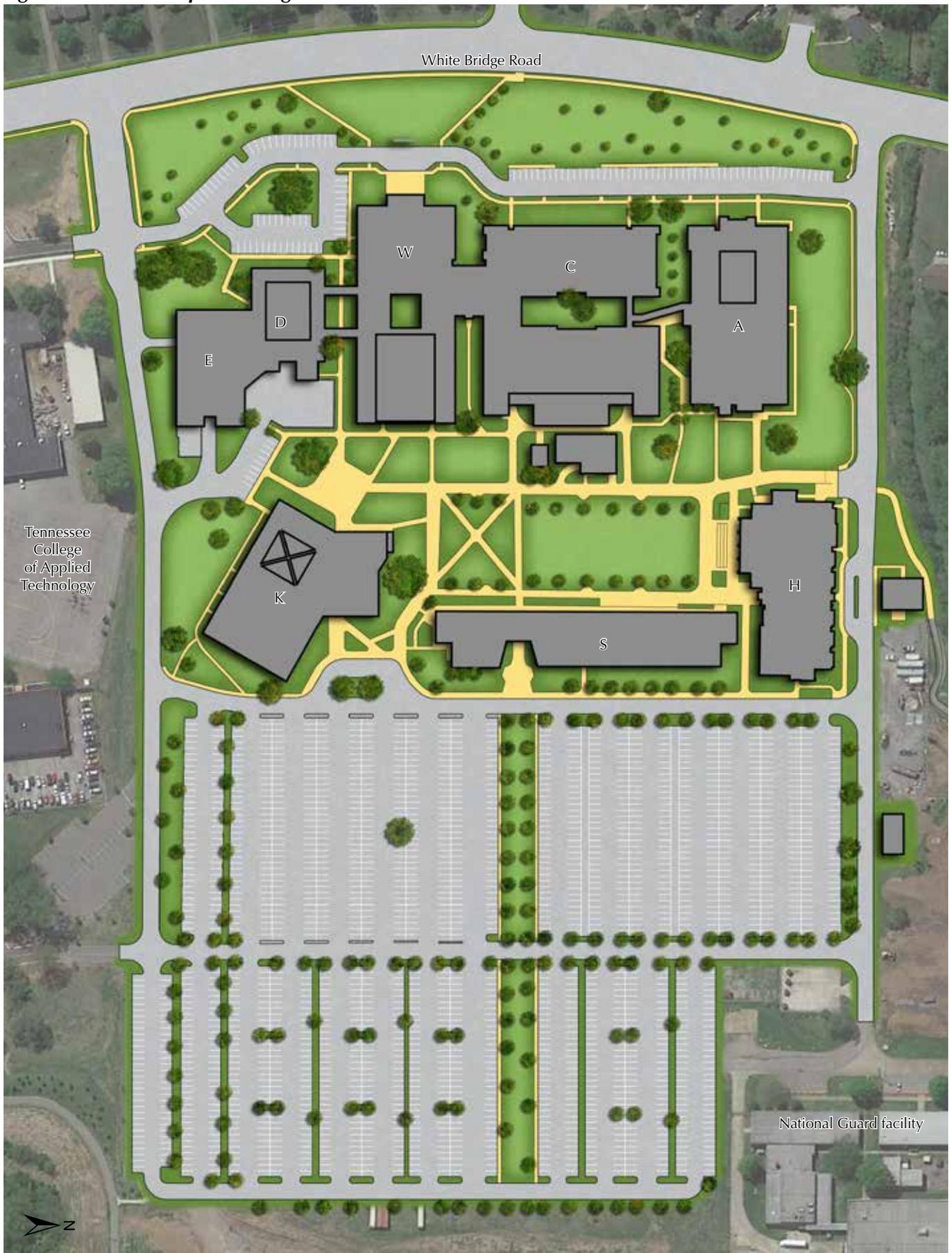


Figure 3b: Main Campus Existing Conditions





The central quad consists of an open lawn with some seating areas; trees are in poor health



Landscaping between Buildings H and S is well done and should be emulated in other pedestrian areas on campus

know which building to enter. Once the trees mature, this area should have a pleasing, collegiate feel.

Those arriving by bus take a short walk from the bus stop to their destination. Many bus riders cut through the Administration Building.

Open Space Framework

The Main Campus has a limited amount of open space due to its compact nature. The frontage along White Bridge Road has a considerable amount of sloped green space that acts as a buffer between the road and the campus buildings. This space is not used by students for active or passive uses and is primarily a transition zone for pedestrians.

The major open space on campus is the quadrangle that is fronted by most campus buildings, and was created by the new H and S Buildings. The center of the quad is currently a lawn that is used as passive space, but the new buildings have a variety of active uses, including food service and performance space. For this reason, there are new and exciting possibilities for the quadrangle, which could become a highly active and energized space.

There are also two small courtyards in Buildings A and W that serve as open space, as well as small areas between Buildings W and D and between Buildings A and C, which are transitional spaces with some seating. These spaces may have security issues due to lack of visibility.

Landscaping

Landscaping is somewhat limited on the Main Campus. A number of trees have recently been planted along the front of the campus. The majority of the trees are hardwood and all under two inch caliper. Within the next ten years, the front of the campus should have the feel of a hardwood urban forest. Eventually, the lawn in this area will have to be replaced with ground cover due to the shade from the trees.

The Main Campus as a whole is defined by a traditional collegiate landscape consisting of hardwood trees, ground cover, and lawns. This is a positive attribute and is easy to maintain. In some of the pedestrian transition areas between buildings, shrubs and plantings against buildings have grown larger and may pose security issues.

The quadrangle is mostly an open lawn planted with large trees around the edges, although there are some low shrubs, grasses, and seating areas. The existing

oak trees are currently in poor health, perhaps due to shallow soil.

The landscaping between Buildings H and S is well done and should be emulated in other transition spaces between buildings, such as the space between Buildings A and C. The landscaping between Buildings D and W is well done in the more traditional landscape vernacular.

The large student parking on the east side of campus has landscaping around its perimeter. There is also a central green spine that effectively breaks up the large lot and provides an entry promenade to Building S. Outside of this green spine, there are few plantings in the west side of the parking lot, which is a significant urban heat island. The newer section of the parking lot, east of the loop road, has more landscaping and shade.

Gathering Places

Students, faculty, administrators, and staff have a number of places where they can gather. The most popular gathering place is the small plaza in front of the library. Students also congregate in the area between Buildings K and S, which also serves as a pedestrian corridor between the main parking lot and the core of campus.

The long courtyard in Building A is a well defined space, but lacks modern landscaping and furniture, and is not currently well utilized. The grand stairs in front of Building H are another potential successful gathering space. Their adjacency to the quad means there is the potential for hosting events or small concerts here at times when they would not disturb classes. Their south facing orientation means that the sun would not be a factor for potential events.

The quadrangle itself also has huge potential for large campus gatherings, but is not currently designed to accommodate them. On a daily basis, the current landscaping and seating design do not encourage students or others to make use of this space.

Pedestrian Circulation

Figure 3a on the following page shows the primary pedestrian circulation routes on the Main Campus. Patterns are fairly simple because of the compact nature of the campus. Some pedestrian traffic flows between White Bridge Road and Building W, mostly to and from the bus stop. The traffic light at the southern entry road also has some pedestrian traffic to and from the bus stop across White Bridge Road.

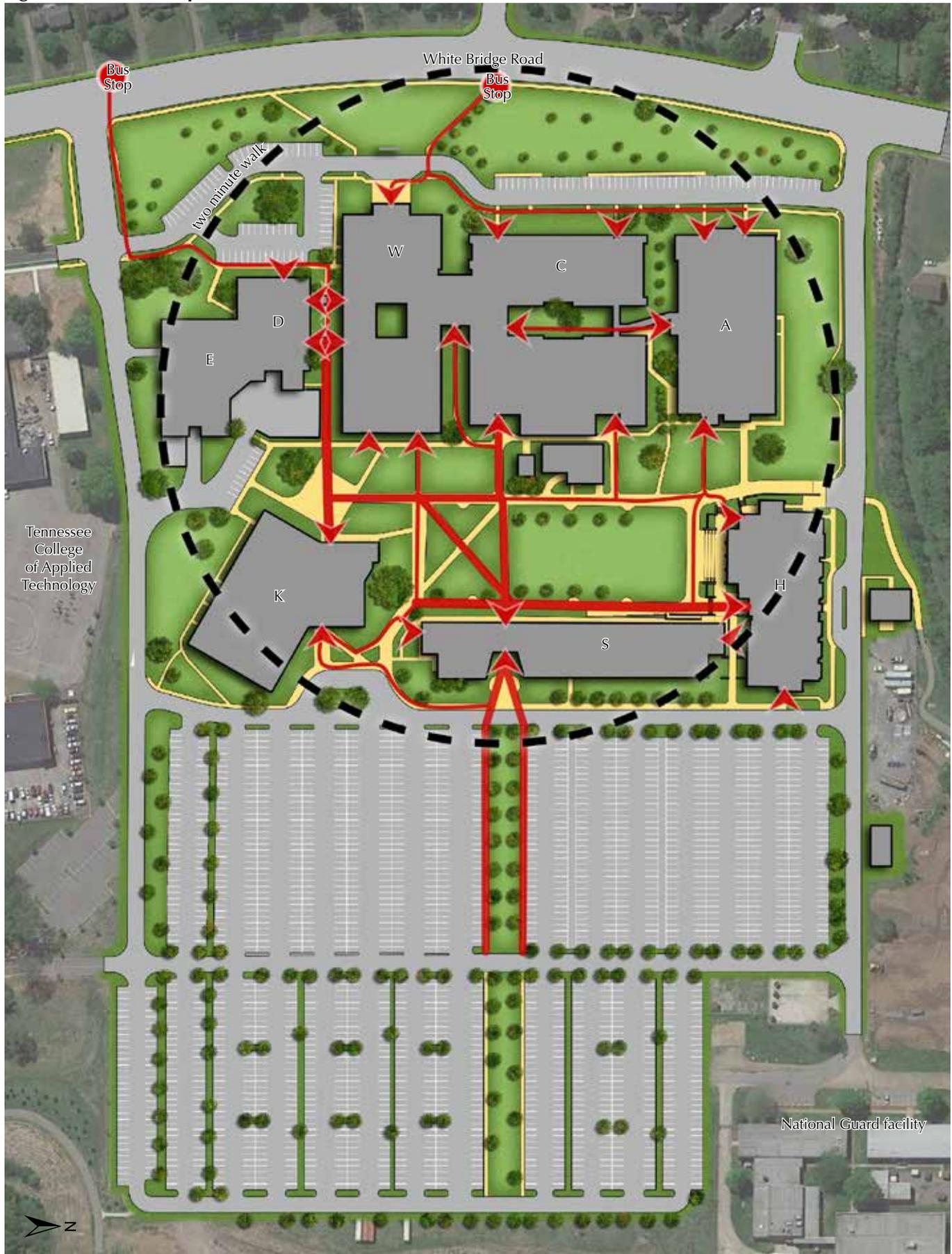


This attractive green space breaks up the main parking lot and provides a pedestrian axis to reach Building S



Gathering spaces, whether formal or informal, allow students to study and interact

Figure 3c: Main Campus Pedestrian Circulation



There is a sidewalk along the northern entry road to Building H and the rear parking lot. There is no sidewalk on the southern edge of campus but this is likely not necessary.

Most pedestrian circulation occurs between buildings in the quadrangle area. Observations indicate that pedestrian circulation, especially between class changes, works successfully as currently designed. Pedestrian paths are well defined and there is good access to all buildings.

There are two major transition points from the main parking lot to the pedestrian portion of campus, both of which flow very well. There are also a number of minor transition points from the parking lot into Buildings H, S and K. The parking lot is designed to allow pedestrians to flow down the travel isles to easily and safely access the campus. Accessible parking is properly located. There is also a drop-off loop between Buildings K and S.

There are very few areas of pedestrian and vehicular conflict on the Main Campus. Once a pedestrian enters the heart of campus, they can flow freely between buildings without coming into contact with any automobiles.

Vehicular Circulation & Parking

Figure 3d on the following page shows vehicular circulation routes on the Main Campus. There are two primary entry points, as discussed above. An access road at the front of the campus runs parallel to White Bridge Road and serves as a ceremonial entry for guests, administrators, and some faculty. There are also a number of accessible parking spaces in this area. The road itself is built with concrete pavers and has a very elegant look. It makes a great first impression for prospective students.

Most students, faculty, administrators, and staff arrive on campus in single occupancy vehicles. Opinions of interviewees varied, but some students do bike or take the bus. Nashville MTA bus route 3 serves the

campus with 30 minute frequency and takes students to Downtown Nashville, where they can transfer to other bus routes.

According to parking demand estimates from the Institute of Transportation Engineers, community colleges need between 0.15 and 0.36 parking spaces per person (whether student, faculty, or administrative staff). The table below assumes the highest parking need of 0.36 for the Clarksville campus, and a high need of 0.30 for the Main and Southeast campuses, because even though these campuses have bus service, most students arrive by car. Based on these conservative assumptions, there is currently a significant deficit of nearly 400 parking spaces on the Main Campus. Parking is adequate at the Southeast Campus. There will be a need for additional parking at the Clarksville campus next year as enrollment increases. Numbers shown are approximations of the peak parking needed at each campus.

Security

The Main Campus has recently added new exterior lighting to the front of the campus and in the quadrangle area. The campus seems to be well lit during evening class hours. Most faculty and administrative staff indicated in interviews that security was not an issue and most felt safe walking on campus at night.

Campus Land Use

Figure 3e on page 47 shows all existing buildings on the Main Campus by their primary use. As a small campus, all uses are located in close proximity to one another and work together to form a successful whole.

Building Use & Condition

All buildings are shown in the tables on the following page, along with their assignable square feet broken down by use. While a detailed facilities audit was not a part of the Master Plan scope, below are general notes on each building based on the Physical Facilities Survey and walk-through.

Table 3a: Fall 2015 Peak Parking Needs

	Campus Population*	Parking Spaces Needed	Existing Parking Spaces	Surplus or Deficit
Main Campus	7,069	2,121	1,723	(398)
Southeast	1,886	566	759	193
Clarksville	751	270	275	5

*Campus population is based on the total headcount of students and administrative staff at each site, plus the number of full time equivalent faculty at each site. FTE faculty numbers are used to account for the large number of adjunct faculty.

Figure 3d: Main Campus Vehicular Circulation



Figure 3e: Main Campus Building Use

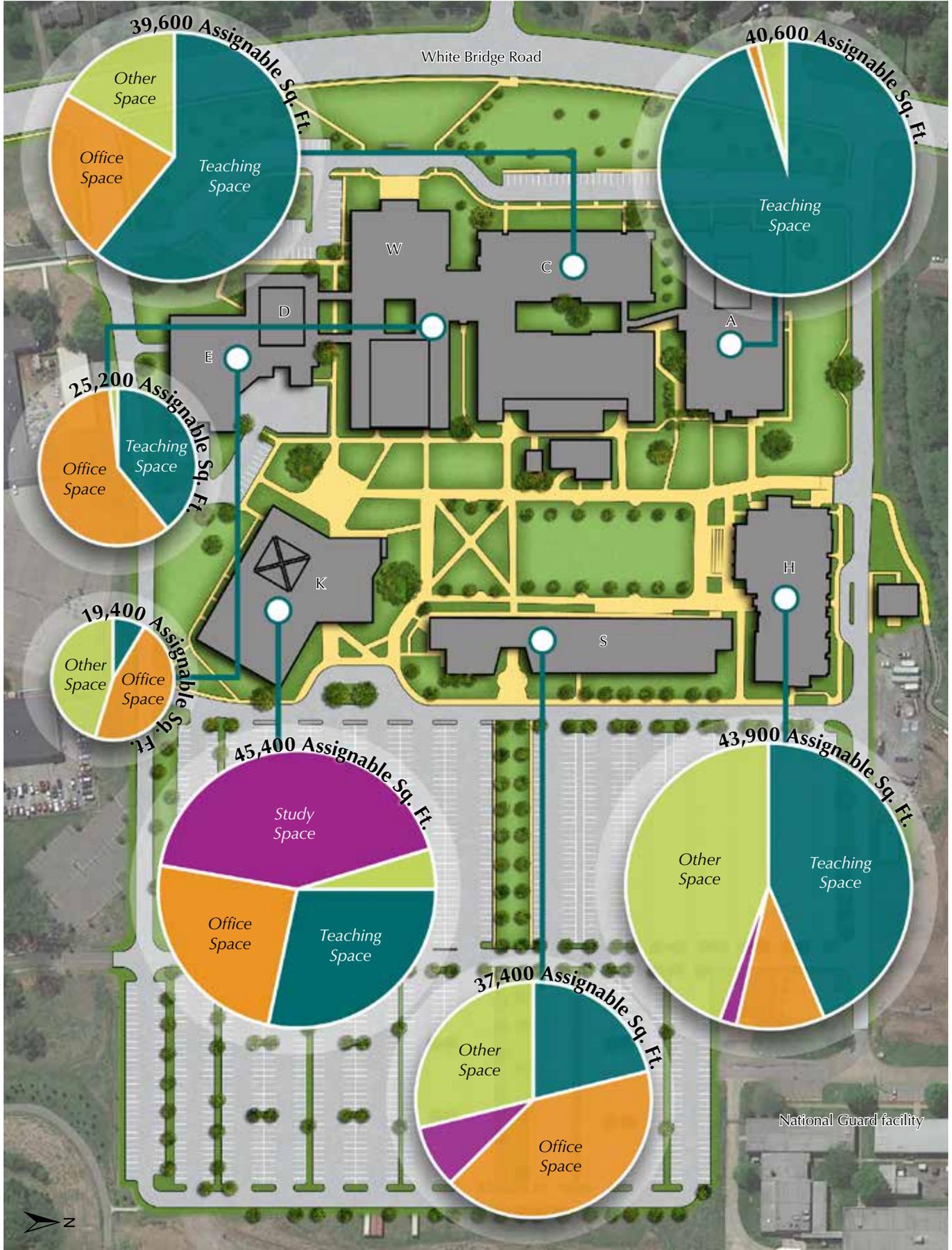


Table 3b: Fall 2015 Buildings

	Building Name	Primary Use	Year Constructed	Gross Floor Area (sq. ft.)
A	Building A	Science, Technical, & Art Labs	1970	58,660
C	Frank G. Clement Building	Computer Labs, Classrooms, Offices	1979	61,148
D	Building D	Faculty Offices	1970	13,196
E	Building E	Maintenance, Admin. Offices, Classrooms	1975	16,755
H	Building H	Classrooms, Labs, Theater, Lounge	2015	73,784
K	Jane G. Kisber Library	Library, Classrooms, Labs, Offices	1988	67,814
S	Student Services Center	Offices, Food Service, Classrooms, Study Space, Meeting Space	2009	60,542
W	Edward L. Weld Administration Building	Offices, Labs, Classrooms	1970	45,455
Total Main Campus				398,074
	Clarksville	Labs, Classrooms, Offices	1995	22,156
	Southeast	Labs, Classrooms, Offices, Lounge	1991	101,000*
Grand Total				521,230

*Does not include second floor expansion that opened in Fall 2016

Table 3c: Fall 2015 Net Assignable Square Feet of Space

Building Name	Classrooms (100s)	Labs (200s)	Offices (300s)	Study/Library (400s)	Special Use (500s)	General Use (600s)	Support Space (700s)	Total
A Building A	2,944	35,701	573	0	0	720	649	40,587
C Frank G. Clement Building	5,939	18,199	8,916	0	402	4,196	1,940	39,591
D Building D	0	0	7,398	0	0	0	950	8,348
E Building E	1,683	0	1,563	0	0	0	7,842	11,088
H Building H	9,906	9,285	4,445	802	3,747	13,867	1,837	43,889
K Jane G. Kisber Library	6,657	6,211	11,176	19,300	0	1,954	94	45,393
S Student Services Center	5,475	2,446	15,492	3,222	0	10,343	460	37,438
W Edward L. Weld Administration Building	4,437	5,466	14,882	0	0	0	380	25,164
Total Main Campus	37,041	77,308	64,444	23,324	4,149	31,080	14,152	251,499
Clarksville	3,370	21,571	3,877	660	0	9,744	840	14,171
Southeast	14,624	4,176	12,019	3,885	0	1,248	1,955	63,798
Grand Total	55,035	103,055	80,340	27,869	4,149	42,072	16,947	329,468

Table 3d: Fall 2016 Net Assignable Square Feet of Space

Building Name	Classrooms (100s)	Labs (200s)	Offices (300s)	Study/Library (400s)	Special Use (500s)	General Use (600s)	Support Space (700s)	Total
Southeast Including Second Floor Expansion	32,482	25,643	13,942	6,105	0	12,908	2,521	93,601

Weld Administration Building. Overall, the existing building systems have reached the end of their useful life. Existing plumbing and electrical systems have reached their capacities, which would make renovation or expansion extremely difficult. Building is not equipped with fire sprinklers.

Building A. Plumbing systems appear to be adequate for the current use, given that mains and fixtures have been replaced since 2005. Most HVAC units have been replaced since 2005 and appear to be in good condition. The building is not equipped with fire sprinklers, but fire extinguishers are provided. The electrical system appears to be adequate for the current use, given that upgrades have been made since 2009.

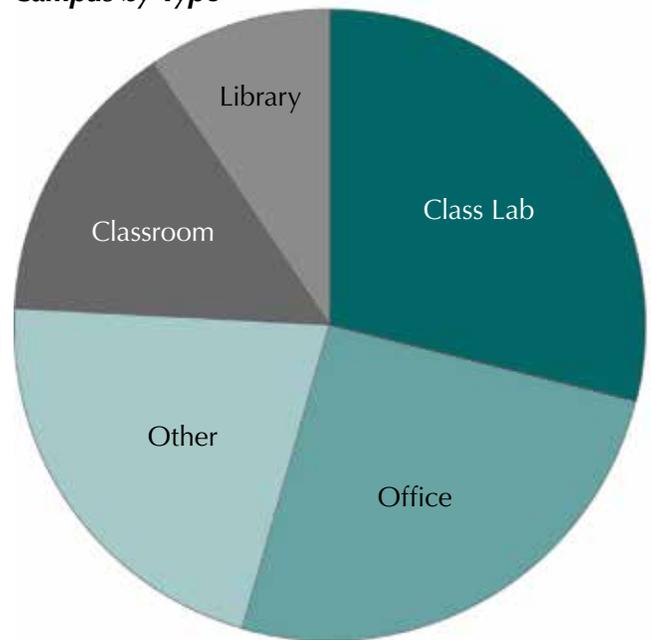
Clement Building. The plumbing system appears to be adequate for the current use, but much of the system is original to the building. The HVAC system is a closed loop with four-pipe fan coil units, which were replaced in 2000. The system appears to be in good condition but is reaching the end of its useful life. The building is equipped with fire sprinklers. The electrical system appears to be adequate for the current use, given that upgrades have been made since 2009.

Building D. The plumbing system appears to be adequate for the current use, but much of it is original to the building. Fixtures were replaced from 2009-2012. Most HVAC units have been replaced since 2009 and appear to be in good condition. Building is non-sprinklered, fire extinguishers are provided. Electrical system appears to be adequate for the current use as upgrades have been made since 2009.

Building E. Plumbing system appears to be adequate for the current use but much of the system is original to the building. Fixtures were replaced from 2009-2012. Most HVAC units have been replaced since 2010 and appear to be in good condition. The building is not equipped with fire sprinklers, but fire extinguishers are provided. The electrical system appears to be adequate for the current use, but users expressed concerns that the existing motor control center and switchgear are reaching the end of their useful lives.

Kisber Library. The plumbing system appears to be adequate for the current use. Most HVAC units have been replaced since 2011 and appear to be in good condition. The building is equipped with fire sprinklers. The electrical system is near capacity after computer lab additions and should be investigated.

Figure 3d. Existing Assignable Space on Main Campus by Type



Building systems are generally in good condition, except for in the W Building

Student Services Center. The plumbing system appears to be adequate for the current use. HVAC unit AHU-3 appears to have an air distribution problem and is unusually noisy given its age and condition. The discharge air duct off the unit appears to have several abrupt turns that may contribute to the lack of air downstream. All other units are in good condition. The building is equipped with fire sprinklers. Electrical system appears adequate for current use.

Building H. Plumbing, HVAC, and electrical systems appear to be adequate for the current use. The building is equipped with fire sprinklers.

Clarksville Campus

Nashville State's Clarksville campus is located just under three miles east of downtown Clarksville in a former car dealership building.

Natural Systems & Edges

A very large stormwater detention area is located just off of Wilma Randolph Boulevard and seems to be oversized for the single building. The campus rises from Wilma Rudolph Boulevard up to high point where the existing building is located. From the building, topography rises gently to the back of the property.

The north side of the campus is flanked by light industrial buildings. The land immediately south and west of the campus is currently vacant. Campus surroundings consist mostly of small commercial strip centers.

Entry Points & Open Space

The Clarksville campus has two entry points, both located off of Wilma Rudolph Boulevard. The northern entry point is approximately 400 feet south of the intersection of Wilma Rudolph Boulevard and Dunbar Cave Road. For this reason, it is difficult to make a left turn out of the northern campus exit.

The southern entrance to campus is approximately 950 feet from Dunbar Cave Road. The lack of a traffic signal at this intersection makes entering and exiting dangerous, particularly for left turning vehicles and during rush hours.

There is a large open green space facing Wilma Rudolph Boulevard, but this space is not usable because most of it functions as a retention pond and because of its exposure to the highway. There are several small and well-used open spaces immediately in front of the building, with some seating.

Campus landscaping is still new and has not had sufficient time to mature. Additional trees could be planted in the large retention area to soften the front of the campus.

Pedestrian & Vehicular Circulation

Pedestrian circulation is limited to walking to the building entrance from the east or west parking lots. A set of stairs provides a useful and attractive transition from the lower eastern parking lot. There are a number of restaurants and other businesses within a short walk of campus, but the lack of sidewalks and the very dangerous crossing of the highway makes walking nearly impossible.



The Clarksville campus consists of a single building

Vehicular circulation is simple on this small campus: all vehicles enter and exit from Wilma Rudolph Boulevard and travel to one of two parking lots. Most students, faculty, administrators, and staff arrive on campus in single-occupancy vehicles. Clarksville Transit (CTS) bus route 7 serves the campus every 30 minutes and takes students to downtown Clarksville, where they can transfer to other bus routes.

Security

Parking lots are well lit and there are clear sight-lines to the parking lot from the building both front and back. There is currently no need for additional exterior lighting on the campus.

Building Condition

The plumbing and HVAC systems appear to be adequate for the current use. The building is fully equipped with fire sprinklers. The electrical system appears adequate for current use.

IV. Future Requirements

Enrollment Projections

Over the past three decades, Nashville State has experienced significant enrollment growth, with no significant declines in enrollment year over year since 1993. Even during the Great Recession and subsequent economic recovery, Nashville State continued to add students, losing only 11 students in one year, but growing in every other year.

Between Fall 2005 and Fall 2015, Nashville State was the fastest growing community college in the Tennessee Board of Regents, adding 4.3% on average to its enrollment each year—nearly three times the statewide average. During this same period, enrollment on the Main Campus declined, indicating that all growth is occurring at Nashville State’s other campuses. Data for these figures is provided by the Board of Regents.

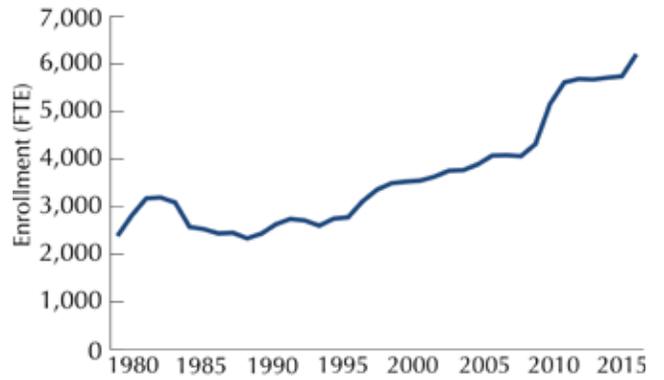
Figure 4c and Table 4a below show the FTE enrollment on each of Nashville State’s owned campuses in Fall 2015, along with two growth benchmarks established by the college to help determine future needs. Enrollment on the Main Campus is expected to continue to decline as it has done since Fall 2011, while other Nashville State campuses capture the regional demand. This ensures that this Master Plan is conservative in its calculations, while also accounting for the expected increase in enrollment growth at the satellite locations and proposed new campuses.

Table 4a: Enrollment Growth Benchmarks (FTE)

Campus	Fall 2015	Benchmark 1	Benchmark 2
Main	3,622	3,550	3,450
Clarksville	447	570	660
Dickson	190	220	250
Humphreys	292	292	292
Southeast	882	1,100	1,300
East Davidson County*	0	195	503
North Davidson County*	0	270	575
Total	5,433	6,197	7,030

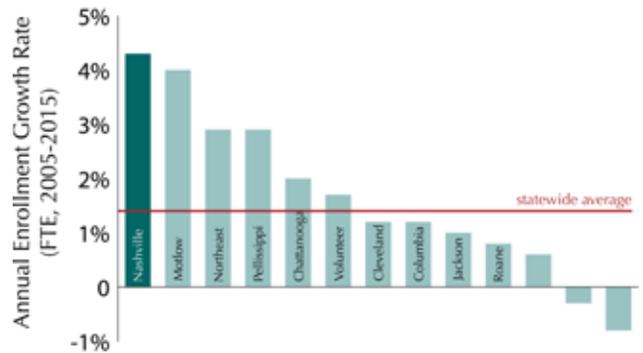
*Proposed

Figure 4a: Historic Institution-Wide Enrollment Growth (FTE)



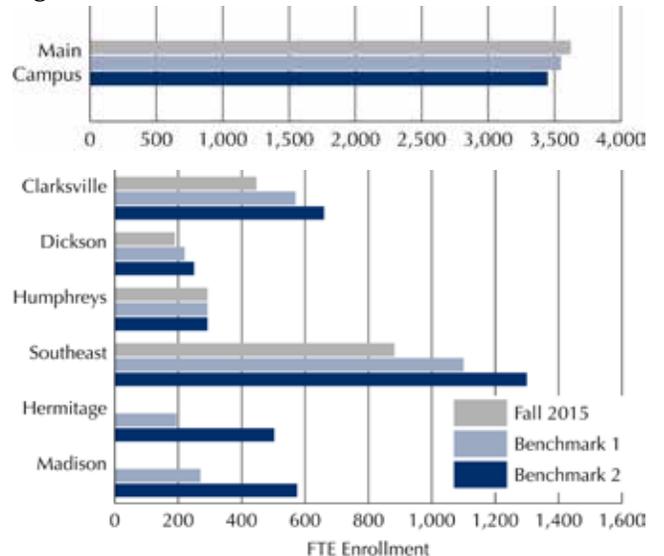
Nashville State’s enrollment has not experienced a significant year over year decline since 1993

Figure 4b: Statewide Growth Rate Comparison



Over the past decade, Nashville State has been the fastest growing public community college in Tennessee

Figure 4c: Enrollment Growth Benchmarks (FTE)

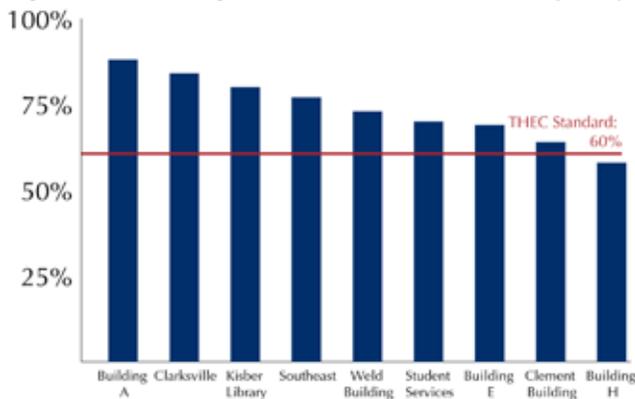


Station Occupancy

Figures 4d and 4e show average station occupancy rates by building and campus for Fall 2015. Average occupancy of classroom (lecture room) stations exceeds the Tennessee Higher Education Commission (THEC) standard of 60% in all buildings except for Building H, which is only 2% shy of the standard, and so is not considered an issue.

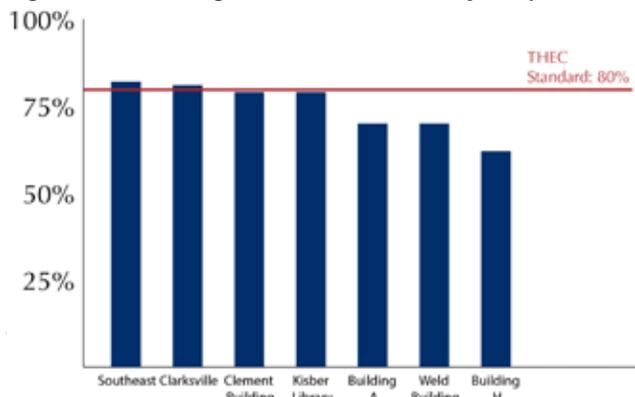
Average occupancy of lab stations is near or exceeds the THEC standard in four of seven buildings where labs are taught. The remainder of the buildings are below but close to the standard, so this is not a cause for concern.

Figure 4d: Average Classroom Station Occupancy



Occupancy is calculated by enrollment, not attendance; college-wide average classroom station occupancy is 75%

Figure 4e: Average Lab Station Occupancy



Occupancy is calculated by enrollment, not attendance; college-wide average lab station occupancy is 76%

Room Utilization

The figures below show an analysis of room utilization by day of week and time of day. Utilization is relatively low on the Main Campus, with only about half of classrooms and labs scheduled at peak, and very low utilization on Fridays. Utilization is higher at the Southeast Campus in the morning, but drops off quickly after 1:00 p.m. Utilization is high on the Clarksville Campus except on Friday, when very few rooms are scheduled.

Figure 4f: Percent of Classrooms and Labs on Main Campus with Scheduled Courses

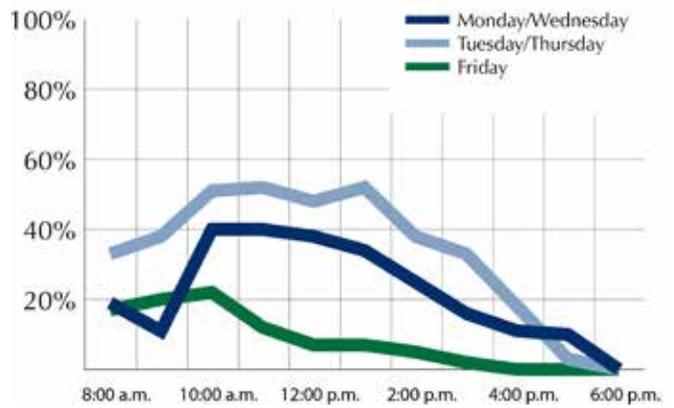


Figure 4g: Percent of Classrooms and Labs on Clarksville Campus with Scheduled Courses

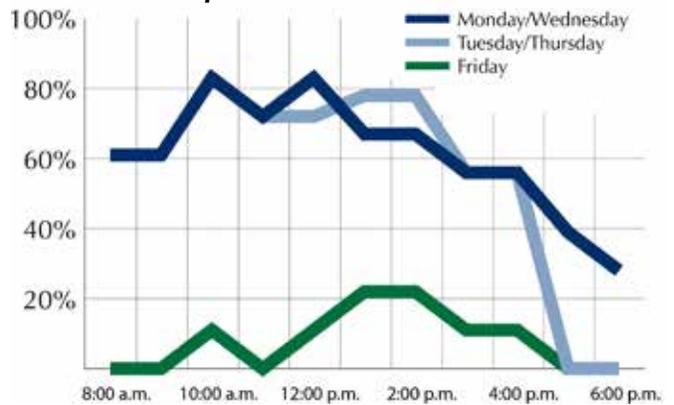
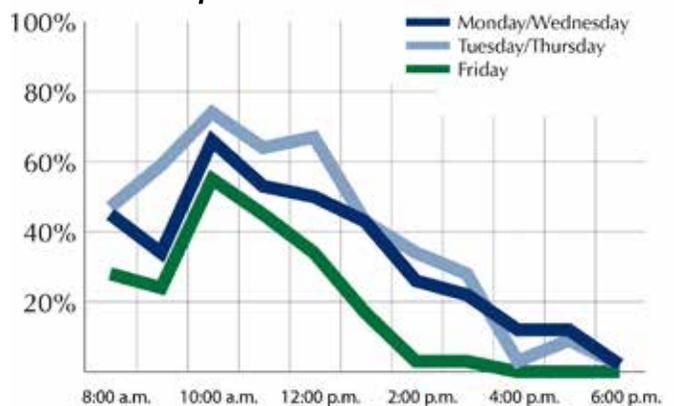


Figure 4h: Percent of Classrooms and Labs on Southeast Campus with Scheduled Courses



Space Modeling

The following sections compare space needs in Fall 2015 and at each of the two growth benchmarks for the Main, Southeast, and Clarksville Campuses. Needs are calculated using the Tennessee Higher Education Commission (THEC) space model and are based on data provided by Nashville State Community College. All areas are given in net assignable square feet, which does not include spaces such as hallways and restrooms that are necessary to serve assignable spaces.

Any space model should be understood as a tool for understanding current and future space needs, not as a precise indicator of exact needs. For the sake of this Master Plan, results of the model are considered alongside information gleaned during interviews with the campus community to provide a more complete picture of space needs.

It is also important to remember that the model addresses only the quantity and not the quality of spaces. In certain older buildings, particularly on the Main Campus, the age of certain facilities may detract from their effective use.

Overview

The model calculates classroom space needs based on the number of classroom contact hours, combined with assumptions about the number of stations (seats) per room and the number of square feet needed for each station. Based on these assumptions, classroom sizes vary from 312 square feet for small seminar rooms to more than 1,000 square feet for larger lecture rooms. The model assumes a station utilization rate of 60% and assumes that classrooms are scheduled for 30 hours per week (Monday through Friday between 7:00 a.m. and 5:00 p.m.). A 30% support allocation is included for storage space and the like.

Class lab space is calculated based on the number of lab sections, total enrollment in those sections, and weekly student contact hours. These are combined with assumptions about station size, which vary based on the type of lab. The model assumes a station utilization rate of 80% and assumes that class labs are scheduled for 20 hours per week (Monday through Friday between 7:00 a.m. and 5:00 p.m.). A 30% support allocation is included for storage space, prep rooms, and the like. Open computer lab calculations are based on the simple assumption of 5 square feet of open lab space per FTE student.

Office space calculations assume individual offices and a certain number of square feet per FTE faculty



Teaching space needs are calculated by the THEC model, based on data provided by the college

member or administrative employee. Office size assumptions vary from 200 square feet or more for senior administration to 120 square feet for a full-time faculty member and 90 square feet for adjunct faculty. A 30% support allocation is included for storage space, conference rooms, break rooms, and the like.

Library space calculations are based on total volume equivalents for stack space and FTE student enrollment for study space, plus an allowance for service space.

Physical education and recreation space calculations are based on the simple assumption of 3 square feet of space per FTE student.

Course Data Edits

All data for the model was provided by the college, and a number of edits were made as follows. Classes with enrollment less than or equal to 2 students were removed, based on the assumption that these were either independent study courses or courses small enough to meet in a professor's office rather than a classroom or lab. Courses that did not fall at least partially within the 7:00 a.m. to 5:00 p.m., Monday through Friday window were also removed from the calculations. Fully online courses and courses taught at high schools or other properties not owned by the college were also not included. Through discussions with the college, it was determined that hybrid courses would be counted at 50% of their contact hours to reflect the fact that they only use physical space approximately 50% of the time.

Finally, edits were made to count all courses that need special equipment (including computers) as labs, even if they were listed in the course catalog as lecture courses. Labs were also assigned to one of five space use groups to account for varying station sizes for different types of labs. This was done according to CIP

code or based on reasonable assumptions for those labs with CIP codes that were not listed in the THEC model user's manual.

Assumptions and Explanation of Figures

The figures on the following pages use bar charts to show space needs as a percentage of existing space, such that longer bars show greater need relative to the amount of existing space. Bars that run to the left show an existing surplus of space (a "negative" need for space).

Because the length of the bars reflects proportional needs rather than square foot needs, some categories may show greater needs than other categories even though their square footage needs are small. For this reason, square footage needs are shown on each figure and in the tables that follow. All numbers provided are in net square feet.

All numbers shown in this section come from the THEC model, but the results of the consultant's proprietary model are shown in the Appendix for comparison.

One problematic area identified during the development of this Master Plan is the limitation of the THEC model regarding Learning Support space. Because

Learning Support courses use special computer lab arrangements and are self-paced, the number of contact hours and station sizes may not correspond to the model's assumptions.

Throughout this section, straight-line growth projections are assumed, without accounting for the subtleties of new course sizes, the number of new courses, and the specific numbers of required faculty and administrators. These detailed calculations were deemed beyond the scope of this planning effort.

Main Campus

Tables 4b, 4c, and 4d show the amount of existing square footage in each space category on the Main Campus, as well as space projected to be needed at each of the two growth benchmarks described above. There is a surplus of teaching spaces, administrative offices, and library space, but a need for additional open lab space, faculty office space, and physical education/recreation space.

Space needs are summarized graphically in Figure 4i, which shows existing and needed space in each category. Longer bars on this chart show greater need proportional to the amount of existing space; actual square foot needs are shown in numbers and

Table 4b: Main Campus Fall 2015 Space Needs (net assignable square feet)

	Class-rooms	Class Labs	Open Labs	Faculty Offices	Admin. Offices	Library	Phys. Ed./ Recreation
Fall 2015 Space Needs	25,122	67,734	12,326	27,816	28,655	18,801	7,396
Existing Space Available	37,041	72,817	4,491	26,862	37,518	23,324	3,747
Net Space Surplus (Shortage)	11,919	5,083	(7,835)	(954)	8,863	4,523	(3,649)
Need as % of Available Space	-32%	-7%	174%	4%	-24%	-19%	97%

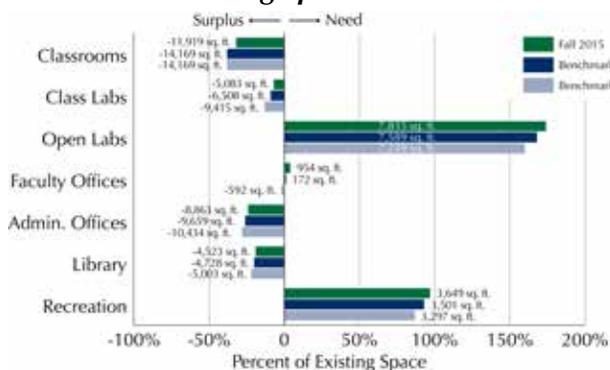
Table 4c: Main Campus Benchmark 1 Space Needs (net assignable square feet)

	Class-rooms	Class Labs	Open Labs	Faculty Offices	Admin. Offices	Library	Phys. Ed./ Recreation
Fall 2015 Space Needs	22,872	66,309	12,080	27,034	27,859	18,596	7,248
Existing Space Available	37,041	72,817	4,491	26,862	37,518	23,324	3,747
Net Space Surplus (Shortage)	14,169	6,508	(7,589)	(172)	9,659	4,728	(3,501)
Need as % of Available Space	-38%	-9%	169%	1%	-26%	-20%	93%

Table 4d: Main Campus Benchmark 2 Space Needs (net assignable square feet)

	Class-rooms	Class Labs	Open Labs	Faculty Offices	Admin. Offices	Library	Phys. Ed./ Recreation
Fall 2015 Space Needs	22,872	63,402	11,740	26,270	27,084	18,321	7,044
Existing Space Available	37,041	72,817	4,491	26,862	37,518	23,324	3,747
Net Space Surplus (Shortage)	14,169	9,415	(7,249)	592	10,434	5,003	(3,297)
Need as % of Available Space	-38%	-13%	161%	-2%	-28%	-21%	88%

Figure 4i. Main Campus Calculated Space Needs as Percent of Existing Space

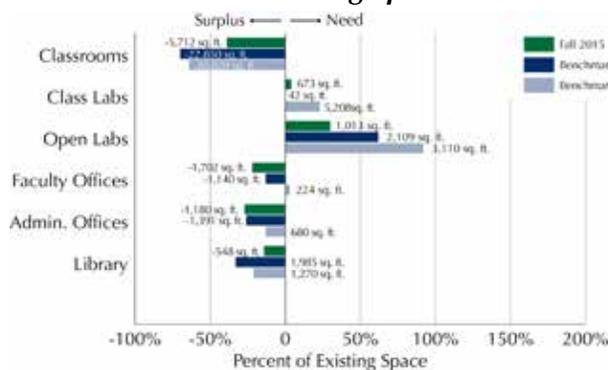


in the tables below. Overall, there is a surplus of approximately 18,000 square feet of assignable space. This surplus is expected to continue to increase as enrollment declines on the Main Campus. The most significant need is for open lab space. Results of the consultant’s proprietary model, which corroborate the THEC model results, are shown in more detail in the Appendix.

Southeast Campus

Tables 4e, 4f, and 4g and Figure 4j show the existing space and existing and future space needs on the

Figure 4j. Southeast Campus Calculated Space Needs as Percent of Existing Space



Southeast Campus. Fall 2015 numbers include only the first floor of this campus. Future growth benchmarks 1 and 2 include the second floor, which opened in Fall 2016.

The surplus of classroom space in Fall 2015 was significantly increased by the additional classroom space on the second floor, and will continue to be a surplus even as enrollment grows. There is and will continue to be a need for additional computer lab space, both teaching labs and open labs. Some excess space could be converted to computer lab space to meet these needs. Office space is and will continue to be

Table 4e: Southeast Campus Fall 2015 Space Needs (net assignable square feet)

	Class-rooms	Class Labs	Open Labs	Faculty Offices	Admin. Offices	Library	Phys. Ed./ Recreation
Fall 2015 Space Needs	8,912	18,849	4,408	6,007	3,130	3,337	2,645
Existing Space Available	14,624	18,176	3,395	7,709	4,310	3,885	0
Net Space Surplus (Shortage)	5,712	(673)	(1,013)	1,702	1,180	548	(2,645)
Need as % of Available Space	-39%	4%	30%	-22%	-27%	-14%	n/a

Table 4f: Southeast Campus Benchmark 1 Space Needs (net assignable square feet)

	Class-rooms	Class Labs	Open Labs	Faculty Offices	Admin. Offices	Library	Phys. Ed./ Recreation
Fall 2015 Space Needs	9,632	22,290	5,504	7,501	3,910	4,120	3,302
Existing Space Available	32,482	22,248	3,395	8,641	5,301	6,105	0
Net Space Surplus (Shortage)	22,850	(42)	(2,109)	1,140	1,391	1,985	(3,302)
Need as % of Available Space	-70%	0%	62%	-13%	-26%	-33%	n/a

Table 4g: Southeast Campus Benchmark 2 Space Needs (net assignable square feet)

	Class-rooms	Class Labs	Open Labs	Faculty Offices	Admin. Offices	Library	Phys. Ed./ Recreation
Fall 2015 Space Needs	11,662	27,456	6,505	8,865	4,622	4,835	3,903
Existing Space Available	32,482	22,248	3,395	8,641	5,301	6,105	0
Net Space Surplus (Shortage)	20,820	(5,208)	(3,110)	(224)	680	1,270	(3,903)
Need as % of Available Space	-64%	23%	92%	3%	-13%	-21%	n/a

adequate, as will library space. There is a need for physical education/recreation space, as there is currently none on this campus.

Clarksville Campus

Tables 4h, 4i, and 4j and Figure 4k show the existing space and existing and future space needs on the Clarksville Campus. The THEC model shows a need for every type of space except for administrative office space, which is likely due to the small number of administrative staff currently on the campus. In Fall 2015, the campus was short nearly 11,000 square feet of total assignable square feet of space. By Benchmark 2, this number is expected to increase to more than 22,000 assignable square feet.

Figure 4k. Clarksville Campus Calculated Space Needs as Percent of Existing Space

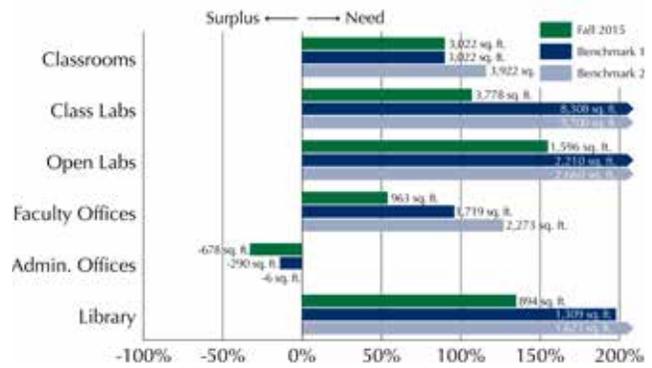


Table 4h: Clarksville Campus Fall 2015 Space Needs (net assignable square feet)

	Class-rooms	Class Labs	Open Labs	Faculty Offices	Admin. Offices	Library	Phys. Ed./ Recreation
Fall 2015 Space Needs	6,392	7,314	2,236	2,755	1,407	1,554	1,342
Existing Space Available	3,370	3,536	640	1,792	2,085	660	0
Net Space Surplus (Shortage)	(3,022)	(3,778)	(1,596)	(963)	678	(894)	(1,342)
Need as % of Available Space	90%	107%	249%	54%	-33%	135%	n/a

Table 4i: Clarksville Campus Benchmark 1 Space Needs (net assignable square feet)

	Class-rooms	Class Labs	Open Labs	Faculty Offices	Admin. Offices	Library	Phys. Ed./ Recreation
Fall 2015 Space Needs	7,292	11,844	2,850	3,511	1,795	1,969	1,710
Existing Space Available	3,370	3,536	640	1,792	2,085	660	0
Net Space Surplus (Shortage)	(3,022)	(8,308)	(2,210)	(1,719)	290	(1,309)	(1,710)
Need as % of Available Space	90%	235%	316%	83%	-20%	183%	n/a

Table 4j: Clarksville Campus Benchmark 2 Space Needs (net assignable square feet)

	Class-rooms	Class Labs	Open Labs	Faculty Offices	Admin. Offices	Library	Phys. Ed./ Recreation
Fall 2015 Space Needs	7,292	13,236	3,300	4,065	2,079	2,283	1,980
Existing Space Available	3,370	3,536	640	1,792	2,085	660	0
Net Space Surplus (Shortage)	(3,922)	(9,700)	(2,660)	(2,273)	6	(1,623)	(1,980)
Need as % of Available Space	116%	274%	416%	127%	0%	246%	n/a

Parking Projections

Tables 4k and 4l below show the projected parking needs for the Main, Southeast, and Clarksville Campuses for both of the future growth benchmarks. Campus population numbers are based on the growth benchmarks described above, and assume that faculty and staff grow or shrink at the same rate as the student population on each campus. Due to the small size of all campuses, parking arrangement is efficient and walking times between parking and buildings are minimal.

The Main Campus is accessible by bicycle via the greenway and local streets, given its urban location. The Southeast Campus is also somewhat bicycle accessible. Wilma Rudolph Boulevard in front of the Clarksville Campus is not safe for cyclists.

All three campus are served by public transportation, so it is assumed that a small percentage of students and employees arrive by bus, except at the Clarksville Campus, where the bus system carries fewer passengers.

The parking deficit on the Main Campus is expected to continue to decrease as enrollment declines on this campus, so no parking expansions are recommended. The Southeast Campus will have a need for additional parking deficit by Benchmark 2, but this could likely be addressed by negotiating for the exclusive use of a larger area of the existing mall parking lot. The future parking deficit on the Clarksville campus will need to be addressed through the physical construction of additional parking spaces, in the location shown in the plan on page 73.

Table 4k: Growth Benchmark 1 Peak Parking Needs

	Campus Population*	Parking Spaces Needed	Existing Parking Spaces	Surplus or Deficit
Main Campus	6,899	2,070	1,723	(347)
Southeast	2,355	706	759	53
Clarksville	894	322	275	(47)

Table 4l: Growth Benchmark 2 Peak Parking Needs

	Campus Population*	Parking Spaces Needed	Existing Parking Spaces	Surplus or Deficit
Main Campus	6,698	2,009	1,723	(286)
Southeast	2,783	835	759	(76)
Clarksville	1,034	372	275	(97)

*Campus population is based on the total headcount of students and administrative staff at each site, plus the number of full time equivalent faculty at each site. FTE faculty numbers are used to account for the large number of adjunct faculty.

Facilities Needs

A number of needs were identified with regard to building systems. The most significant of these are in Building W, which needs a complete upgrade of its electrical, mechanical, and fire protections systems. Mechanical system upgrades in Building C are also required, as are electrical system upgrades in Building K.



A number of mechanical upgrades are required on the Main Campus

Land Acquisition

The land acquisition plan for each Nashville State campus on the following pages will ensure that the college has adequate land in the coming years for future expansions.

Main Campus

While no immediate expansions were identified for new buildings or parking, two parcels are shown for future acquisition in order to provide land for future expansions, whether of buildings, parking, support facilities, detention ponds, or other uses. These are the National Guard facility, which is currently surrounded by college property on three sides, and the Tennessee Valley Authority property. Some of these properties are in the flood plain, but a significant portion of them would be available for development.

Clarksville Campus

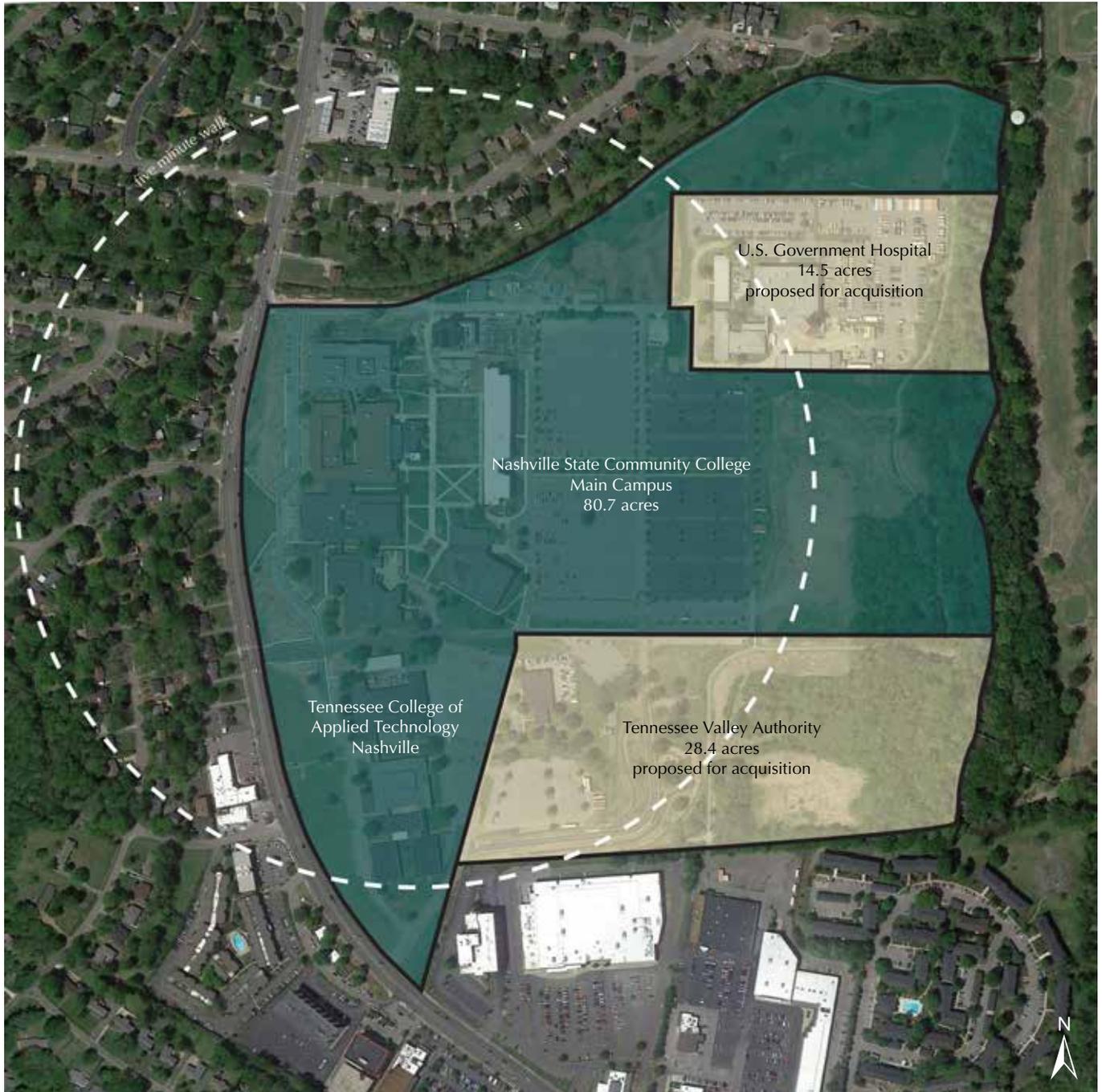
This campus currently has enough land to provide a significant expansion of its existing facilities and parking, but future expansions would need to occur in a linear fashion that is less than ideal from a campus design and access perspective. In order to provide for a more orderly expansion, it is recommended that the property immediately to the south be acquired.

Due to this parcel's frontage on a heavily traveled highway, the front of the parcel could be sold for private development. The remainder of the property, which would be less desirable for commercial development because of the lack of frontage, could remain for use by the college.

Figure 4m. Proposed Land Acquisition Adjacent to Clarksville Campus



Figure 4I. Proposed Land Acquisition Adjacent to Main Campus



V. Preliminary Master Plan

Needs on Existing Campuses

Given that the space model shows a surplus of space on the Main Campus and that enrollment is projected to continue to decline on the Main Campus, no conceptual alternatives were developed for future growth. Needs at the Southeast campus for both growth benchmarks are met by the space provided on the second floor, so no alternatives were developed for that campus. A single solution was prepared to meet needs on the Clarksville campus, as shown in Part VI below.

Potential New Campuses

The feasibility of additional campuses is a key focus of this Master Plan. The demographic analysis identified several positive indicators in portions of the Nashville State service area.

There is a need for postsecondary education in the service area, and the existing Clarksville, Main, and Southeast Campuses are particularly well located with regard to demand and future growth. The eastern portion of Davidson County is a good location for a future campus, given the significant number of high school graduates without a college education who reside in that area, as well as the proximity to low wage jobs.

The northeastern portion of Davidson County is also a good location for a future campus and has a significant number of residents who are high school graduates without a college education. While the campus was initially considering a location west of I-24, a more northern location is closer to more residents without a college education and more low-wage jobs, while also being farther from the Main Campus to avoid competition, as shown in Figure 11.

Regional population growth projections, combined with Nashville State's relatively low participation rate, are also significant indicators of favorable enrollment growth. The eastern and northern portions of Davidson County are among the areas that are likely to attract students and contribute to institution-wide enrollment growth. More specific recommendations for new campuses are shown in the following section.



Potential new campuses were considered to help serve unreached populations, especially in Davidson County



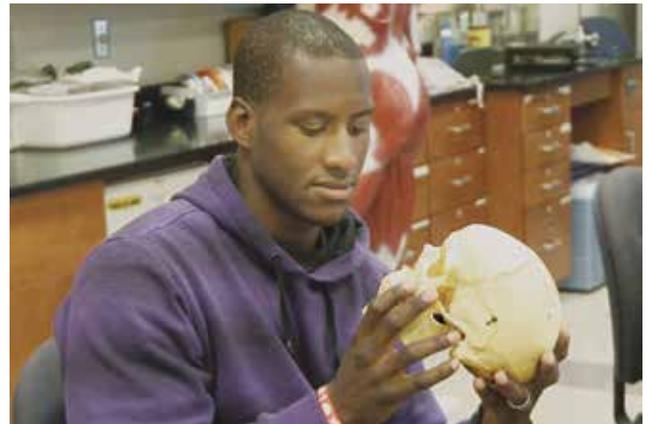
Potential new campuses should be located near bus stops

VI. Master Plan

New Davidson County Campuses

This Master Plan recommends the creation of two new Nashville State campuses within Davidson County, one in eastern Davidson County, and another in the northeastern portion of Davidson County. These campuses could be housed in leased or owned spaces. Care should be taken to make sure their final locations correspond with the areas of need shown in Figure 1I, and are located sufficiently far from the Main Campus to avoid competition, as well as being located at or near an existing bus stop.

Academic plans have not yet been developed for the proposed campuses, so a standard set of academic programs was assumed for the North Davidson campus, and no programs were identified for the East Davidson campus, as shown in Table 6b. Enrollment targets were based on numbers provided by Nashville State and assume that enrollment continues to decrease on the Main Campus, but increase institution wide. Based on these enrollments, the North Davidson Campus could be expected to need 159 parking spaces by growth benchmark 1 and 338 parking spaces by growth benchmark 2. The East Davidson Campus could be expected to need 115 and 296 parking spaces for its respective growth benchmarks.



Generic needs were assumed for both proposed campuses, since an academic program has not yet been developed

Table 6a: Proposed North Davidson Campus FTE Enrollment by Academic Program

Academic Program	FTE Growth Benchmark 1	FTE Growth Benchmark 2
General Education	70	200
Early Childhood Development	40	75
Business Management	40	75
Computer Technology	40	75
Information Security	40	75
Teaching	40	75
Total Estimated FTE Enrollment	270	575

Table 6b: Proposed East Davidson Campus FTE Enrollment by Academic Program

Academic Program	FTE Growth Benchmark 1	FTE Growth Benchmark 2
General Education	75	203
Program A	40	60
Program B	40	60
Program C	40	60
Program D	0	60
Program E	0	60
Total Estimated FTE Enrollment	195	503

In order to calculate the rough amount of space needed at each of these proposed sites, THEC model assumptions were used to provide benchmarks for station size, room utilization, and station occupancy. Space needs would be significantly less if rooms were not fully occupied and scheduled. Furthermore, it was assumed that each FTE student would have 10.2 weekly student contact hours for classrooms, and 4.4

weekly student contact hours for labs, based on Fall 2015 numbers at the existing Clarksville Campus. For non-teaching spaces, a number of other assumptions were made regarding student/faculty ratio, student headcount/FTE ratio, and support space needs. Combined, the estimated needs for each campus are shown in Tables 6c and 6d below.

Table 6c: Proposed North Davidson Campus Estimated Space Needs

Summary	Growth Benchmark 1	Growth Benchmark 2
Total Classroom Space Needed	2,754 sq. ft.	5,865 sq. ft.
Total Lab Space Needed	4,578 sq. ft.	9,483 sq. ft.
Total Office Space Needed	2,374 sq. ft.	5,055 sq. ft.
Total Other Space Needed	2,160 sq. ft.	4,600 sq. ft.
Total Estimated Net Space Needed	11,866 sq. ft.	25,003 sq. ft.
Assumed Grossing Factor	30%	30%
Total Estimated Gross Space Needed	15,425 sq. ft.	32,504 sq. ft.

Table 6d: Proposed East Davidson Campus Estimated Space Needs

Summary	Growth Benchmark 1	Growth Benchmark 2
Total Classroom Space Needed	1,989 sq. ft.	5,131 sq. ft.
Total Lab Space Needed	2,289 sq. ft.	5,794 sq. ft.
Total Office Space Needed	1,714 sq. ft.	4,422 sq. ft.
Total Other Space Needed	1,670 sq. ft.	4,024 sq. ft.
Total Estimated Net Space Needed	7,662 sq. ft.	19,371 sq. ft.
Assumed Grossing Factor	30%	30%
Total Estimated Gross Space Needed	9,961 sq. ft.	25,183 sq. ft.

Quadrangle Improvements on Main Campus

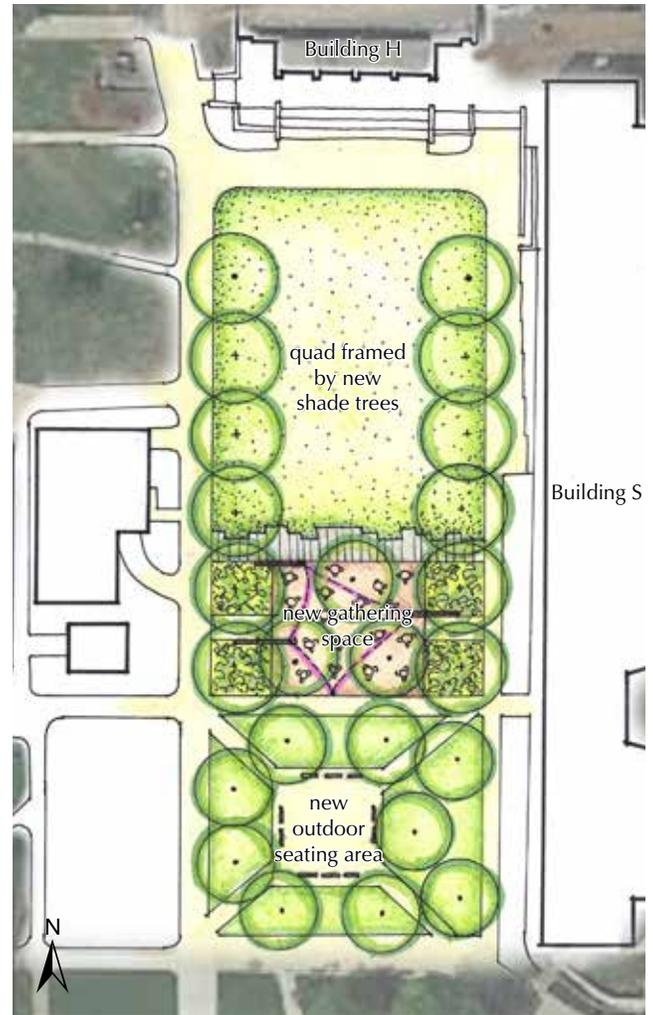
The quad is the center of the Main Campus, but currently lacks definition. Its dated furnishings, distressed trees, and lack of landscaping and other elements that might attract students mean that it is used mostly as a pass-through on the way to class.

Two options were developed for improvements to the main quad that would bring life to the space, provide a fitting front door for the new buildings, and create a true outdoor room for students to use and enjoy. They are shown at right and on the following page.

Option 1 would replace the existing trees with healthy shade trees to create the feel of a traditional academic quad. Adequate soil should be provided to ensure that trees thrive and reach maturity. South of the traditional quad is a more contemporary gathering space defined by crushed granite paving, cafe tables and chairs, and a sun shade. This would create a collegiate atmosphere for studying, socializing, and eating. A third area further to the south would provide a better transition to the library and seating walls for those desiring a less active place to study.

Option 2 also replaces the existing trees with mature shade trees, but includes more contemporary mini-plazas and landscape elements that double as seating areas. These would complement the contemporary architecture and provide functional gathering places. At the north end of the quadrangle, the existing monumental stairs at Building H, which currently receive very little use, would be transformed by the addition of simple pavers into an active event space, suitable for informal athletics, studying, and eating, as well as more formal events. The seating area to the south would be the same as in Option 1.

Figure 6a: Main Campus Quad Improvements Option 1



Ensuring that trees mature will eventually create a robust tree canopy and a true academic quad

**Figure 6a: Main Campus Quad Improvements
Option 2**



Movable tables and chairs, combined with new trees, could create a new plaza to activate the space in front of Building H

Clarksville Campus Expansion

The existing Clarksville Campus needs additional space of all types, and needs will continue to grow as enrollment increases. To meet needs projected by growth benchmark 2, a new building should be constructed at approximately 28,000 gross square feet. This building should primarily contain lab space, but may also need to include classroom, office, and library space to meet needs, depending on how spaces in the existing building are backfilled.

In order to begin to create a true campus feel, it is recommended that the proposed building be located on the upper parking lot. This will not only minimize construction costs given the proximity of utilities and an already graded site; it will also allow for the construction of a new quadrangle or plaza to provide outdoor spaces for students to study, interact, and eat lunch—a significant need on a small campus that currently lacks any outdoor gathering spaces.

Due to the displaced parking spaces and projected enrollment growth, a new parking lot will need to be constructed to the west. This lot should bring the total number of parking spaces on this campus up to 372. When this new lot is constructed, a new access drive should also be constructed to connect the campus with Old Trenton Road to the west. This will provide a much needed additional access point, relieve traffic at peak times, and reduce the need for dangerous left turns onto Wilma Rudolph Boulevard.

Figure 6c: Clarksville Proposed Access Drive



Figure 6d: Clarksville Campus Master Plan



VII. Implementation

Cost Estimates

Table 7a below lists each project proposed by this Master Plan. The list includes all physical improvements, except minor repairs or renovations, including the proposed new campuses. Priorities may vary in the future based on funding ability, campus priorities, or the desire to combine projects with other efforts.

Short term refers to projects that should begin immediately; medium term projects should be completed in the next five years; long term projects should be a later priority. The cost estimates provide a rough figure for the total cost of each project, including design and installation if applicable.



Recent new buildings on the Main Campus mean that no new buildings are proposed for that campus

Table 7a: Cost Estimates for Proposed Improvements on Main Campus

Recommended Project	Priority	Rough Cost Estimate	Funding Source
Main Campus quad improvements	Medium Term	\$350,000	Local
Main Campus parking lot new tree islands	Medium Term	\$20,000	Local
Clarksville Campus access drive	Long Term	\$1,000,000	State Capital Outlay
Clarksville Campus new building	Medium Term	\$6,000,000	State Capital Outlay
Clarksville Campus parking expansion	Medium Term	\$1,200,000	State Capital Outlay
New East Davidson Campus	Medium Term	TBD	State Capital Outlay
New North Davidson Campus	Medium Term	TBD	State Capital Outlay
Building W Systems Upgrades	Medium Term	\$2,000,000	State Capital Maintenance
Building A Fire Protection System Upgrades	Medium Term	\$250,000	State Capital Maintenance
Building C Upgrades to HVAC System	Medium Term	\$600,000	State Capital Maintenance
Building A Fire Protection System Upgrades	Medium Term	\$50,000	State Capital Maintenance
Building E Fire Protection & Electrical System Upgrades	Medium Term	\$100,000	State Capital Maintenance
Building K Electrical System Upgrades	Medium Term	\$350,000	State Capital Maintenance

Appendix

Academic Space Utilization

Part IV above provided figures showing space utilization for each building; Table 8a at right provides detailed occupancy numbers. Station occupancy data show the percent of stations that are occupied in each classroom or class lab. Rooms that are not in use do not figure into the calculation, and occupancy is based on enrollment, not attendance.

Space utilization numbers are calculated by counting the number of courses in session at each hour of the academic day and day of the week, and dividing that number by the number of rooms available for teaching. This creates a percentage that reflects the proportion of lecture rooms and class labs in use. Table 8b shows detailed utilization numbers for each campus.

Table 8a: Station Occupancy, Fall 2015

Building	Classroom Stations	Lab Stations
Building A	88%	70%
Clement Building	64%	79%
Building E	69%	n/a
Building H	58%	62%
Kisber Library	80%	79%
Student Services Building	70%	n/a
Weld Building	73%	70%
Main Campus Average	73%	74%
Southeast Campus	77%	82%
Clarksville Campus	84%	81%
COLLEGE-WIDE AVERAGE	75%	76%

Table 8b. Room Utilization, Fall 2015 (continued on next page)

Day	Time	LECTURE ROOMS UTILIZED			CLASS LABS UTILIZED		
		Main Campus	Southeast Campus	Clarksville Campus	Main Campus	Southeast Campus	Clarksville Campus
Monday	8:00 a.m.	30%	47%	60%	11%	36%	50%
	9:00 a.m.	8%	24%	60%	11%	45%	50%
	10:00 a.m.	60%	71%	100%	23%	55%	50%
	11:00 a.m.	58%	53%	80%	25%	55%	50%
	12:00 p.m.	46%	53%	100%	31%	45%	50%
	1:00 p.m.	42%	47%	80%	27%	36%	50%
	2:00 p.m.	20%	24%	100%	31%	27%	25%
	3:00 p.m.	4%	18%	80%	25%	27%	25%
	4:00 p.m.	6%	12%	80%	14%	9%	25%
	5:00 p.m.	10%	18%	40%	10%	0%	50%
Tuesday	6:00 p.m.	0%	0%	20%	0%	0%	50%
	8:00 a.m.	52%	65%	60%	20%	27%	75%
	9:00 a.m.	54%	76%	60%	25%	36%	75%
	10:00 a.m.	70%	71%	100%	37%	82%	75%
	11:00 a.m.	64%	65%	80%	44%	64%	75%
	12:00 p.m.	62%	65%	80%	38%	82%	75%
	1:00 p.m.	58%	35%	100%	48%	55%	50%
	2:00 p.m.	38%	41%	100%	41%	27%	50%
	3:00 p.m.	34%	41%	80%	32%	9%	25%
	4:00 p.m.	8%	0%	80%	25%	9%	25%
5:00 p.m.	2%	6%	0%	4%	18%	0%	
6:00 p.m.	0%	0%	0%	0%	9%	0%	

Table 8b. Lecture and Lab Room Utilization, Fall 2015 (continued from previous page)

Day	Time	LECTURE ROOMS UTILIZED			CLASS LABS UTILIZED		
		Main Campus	Southeast Campus	Clarksville Campus	Main Campus	Southeast Campus	Clarksville Campus
Wednesday	8:00 a.m.	30%	53%	60%	13%	45%	75%
	9:00 a.m.	8%	24%	60%	15%	64%	75%
	10:00 a.m.	58%	71%	100%	30%	73%	75%
	11:00 a.m.	54%	53%	80%	32%	64%	75%
	12:00 p.m.	48%	47%	100%	34%	64%	75%
	1:00 p.m.	42%	53%	80%	31%	36%	50%
	2:00 p.m.	18%	24%	100%	28%	36%	25%
	3:00 p.m.	2%	24%	80%	25%	27%	25%
	4:00 p.m.	4%	18%	80%	17%	9%	25%
	5:00 p.m.	8%	12%	40%	11%	18%	25%
	6:00 p.m.	0%	0%	20%	1%	9%	25%
Thursday	8:00 p.m.	54%	59%	60%	20%	27%	50%
	9:00 a.m.	56%	76%	60%	27%	36%	50%
	10:00 a.m.	70%	71%	100%	38%	91%	50%
	11:00 a.m.	64%	65%	80%	45%	73%	50%
	12:00 p.m.	62%	65%	80%	38%	73%	50%
	1:00 p.m.	60%	35%	100%	45%	64%	50%
	2:00 p.m.	38%	41%	100%	37%	27%	50%
	3:00 p.m.	36%	41%	80%	30%	9%	25%
	4:00 p.m.	8%	0%	80%	24%	9%	25%
	5:00 p.m.	2%	6%	0%	4%	9%	0%
	6:00 p.m.	0%	0%	0%	1%	0%	0%
Friday	8:00 a.m.	26%	35%	0%	10%	18%	0%
	9:00 a.m.	4%	18%	0%	11%	36%	0%
	10:00 a.m.	56%	65%	20%	21%	45%	0%
	11:00 a.m.	50%	53%	0%	18%	36%	0%
	12:00 p.m.	42%	47%	20%	20%	18%	0%
	1:00 p.m.	38%	29%	40%	14%	0%	0%
	2:00 p.m.	16%	6%	40%	6%	0%	0%
	3:00 p.m.	0%	6%	20%	3%	0%	0%
	4:00 p.m.	0%	0%	20%	0%	0%	0%
	5:00 p.m.	0%	0%	0%	0%	0%	0%
	6:00 p.m.	0%	0%	0%	0%	0%	0%

Proprietary Model Space Projections

While the Tennessee Higher Education Commission (THEC) space model is considered the authority for the sake of this Master Plan, space needs were also calculated using the master planning consultant's proprietary model, in order to verify and provide an additional perspective on THEC model results.

Comparisons of the results of the two models are shown in the figures on the following pages, which depict needs according to the THEC model with dark blue bars and those from the proprietary model with green bars. Detailed results of the proprietary model are shown in the tables on the following pages. The results of both models are generally consistent with each other.

Mathematically speaking, the proprietary model uses FTE or contact hour data to generate needs in most cases, while the THEC model calculates needs in terms of course sections. For this reason, there is a rounding effect in the THEC model that is particularly evident in needs calculations for smaller campuses.

Data for the proprietary model was provided by the College, and edited as described on pages 54-56 to remove evening and weekend classes, independent studies, and online classes. All growth benchmarks are identical with those used for the THEC model and shown on page 53.

Overall, the results of the proprietary model confirm those of the THEC model: the need for all types of space on the Clarksville Campus, and a surplus of space overall on the Main Campus and Southeast Campus.

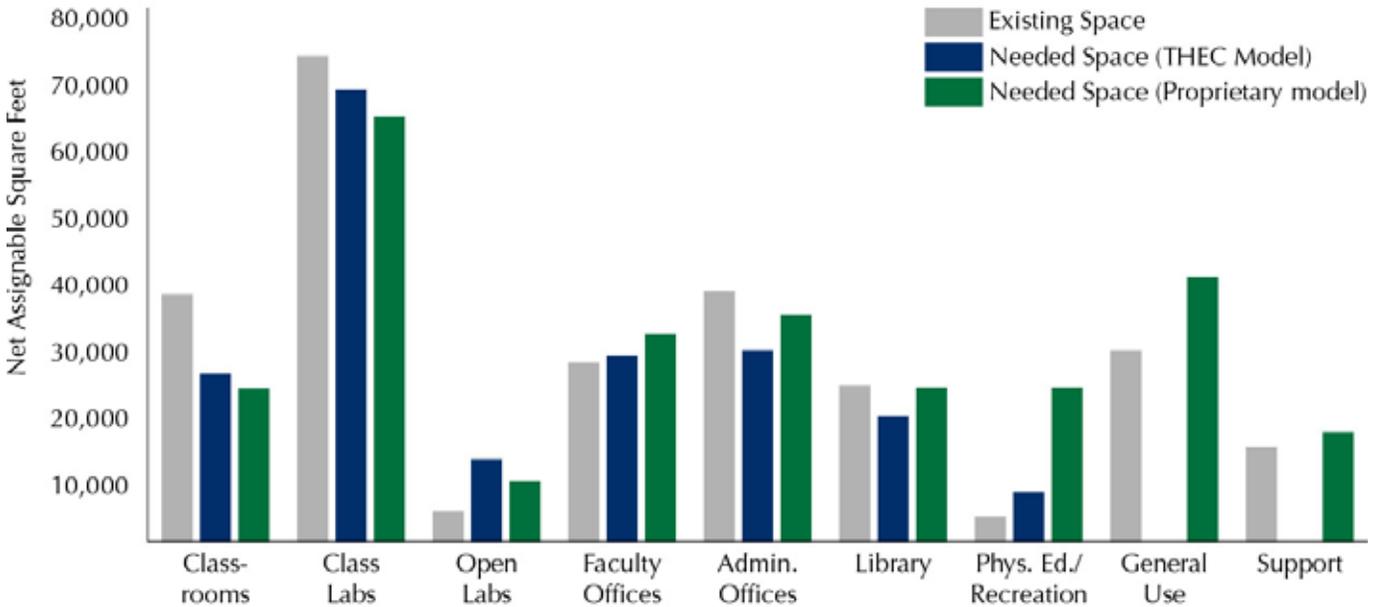
Main Campus

Figure 8a below compares existing space on the Main Campus with existing space needs as calculated by the THEC model and the master planning consultant's proprietary model. Detailed results of the proprietary model are shown below in Table 8c. Figure 8b and Table 8d on the following page show the same results for Benchmark 2.

In general, the proprietary model confirms the results of the THEC model, although it does show slightly less need for teaching space and more need for office

space. The only major needs it identifies are for open lab space and recreation space. General use space (which includes cafeteria, lounge, and assembly space) is not adequate. There is a small need for additional support space (which includes facilities and shop space). Due to the projected decline in enrollment on the Main Campus, needs are less in all categories by Benchmark 2.

Figure 8a. Main Campus Fall 2015 Comparison of Existing Space and Calculated Space Needs According to Both Models

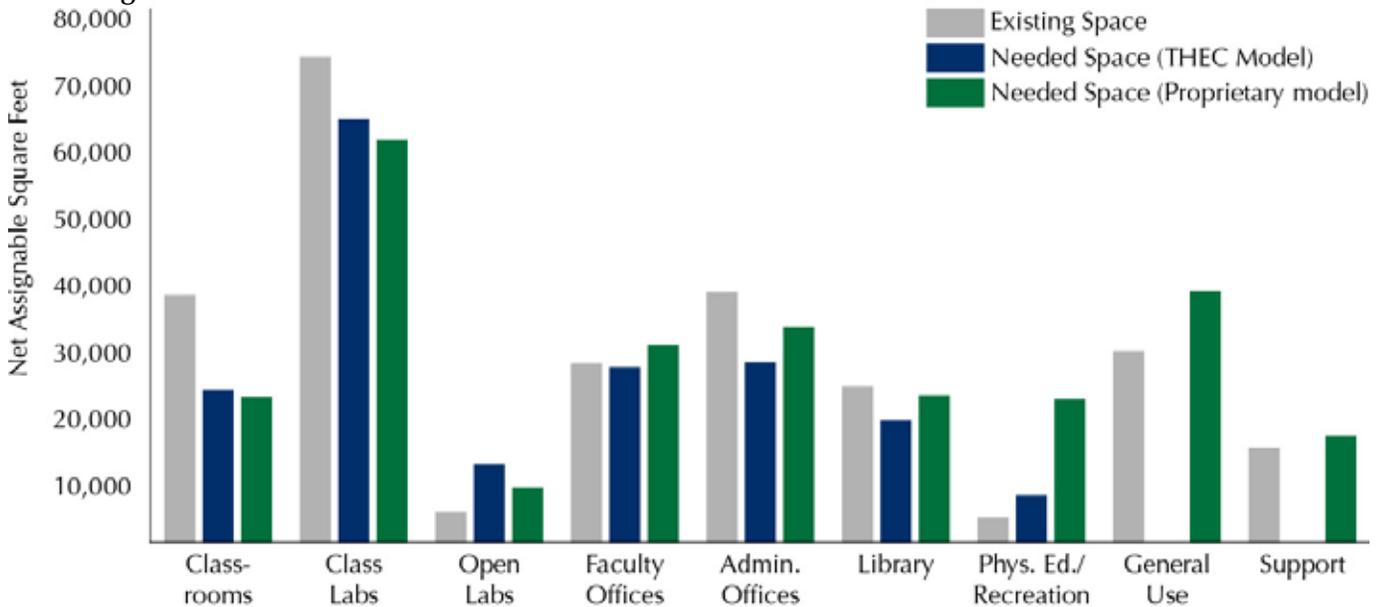


Missing bars indicate space needs not calculated by the THEC model

Table 8c: Main Campus Fall 2015 Proprietary Model Space Needs (net assignable square feet)

	Class-rooms	Class Labs	Open Labs	Faculty Offices	Admin. Offices	Library	Phys. Ed./Recreation	General Use	Support
Fall 2015 Space Needs	22,996	63,716	9,056	31,136	34,026	23,119	23,112	39,682	16,395
Existing Space Available	37,041	72,817	4,491	26,862	37,518	23,324	3,747	28,642	14,152
Net Space Surplus (Shortage)	14,045	9,101	(4,565)	(4,274)	3,492	205	(19,365)	(11,040)	(2,243)
Need as % of Available Space	-38%	-12%	102%	16%	-9%	-1%	517%	39%	16%

Figure 8b. Main Campus Benchmark 2 Comparison of Existing Space and Calculated Space Needs According to Both Models



Missing bars indicate space needs not calculated by the THEC model

Table 8d: Main Campus Benchmark 2 Proprietary Model Space Needs (net assignable square feet)

	Class-rooms	Class Labs	Open Labs	Faculty Offices	Admin. Offices	Library	Phys. Ed./ Recreation	General Use	Support
Benchmark 2 Space Needs	21,810	60,429	8,250	29,571	32,270	22,042	21,500	37,680	11,867
Space Available	37,041	72,817	4,491	26,862	37,518	23,324	3,747	28,642	14,152
Net Space Surplus (Shortage)	15,231	12,388	(3,759)	(2,709)	5,248	1,282	(17,753)	(9,038)	(1,840)
Need as % of Available Space	-41%	-17%	84%	10%	-14%	-5%	474%	32%	13%

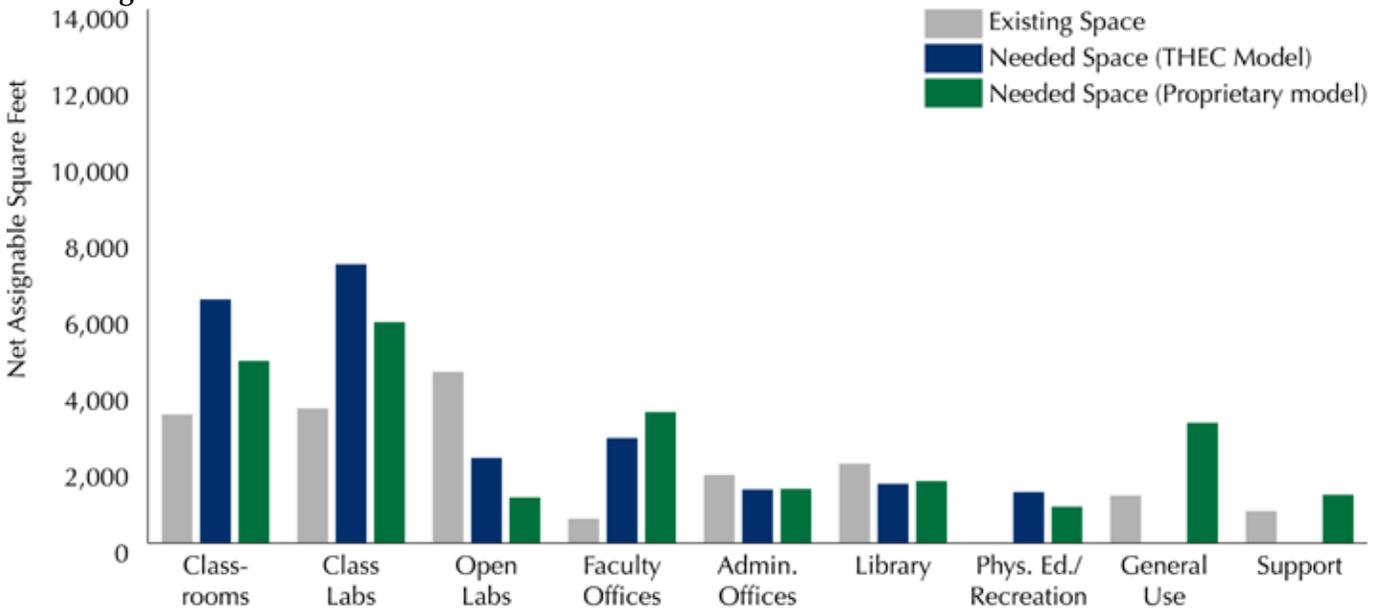
Clarksville Campus

Figure 8c below compares existing space on the Clarksville with existing space needs as calculated by the THEC model and the master planning consultant's proprietary model. Detailed results of the proprietary model are shown below in Table 8e. Figure 8d and Table 8f on the following page show the same results for Benchmark 2.

Overall, the Clarksville campus shows a need for additional space in almost every category, according to both the THEC model and the proprietary model, both

now and in the future. The proprietary model shows a need for less space due to its finer grain and how it applies to small campuses. The most significant needs are for classroom and lab spaces. There is also a need for faculty office space. Needs for recreation, general use, and support spaces are harder to calculate for a single-building campus. All needs are expected to grow with enrollment in the future, as shown in the Benchmark 2 calculations, which assume that no new buildings are built by the time Benchmark 2 is reached.

Figure 8c. Clarksville Campus Fall 2015 Comparison of Existing Space and Calculated Space Needs According to Both Models

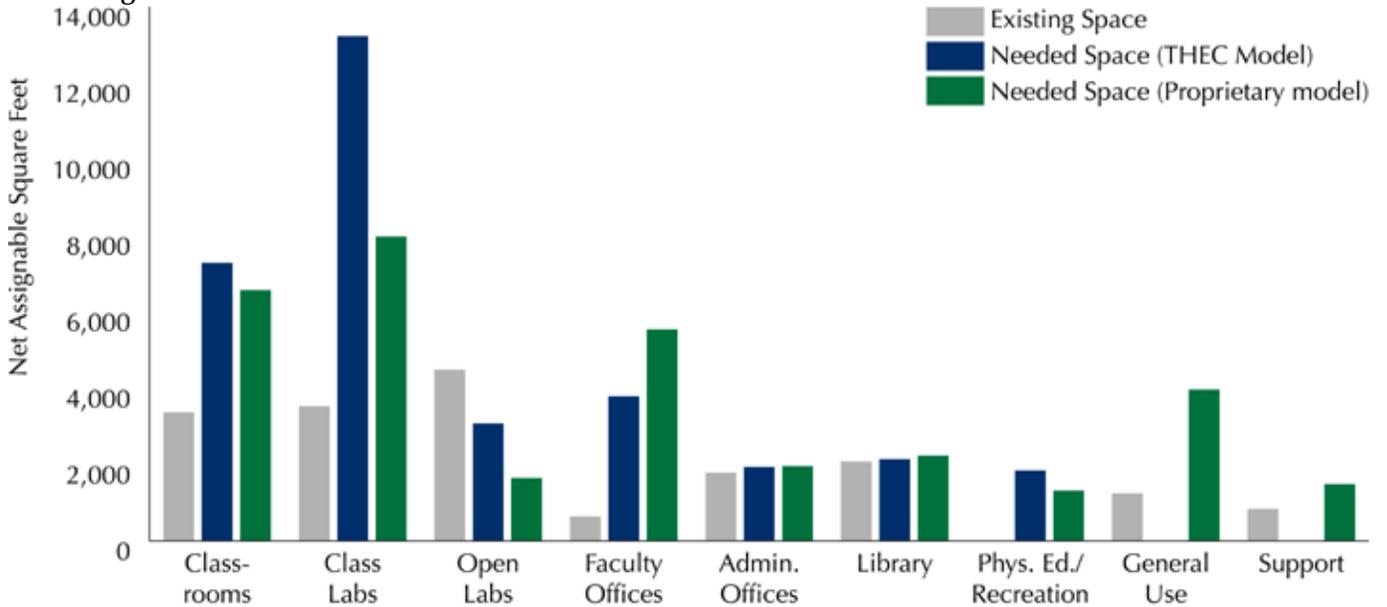


Missing bars indicate space needs not calculated by the THEC model

Table 8e: Clarksville Campus Fall 2015 Proprietary Model Space Needs (net assignable square feet)

	Class-rooms	Class Labs	Open Labs	Faculty Offices	Admin. Offices	Library	Phys. Ed./ Recreation	General Use	Support
Fall 2015 Space Needs	4,776	5,793	1,198	3,438	1,425	1,630	958	3,156	1,265
Existing Space Available	3,370	3,536	640	1,792	2,085	660	0	1,248	840
Net Space Surplus (Shortage)	(1,406)	(2,257)	(558)	(1,646)	660	(970)	(958)	(1,908)	(425)
Need as % of Available Space	42%	64%	87%	92%	-32%	147%	n/a	153%	51%

Figure 8d. Clarksville Campus Benchmark 2 Comparison of Existing Space and Calculated Space Needs According to Both Models



Missing bars indicate space needs not calculated by the THEC model

Table 8f: Clarksville Campus Benchmark 2 Proprietary Model Space Needs (net assignable square feet)

	Class-rooms	Class Labs	Open Labs	Faculty Offices	Admin. Offices	Library	Phys. Ed./ Recreation	General Use	Support
Benchmark 2 Space Needs	6,578	7,978	1,650	5,547	1,963	2,239	1,320	3,970	1,492
Space Available	3,370	3,536	640	1,792	2,085	660	0	1,248	840
Net Space Surplus (Shortage)	(3,208)	(4,442)	(1,010)	(3,755)	122	(1,579)	(1,320)	(2,722)	652
Need as % of Available Space	95%	126%	158%	210%	-6%	239%	n/a	218%	78%

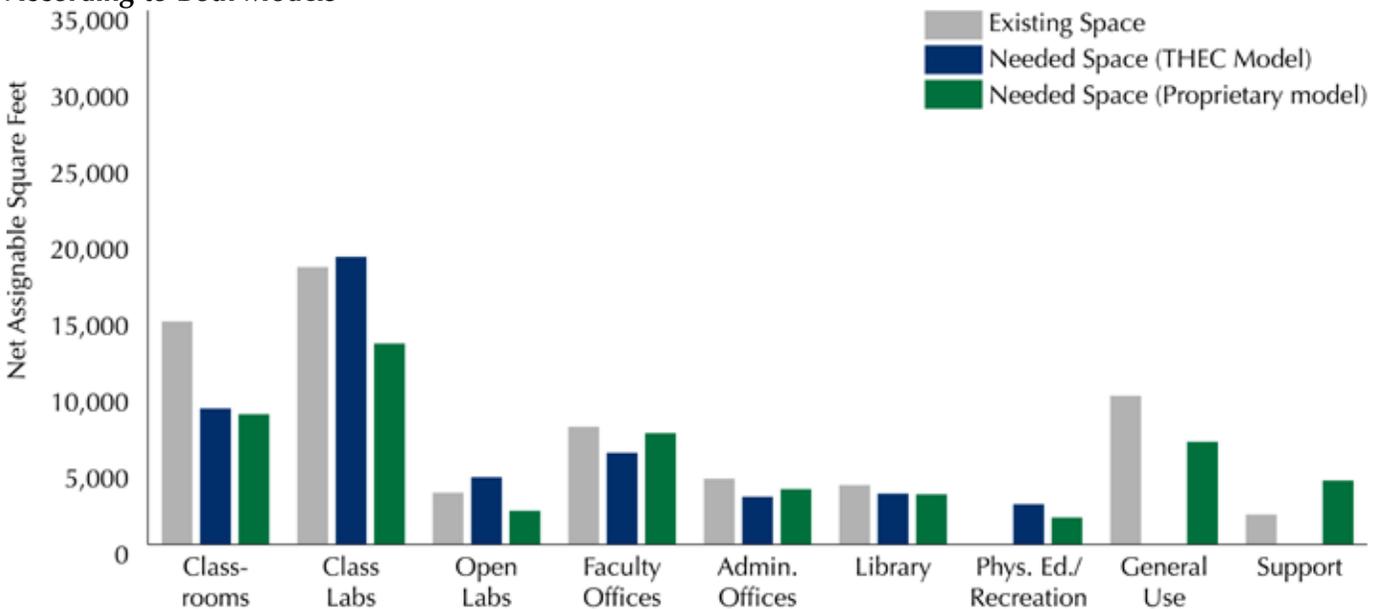
Southeast Campus

Figure 8e below compares existing space on the Southeast with existing space needs as calculated by the THEC model and the master planning consultant's proprietary model. Detailed results of the proprietary model are shown below in Table 8g. Figure 8f and Table 8h on the following page show the same results for Benchmark 2.

Overall, the Southeast campus has a significant surplus of space today that is expected to continue in

the future. The second floor expansion had not yet opened in Fall 2015, and so is not included in the existing space below, but is included in the Benchmark 2 numbers on the following page. The largest surpluses are in teaching space and lounge space. The only Fall 2015 needs are for recreation space (there currently is none) and support space. These needs increase in the future and a need for faculty office space is also projected to arise, assuming that the student faculty ratio remains constant.

Figure 8e. Southeast Campus Fall 2015 Comparison of Existing Space and Calculated Space Needs According to Both Models

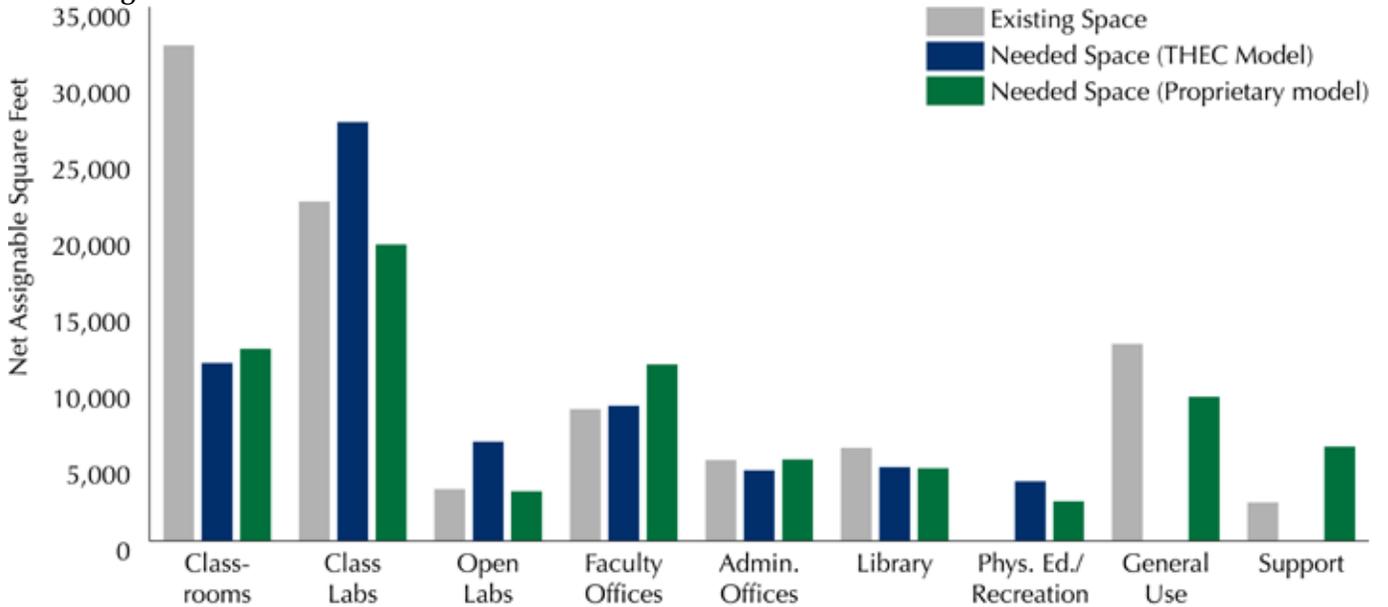


Missing bars indicate space needs not calculated by the THEC model

Table 8g: Southeast Campus Fall 2015 Proprietary Model Space Needs (net assignable square feet)

	Classrooms	Class Labs	Open Labs	Faculty Offices	Admin. Offices	Library	Phys. Ed./Recreation	General Use	Support
Fall 2015 Space Needs	8,535	13,169	2,203	7,292	3,619	3,287	1,762	6,727	4,193
Existing Space Available	14,624	18,176	3,395	7,709	4,310	3,885	0	9,744	1,955
Net Space Surplus (Shortage)	6,089	5,007	1,192	417	691	598	(1,762)	3,017	(2,238)
Need as % of Available Space	-42%	-28%	-35%	-5%	-16%	-15%	n/a	-31%	114%

Figure 8f. Southeast Campus Benchmark 2 Comparison of Existing Space and Calculated Space Needs According to Both Models



Missing bars indicate space needs not calculated by the THEC model

Table 8h: Southeast Campus Benchmark 2 Proprietary Model Space Needs (net assignable square feet)

	Class-rooms	Class Labs	Open Labs	Faculty Offices	Admin. Offices	Library	Phys. Ed./ Recreation	General Use	Support
Benchmark 2 Space Needs	12,595	19,435	3,250	11,574	5,340	4,764	2,600	9,450	6,179
Space Available	32,482	22,248	3,395	8,641	5,301	6,105	0	12,908	2,521
Net Space Surplus (Shortage)	19,887	2,813	145	(2,933)	(39)	1,341	(2,600)	3,458	(3,658)
Need as % of Available Space	-61%	-13%	-4%	34%	1%	-22%	n/a	-27%	145%

THEC Model Detailed Projections

The following pages show the actual THEC model data and results for each campus for Fall 2015 and Benchmark 2.

THEC - Space Allocation Guidelines

Data Input and Calculation Spreadsheet - Community Colleges

Name of Institution:	2013 Nashville State - Main Campus
Date of Data:	Fall 2015

Change shaded cells only:

blue	Data inputs (institutions)
salmon	Guidelines / planning inputs (THEC)

NASF totals rounded up to next whole square foot.

Enrollment Data	
Students	FTE
On-ground	2,465
Online	1,157

Part I - Classrooms		
Class Size	# of sections	Weekly CR Hours
1-8	6	14
9-14	22	58
15-20	64	181
21-26	114	305
27-32	70	184
33-47	2	5
48-74	0	0
75-126	0	0
127+	0	0

Sta util = 60% (fixed) Hrs per week: 30				
Classroom Stations	NASF / Sta	NASF per CR	Number of CRs	Total NASF
12	26	312	1	312
20	25	500	2	1,000
30	21	630	7	4,410
40	18	720	11	7,920
50	18	900	7	6,300
60	18	1,080	1	1,080
100	17	1,700	1	1,700
150	16	2,400	1	2,400
275	14	3,850	0	0
Total CR NASF:				25,122

Part II - Scheduled Labs and Studios			
Lower Div (100+200 level)			
Discipline	# of sections	Weekly Lab Hours	Total Enrollment
A	1	6	16
B	21	53	337
C	70	269	982
D	79	302	1,221
E	51	125	958

Sta util: 80% Hrs per week: 20								
Mean Section Size	Stations per Lab	NASF / Sta	NASF per Lab	Number of Labs	Lab+Studio NASF	Support Allocation	Support NASF	Total NASF
16.0	20	150	3,000	1	3,000	40%	1,200	4,200
16.0	20	100	2,000	3	6,000	35%	2,100	8,100
14.0	18	75	1,350	14	18,900	30%	5,670	24,570
15.0	19	60	1,140	16	18,240	25%	4,560	22,800
19.0	24	40	960	7	6,720	20%	1,344	8,064
Total Lower Div NASF:					52,860		14,874	67,734

Upper Div + Grad (300+ level)			
Discipline	# of sections	Weekly Lab Hours	Total Enrollment
A			
B			
C			
D			
E			

Sta util: 75% Hrs per week: 15								
Mean Section Size	Stations per Lab	NASF / Sta	NASF per Lab	Number of Labs	Lab+Studio NASF	Support Allocation	Support NASF	Total NASF
0.0	0	150	0	0	0	40%	0	0
0.0	0	100	0	0	0	35%	0	0
0.0	0	75	0	0	0	30%	0	0
0.0	0	60	0	0	0	25%	0	0
0.0	0	40	0	0	0	20%	0	0
Total Upper Div NASF:					0		0	0

Grand Total Scheduled Lab and Studio NASF: 67,734

Part III - Open Labs, Studios, Collaboration	
Student enrollment, on-ground (FTE)	2,465
Student enrollment, online (FTE)	1,157

NASF / FTE	Total NASF
5	12,326
0	0
Grand Total Open Labs, Studios, Collaboration NASF:	
	12,326

Part V - Personnel Requiring Office Space

Personnel Category	Total FTE
President, Chancellor	1.0
Provosts, Vice President	2.0
Dean	11.0
Assoc. Dean, Dept. Chair	23.0
Professor, Assoc. Asst	131.0
Other Faculty	63.1
Professional Staff	53.6
Clerical	53.0
Staff, Technician	37.8
GTA (Headcount)	0.0
GRA (Headcount)	0.0
Other Students (Headcount)	0.0
Other: Auditor, etc.	0.0

NASF / FTE	Total NASF
240	240
200	400
180	1,980
140	3,220
120	15,720
90	5,677
120	6,432
120	6,364
90	3,406
60	0
40	0
10	0
100	0

Subtotal NASF:	43,439
Support Allocation: 30%	13,032
Total Office NASF by FTE:	56,471

Part VI - Library and Study

Total vol and vol-equivalents	74,077
Tot vols in compact shelving	0
Cartographic collection	0
Stu enroll, on ground (FTE)	2,465
Stu enroll, online (FTE)	1,157

	Volumes	NASF per Volume	Total NASF
First 150,000 Volumes:	74,077	0.10	7,408
Next 150,000 Volumes:	0	0.09	0
Next 300,000 Volumes:	0	0.08	0
Next 600,000 Volumes:	0	0.07	0
Next 1,200,000 Volumes:	0	0.06	0
Next 2,400,000 Volumes:	0	0.05	0
Above 4,800,000 Volumes:	0	0.04	0
Compact Shelving	0	0.03	0
Cartographic Collection	0	0.02	0
NASF for Volumes:			7,408

Number of Tables, Carrels, and Groups

	% of FTE Enrollment	Number of T, C, & Gs
On ground:	10.0%	247
Online:	5.0%	58
Total T, C, & Gs:		305

NASF for Tables, Carrels, Groups

	% of T, C, & Gs	Number of T, C, & Gs	NASF per Station	Total NASF
% Standard:	45%	137	25	3,432
% Enhanced / Group:	25%	76	35	2,669
% Reserved / Assignable:	20%	61	35	2,135
% Group Study:	10%	31	35	1,068
NASF for Readers:				9,304

Space for Technical Services

Sub-total Books and Reader Space:	16,712
Add'l NASF, % of Sub-total for Technical Services:	12.5%
Total Library and Study NASF:	18,801

Part VII - Physical Education and Recreation

Student enrollment, on ground (FTE)	2,465
NASF Per FTE :	3
Total Physical Ed and Recreation NASF:	7,396

Summary NASF

Part	Modeled	Exist E&G	Difference	Equiv FICM
I - Classrooms	25,122	37,041	11,919	1xx
II - Lab / Studio	67,734	72,817	5,083	210, 215
III - Open Lab	12,326	4,491	-7,835	220, 225
IV - Research	0	0	0	250, 255
V - Office	56,471	64,444	7,973	3xx
VI - Library	18,801	23,324	4,523	4xx
VII - Phys Ed	7,396	3,747	-3,649	520, 523, 525
Totals:	187,850	205,864	18,014	

THEC - Space Allocation Guidelines
 Data Input and Calculation Spreadsheet - Community Colleges

2013
 Name of Institution: Nashville State - Main Campus
 Date of Data: Benchmark 2

Change shaded cells only:
 blue Data inputs (institutions)
 salmon Guidelines / planning inputs (THEC)
 NASF totals rounded up to next whole square foot.

Enrollment Data	
Students	FTE
On-ground	2,348
Online	1,102

Part I - Classrooms		
Class Size	# of sections	Weekly CR Hours
1-8	6	13
9-14	21	55
15-20	60	171
21-26	108	288
27-32	66	174
33-47	2	5
48-74	0	0
75-126	0	0
127+	0	0

Sta util = 60% (fixed)		Hrs per week: 30		
Classroom Stations	NASF / Sta	NASF per CR	Number of CRs	Total NASF
12	26	312	1	312
20	25	500	2	1,000
30	21	630	6	3,780
40	18	720	10	7,200
50	18	900	6	5,400
60	18	1,080	1	1,080
100	17	1,700	1	1,700
150	16	2,400	1	2,400
275	14	3,850	0	0
Total CR NASF:				22,872

Part II - Scheduled Labs and Studios Lower Div (100+200 level)			
Discipline	# of sections	Weekly Lab Hours	Total Enrollment
A	1	6	15
B	20	50	318
C	66	254	927
D	75	285	1,153
E	48	118	905

Sta util: 80%		Hrs per week: 20						
Mean Section Size	Stations per Lab	NASF / Sta	NASF per Lab	Number of Labs	Lab+Studio NASF	Support Allocation	Support NASF	Total NASF
16.0	20	150	3,000	1	3,000	40%	1,200	4,200
16.0	20	100	2,000	3	6,000	35%	2,100	8,100
14.0	18	75	1,350	13	17,550	30%	5,265	22,815
15.0	19	60	1,140	15	17,100	25%	4,275	21,375
19.0	24	40	960	6	5,760	20%	1,152	6,912
Total Lower Div NASF:					49,410		13,992	63,402

Upper Div + Grad (300+ level)			
Discipline	# of sections	Weekly Lab Hours	Total Enrollment
A			
B			
C			
D			
E			

Sta util: 75%		Hrs per week: 15						
Mean Section Size	Stations per Lab	NASF / Sta	NASF per Lab	Number of Labs	Lab+Studio NASF	Support Allocation	Support NASF	Total NASF
0.0	0	150	0	0	0	40%	0	0
0.0	0	100	0	0	0	35%	0	0
0.0	0	75	0	0	0	30%	0	0
0.0	0	60	0	0	0	25%	0	0
0.0	0	40	0	0	0	20%	0	0
Total Upper Div NASF:					0		0	0

Grand Total Scheduled Lab and Studio NASF: 63,402

Part III - Open Labs, Studios, Collaboration	
Student enrollment, on-ground (FTE)	2,348
Student enrollment, online (FTE)	1,102

NASF / FTE	Total NASF
5	11,740
0	0
Grand Total Open Labs, Studios, Collaboration NASF: 11,740	

Part V - Personnel Requiring Office Space	
Personnel Category	Total FTE
President, Chancellor	1.0
Provosts, Vice President	1.9
Dean	10.4
Assoc. Dean, Dept. Chair	21.7
Professor, Assoc. Asst	123.7
Other Faculty	59.6
Professional Staff	50.6
Clerical	50.1
Staff, Technician	35.7
GTA (Headcount)	0.0
GRA (Headcount)	0.0
Other Students (Headcount)	0.0
Other: Auditor, etc.	0.0

NASF / FTE	Total NASF
240	240
200	378
180	1,871
140	3,042
120	14,847
90	5,361
120	6,075
120	6,011
90	3,217
60	0
40	0
10	0
100	0
Subtotal NASF:	41,042
Support Allocation: 30%	12,313
Total Office NASF by FTE:	53,355

Part VI - Library and Study	
Total vol and vol-equivalents	74,077
Tot vols in compact shelving	0
Cartographic collection	0
Stu enroll, on ground (FTE)	2,348
Stu enroll, online (FTE)	1,102

	Volumes	NASF per Volume	Total NASF
First 150,000 Volumes:	74,077	0.10	7,408
Next 150,000 Volumes:	0	0.09	0
Next 300,000 Volumes:	0	0.08	0
Next 600,000 Volumes:	0	0.07	0
Next 1,200,000 Volumes:	0	0.06	0
Next 2,400,000 Volumes:	0	0.05	0
Above 4,800,000 Volumes:	0	0.04	0
Compact Shelving	0	0.03	0
Cartographic Collection	0	0.02	0
NASF for Volumes:			7,408

Number of Tables, Carrels, and Groups

	% of FTE Enrollment	Number of T, C, & Gs
On ground:	10.0%	235
Online:	5.0%	56
Total T, C, & Gs:		291

NASF for Tables, Carrels, Groups

	% of T, C, & Gs	Number of T, C, & Gs	NASF per Station	Total NASF
% Standard:	45%	131	25	3,274
% Enhanced / Group:	25%	73	35	2,547
% Reserved / Assignable:	20%	58	35	2,037
% Group Study:	10%	29	35	1,019
NASF for Readers:				8,877

Space for Technical Services

Sub-total Books and Reader Space:	16,285
Add'l NASF, % of Sub-total for Technical Services: 12.5%	2,036
Total Library and Study NASF:	18,321

Part VII - Physical Education and Recreation	
Student enrollment, on ground (FTE)	2,348
NASF Per FTE:	3
Total Physical Ed and Recreation NASF:	7,044

Summary NASF				
Part	Modeled	Exist E&G	Difference	Equip FICM
I - Classrooms	22,872	37,041	14,169	1xx
II - Lab / Studio	63,402	72,817	9,415	210, 215
III - Open Lab	11,740	4,491	-7,249	220, 225
IV - Research	0	0	0	250, 255
V - Office	53,355	64,444	11,089	3xx
VI - Library	18,321	23,324	5,003	4xx
VII - Phys Ed	7,044	3,747	-3,297	520, 523, 525
Totals:	176,734	205,864	29,130	

THEC - Space Allocation Guidelines

Data Input and Calculation Spreadsheet - Community Colleges

Name of Institution: **2013**
 Nashville State - Clarksville Campus
 Date of Data: **Fall 2015**

Change shaded cells only:

blue Data inputs (institutions)
 salmon Guidelines / planning inputs (THEC)

NASF totals rounded up to next whole square foot.

Enrollment Data	
Students	FTE
On-ground	447
Online	0

Part I - Classrooms		
Class Size	# of sections	Weekly CR Hours
1-8	2	5
9-14	3	8
15-20	12	32
21-26	12	32
27-32	18	48
33-47	6	16
48-74	0	0
75-126	0	0
127+	0	0

Sta util = 60% (fixed)		Hrs per week: 30		
Classroom Stations	NASF / Sta	NASF per CR	Number of CRs	Total NASF
12	26	312	1	312
20	25	500	1	500
30	21	630	2	1,260
40	18	720	2	1,440
50	18	900	2	1,800
60	18	1,080	1	1,080
100	17	1,700	0	0
150	16	2,400	0	0
275	14	3,850	0	0
Total CR NASF:				6,392

Part II - Scheduled Labs and Studios Lower Div (100+200 level)			
Discipline	# of sections	Weekly Lab Hours	Total Enrollment
A	0	0	0
B	0	0	0
C	3	17	66
D	4	19	76
E	12	29	272

Sta util: 80%		Hrs per week: 20						
Mean Section Size	Stations per Lab	NASF / Sta	NASF per Lab	Number of Labs	Lab+Studio NASF	Support Allocation	Support NASF	Total NASF
0.0	0	150	0	0	0	40%	0	0
0.0	0	100	0	0	0	35%	0	0
22.0	28	75	2,100	1	2,100	30%	630	2,730
19.0	24	60	1,440	1	1,440	25%	360	1,800
23.0	29	40	1,160	2	2,320	20%	464	2,784
Total Lower Div NASF:					5,860		1,454	7,314

Upper Div + Grad (300+ level)			
Discipline	# of sections	Weekly Lab Hours	Total Enrollment
A			
B			
C			
D			
E			

Sta util: 75%		Hrs per week: 15						
Mean Section Size	Stations per Lab	NASF / Sta	NASF per Lab	Number of Labs	Lab+Studio NASF	Support Allocation	Support NASF	Total NASF
0.0	0	150	0	0	0	40%	0	0
0.0	0	100	0	0	0	35%	0	0
0.0	0	75	0	0	0	30%	0	0
0.0	0	60	0	0	0	25%	0	0
0.0	0	40	0	0	0	20%	0	0
Total Upper Div NASF:					0		0	0

Grand Total Scheduled Lab and Studio NASF: 7,314

Part III - Open Labs, Studios, Collaboration	
Student enrollment, on-ground (FTE)	447
Student enrollment, online (FTE)	0

NASF / FTE	Total NASF
5	2,236
0	0
Grand Total Open Labs, Studios, Collaboration NASF: 2,236	

Part V - Personnel Requiring Office Space	
Personnel Category	Total FTE
President, Chancellor	0.0
Provosts, Vice President	1.0
Dean	1.0
Assoc. Dean, Dept. Chair	0.0
Professor, Assoc. Asst	7.0
Other Faculty	14.2
Professional Staff	0.0
Clerical	3.6
Staff, Technician	3.0
GTA (Headcount)	0.0
GRA (Headcount)	0.0
Other Students (Headcount)	0.0
Other: Auditor, etc.	0.0

NASF / FTE	Total NASF
240	0
200	200
180	180
140	0
120	840
90	1,279
120	0
120	432
90	270
60	0
40	0
10	0
100	0
Subtotal NASF:	3,201
Support Allocation: 30%	961
Total Office NASF by FTE:	4,162

Part VI - Library and Study	
Total vol and vol-equivalents	67
Tot vols in compact shelving	0
Cartographic collection	0
Stu enroll, on ground (FTE)	447
Stu enroll, online (FTE)	0

	Volumes	NASF per Volume	Total NASF
First 150,000 Volumes:	67	0.10	7
Next 150,000 Volumes:	0	0.09	0
Next 300,000 Volumes:	0	0.08	0
Next 600,000 Volumes:	0	0.07	0
Next 1,200,000 Volumes:	0	0.06	0
Next 2,400,000 Volumes:	0	0.05	0
Above 4,800,000 Volumes:	0	0.04	0
Compact Shelving	0	0.03	0
Cartographic Collection	0	0.02	0
NASF for Volumes:			7

Number of Tables, Carrels, and Groups

	% of FTE Enrollment	Number of T, C, & Gs
On ground:	10.0%	45
Online:	5.0%	0
Total T, C, & Gs:		45

NASF for Tables, Carrels, Groups

	% of T, C, & Gs	Number of T, C, & Gs	NASF per Station	Total NASF
% Standard:	45%	20	25	507
% Enhanced / Group:	25%	11	35	394
% Reserved / Assignable:	20%	9	35	315
% Group Study:	10%	5	35	158
NASF for Readers:				1,374

Space for Technical Services

Sub-total Books and Reader Space:	1,381	
Add'l NASF, % of Sub-total for Technical Services:	12.5%	173
Total Library and Study NASF:	1,554	

Part VII - Physical Education and Recreation	
Student enrollment, on ground (FTE)	447
NASF Per FTE :	3
Total Physical Ed and Recreation NASF:	1,342

Summary NASF				
Part	Modeled	Exist E&G	Difference	Equiv FICM
I - Classrooms	6,392	3,370	-3,022	1xx
II - Lab / Studio	7,314	3,536	-3,778	210, 215
III - Open Lab	2,236	640	-1,596	220, 225
IV - Research	0	0	0	250, 255
V - Office	4,162	3,877	-285	3xx
VI - Library	1,554	660	-894	4xx
VII - Phys Ed	1,342	0	-1,342	520, 523, 525
Totals:	23,000	12,083	-10,917	

THEC - Space Allocation Guidelines
Data Input and Calculation Spreadsheet - Community Colleges

2013
 Name of Institution: **Nashville State - Clarksville Campus**
 Date of Data: **Benchmark 2**

Change shaded cells only:
 blue Data inputs (institutions)
 salmon Guidelines / planning inputs (THEC)
 NASF totals rounded up to next whole square foot.

Enrollment Data	
Students	FTE
On-ground	660
Online	0

Part I - Classrooms		
Class Size	# of sections	Weekly CR Hours
1-8	3	8
9-14	4	12
15-20	18	47
21-26	18	47
27-32	27	71
33-47	9	24
48-74	0	0
75-126	0	0
127+	0	0

Sta util = 60% (fixed)		Hrs per week: 30		
Classroom Stations	NASF / Sta	NASF per CR	Number of CRs	Total NASF
12	26	312	1	312
20	25	500	1	500
30	21	630	2	1,260
40	18	720	2	1,440
50	18	900	3	2,700
60	18	1,080	1	1,080
100	17	1,700	0	0
150	16	2,400	0	0
275	14	3,850	0	0
Total CR NASF:				7,292

Part II - Scheduled Labs and Studios Lower Div (100+200 level)			
Discipline	# of sections	Weekly Lab Hours	Total Enrollment
A	0	0	0
B	0	0	0
C	4	25	97
D	6	29	112
E	18	43	401

Sta util: 80%		Hrs per week: 20						
Mean Section Size	Stations per Lab	NASF / Sta Lab	NASF per Lab	Number of Labs	Lab+Studio NASF	Support Allocation	Support NASF	Total NASF
0.0	0	150	0	0	0	40%	0	0
0.0	0	100	0	0	0	35%	0	0
22.0	28	75	2,100	2	4,200	30%	1,260	5,460
19.0	24	60	1,440	2	2,880	25%	720	3,600
23.0	29	40	1,160	3	3,480	20%	696	4,176
Total Lower Div NASF:					10,560		2,676	13,236

Upper Div + Grad (300+ level)			
Discipline	# of sections	Weekly Lab Hours	Total Enrollment
A			
B			
C			
D			
E			

Sta util: 75%		Hrs per week: 15						
Mean Section Size	Stations per Lab	NASF / Sta Lab	NASF per Lab	Number of Labs	Lab+Studio NASF	Support Allocation	Support NASF	Total NASF
0.0	0	150	0	0	0	40%	0	0
0.0	0	100	0	0	0	35%	0	0
0.0	0	75	0	0	0	30%	0	0
0.0	0	60	0	0	0	25%	0	0
0.0	0	40	0	0	0	20%	0	0
Total Upper Div NASF:					0		0	0

Grand Total Scheduled Lab and Studio NASF: **13,236**

Part III - Open Labs, Studios, Collaboration	
Student enrollment, on-ground (FTE)	660
Student enrollment, online (FTE)	0

NASF / FTE	Total NASF
5	3,300
0	0
Grand Total Open Labs, Studios, Collaboration NASF: 3,300	

Part V - Personnel Requiring Office Space

Personnel Category	Total FTE
President, Chancellor	0.0
Provosts, Vice President	1.5
Dean	1.5
Assoc. Dean, Dept. Chair	0.0
Professor, Assoc. Asst	10.3
Other Faculty	21.0
Professional Staff	0.0
Clerical	5.3
Staff, Technician	4.4
GTA (Headcount)	0.0
GRA (Headcount)	0.0
Other Students (Headcount)	0.0
Other: Auditor, etc.	0.0

NASF / FTE	Total NASF
240	0
200	296
180	266
140	0
120	1,240
90	1,887
120	0
120	638
90	399
60	0
40	0
10	0
100	0
Subtotal NASF:	4,726
Support Allocation: 30%	1,418
Total Office NASF by FTE:	6,144

Support Allocation: 30% 1,418
Total Office NASF by FTE: 6,144

Part VI - Library and Study

Total vol and vol-equivalents	150
Tot vols in compact shelving	0
Cartographic collection	0
Stu enroll, on ground (FTE)	660
Stu enroll, online (FTE)	0

	Volumes	NASF per Volume	Total NASF
First 150,000 Volumes:	150	0.10	15
Next 150,000 Volumes:	0	0.09	0
Next 300,000 Volumes:	0	0.08	0
Next 600,000 Volumes:	0	0.07	0
Next 1,200,000 Volumes:	0	0.06	0
Next 2,400,000 Volumes:	0	0.05	0
Above 4,800,000 Volumes:	0	0.04	0
Compact Shelving	0	0.03	0
Cartographic Collection	0	0.02	0
NASF for Volumes:			15

Number of Tables, Carrels, and Groups

	% of FTE Enrollment	Number of T, C, & Gs
On ground:	10.0%	66
Online:	5.0%	0
Total T, C, & Gs:		66

NASF for Tables, Carrels, Groups

	% of T, C, & Gs	Number of T, C, & Gs	NASF per Station	Total NASF
% Standard:	45%	30	25	743
% Enhanced / Group:	25%	17	35	578
% Reserved / Assignable:	20%	13	35	462
% Group Study:	10%	7	35	231
NASF for Readers:				2,014

Space for Technical Services

Sub-total Books and Reader Space:	2,029
Add'l NASF, % of Sub-total for Technical Services: 12.5%	254
Total Library and Study NASF:	2,283

Part VII - Physical Education and Recreation

Student enrollment, on ground (FTE)	660
NASF Per FTE :	3
Total Physical Ed and Recreation NASF:	1,980

Summary NASF

Part	Modeled	Exist E&G	Difference	Equiv FICM
I - Classrooms	7,292	3,370	-3,922	1xx
II - Lab / Studio	13,236	3,536	-9,700	210, 215
III - Open Lab	3,300	640	-2,660	220, 225
IV - Research	0	0	0	250, 255
V - Office	6,144	3,877	-2,267	3xx
VI - Library	2,283	660	-1,623	4xx
VII - Phys Ed	1,980	0	-1,980	520, 523, 525
Totals:	34,235	12,083	-22,152	

THEC - Space Allocation Guidelines
 Data Input and Calculation Spreadsheet - Community Colleges

Name of Institution: **2013**
 Nashville State - Southeast Campus
 Date of Data: **Fall 2015**

Change shaded cells only:

- blue Data inputs (institutions)
- salmon Guidelines / planning inputs (THEC)

NASF totals rounded up to next whole square foot.

Enrollment Data	
Students	FTE
On-ground	882
Online	0

Part I - Classrooms		
Class Size	# of sections	Weekly CR Hours
1-8	3	8
9-14	11	24
15-20	25	95
21-26	37	98
27-32	23	62
33-47	0	0
48-74	0	0
75-126	0	0
127+	0	0

Sta util = 60% (fixed)		Hrs per week: 30			
Classroom Stations	NASF / Sta	NASF per CR	Number of CRs	Total NASF	
12	26	312	1	312	
20	25	500	1	500	
30	21	630	4	2,520	
40	18	720	4	2,880	
50	18	900	3	2,700	
60	18	1,080	0	0	
100	17	1,700	0	0	
150	16	2,400	0	0	
275	14	3,850	0	0	
Total CR NASF:				8,912	

Part II - Scheduled Labs and Studios Lower Div (100+200 level)			
Discipline	# of sections	Weekly Lab Hours	Total Enrollment
A	0	0	0
B	2	4	13
C	16	82	265
D	4	16	73
E	25	68	517

Sta util: 80%		Hrs per week: 20							
Mean Section Size	Stations per Lab	NASF / Sta	NASF per Lab	Number of Labs	Lab+Studio NASF	Support Allocation	Support NASF	Total NASF	
0.0	0	150	0	0	0	40%	0	0	
7.0	9	100	900	1	900	35%	315	1,215	
17.0	22	75	1,650	5	8,250	30%	2,475	10,725	
18.0	23	60	1,380	1	1,380	25%	345	1,725	
21.0	27	40	1,080	4	4,320	20%	864	5,184	
Total Lower Div NASF:					14,850		3,999	18,849	

Upper Div + Grad (300+ level)			
Discipline	# of sections	Weekly Lab Hours	Total Enrollment
A			
B			
C			
D			
E			

Sta util: 75%		Hrs per week: 15							
Mean Section Size	Stations per Lab	NASF / Sta	NASF per Lab	Number of Labs	Lab+Studio NASF	Support Allocation	Support NASF	Total NASF	
0.0	0	150	0	0	0	40%	0	0	
0.0	0	100	0	0	0	35%	0	0	
0.0	0	75	0	0	0	30%	0	0	
0.0	0	60	0	0	0	25%	0	0	
0.0	0	40	0	0	0	20%	0	0	
Total Upper Div NASF:					0		0	0	

Grand Total Scheduled Lab and Studio NASF: **18,849**

Part III - Open Labs, Studios, Collaboration	
Student enrollment, on-ground (FTE)	882
Student enrollment, online (FTE)	0

NASF / FTE	Total NASF
5	4,408
0	0
Grand Total Open Labs, Studios, Collaboration NASF: 4,408	

Part V - Personnel Requiring Office Space	
Personnel Category	Total FTE
President, Chancellor	0.0
Provosts, Vice President	1.0
Dean	0.0
Assoc. Dean, Dept. Chair	2.0
Professor, Assoc. Asst	20.0
Other Faculty	24.7
Professional Staff	4.0
Clerical	5.3
Staff, Technician	9.0
GTA (Headcount)	0.0
GRA (Headcount)	0.0
Other Students (Headcount)	0.0
Other: Auditor, etc.	0.0

NASF / FTE	Total NASF
240	0
200	200
180	0
140	280
120	2,400
90	2,221
120	480
120	639
90	809
60	0
40	0
10	0
100	0
Subtotal NASF:	7,029
Support Allocation: 30%	2,109
Total Office NASF by FTE:	9,138

Subtotal NASF: 7,029
 Support Allocation: 30% 2,109
Total Office NASF by FTE: 9,138

Part VI - Library and Study	
Total vol and vol-equivalents	2,497
Tot vols in compact shelving	0
Cartographic collection	0
Stu enroll, on ground (FTE)	882
Stu enroll, online (FTE)	0

	Volumes	NASF per Volume	Total NASF
First 150,000 Volumes:	2,497	0.10	250
Next 150,000 Volumes:	0	0.09	0
Next 300,000 Volumes:	0	0.08	0
Next 600,000 Volumes:	0	0.07	0
Next 1,200,000 Volumes:	0	0.06	0
Next 2,400,000 Volumes:	0	0.05	0
Above 4,800,000 Volumes:	0	0.04	0
Compact Shelving	0	0.03	0
Cartographic Collection	0	0.02	0
NASF for Volumes:			250

Number of Tables, Carrels, and Groups

	% of FTE Enrollment	Number of T, C, & Gs
On ground:	10.0%	89
Online:	5.0%	0
Total T, C, & Gs:		89

NASF for Tables, Carrels, Groups

	% of T, C, & Gs	Number of T, C, & Gs	NASF per Station	Total NASF
% Standard:	45%	40	25	1,002
% Enhanced / Group:	25%	22	35	779
% Reserved / Assignable:	20%	18	35	623
% Group Study:	10%	9	35	312
NASF for Readers:				2,716

Space for Technical Services

Sub-total Books and Reader Space:	2,966
Add'l NASF, % of Sub-total for Technical Services:	12.5% 371
Total Library and Study NASF:	3,337

Part VII - Physical Education and Recreation	
Student enrollment, on ground (FTE)	882
NASF Per FTE :	3
Total Physical Ed and Recreation NASF:	2,645

Summary NASF				
Part	Modeled	Exist E&G	Difference	Equiv FICM
I - Classrooms	8,912	14,624	5,712	1xx
II - Lab / Studio	18,849	18,176	-673	210, 215
III - Open Lab	4,408	3,395	-1,013	220, 225
IV - Research	0	0	0	250, 255
V - Office	9,138	12,019	2,881	3xx
VI - Library	3,337	3,885	548	4xx
VII - Phys Ed	2,645	0	-2,645	520, 523, 525
Totals:	47,289	52,099	4,810	

THEC - Space Allocation Guidelines

Data Input and Calculation Spreadsheet - Community Colleges

Name of Institution: **2013**
 Nashville State - Southeast Campus
 Date of Data: **Benchmark 2**

Change shaded cells only:

blue Data inputs (institutions)
 salmon Guidelines / planning inputs (THEC)

NASF totals rounded up to next whole square foot.

Enrollment Data	
Students	FTE
On-ground	1,301
Online	0

Part I - Classrooms		
Class Size	# of sections	Weekly CR Hours
1-8	4	12
9-14	16	35
15-20	37	140
21-26	55	144
27-32	34	92
33-47	0	0
48-74	0	0
75-126	0	0
127+	0	0

Sta util = 60% (fixed)		Hrs per week: 30			
Classroom Stations	NASF / Sta	NASF per CR	Number of CRs	Total NASF	
12	26	312	1	312	
20	25	500	2	1,000	
30	21	630	5	3,150	
40	18	720	5	3,600	
50	18	900	4	3,600	
60	18	1,080	0	0	
100	17	1,700	0	0	
150	16	2,400	0	0	
275	14	3,850	0	0	
Total CR NASF:				11,662	

Part II - Scheduled Labs and Studios Lower Div (100+200 level)			
Discipline	# of sections	Weekly Lab Hours	Total Enrollment
A	0	0	0
B	3	5	19
C	24	122	391
D	6	23	108
E	37	100	763

Sta util: 80%		Hrs per week: 20							
Mean Section Size	Stations per Lab	NASF / Sta	NASF per Lab	Number of Labs	Lab+Studio NASF	Support Allocation	Support NASF	Total NASF	
0.0	0	150	0	0	0	40%	0	0	
7.0	9	100	900	1	900	35%	315	1,215	
17.0	22	75	1,650	7	11,550	30%	3,465	15,015	
18.0	23	60	1,380	2	2,760	25%	690	3,450	
21.0	27	40	1,080	6	6,480	20%	1,296	7,776	
Total Lower Div NASF:					21,690		5,766	27,456	

Upper Div + Grad (300+ level)			
Discipline	# of sections	Weekly Lab Hours	Total Enrollment
A			
B			
C			
D			
E			

Sta util: 75%		Hrs per week: 15							
Mean Section Size	Stations per Lab	NASF / Sta	NASF per Lab	Number of Labs	Lab+Studio NASF	Support Allocation	Support NASF	Total NASF	
0.0	0	150	0	0	0	40%	0	0	
0.0	0	100	0	0	0	35%	0	0	
0.0	0	75	0	0	0	30%	0	0	
0.0	0	60	0	0	0	25%	0	0	
0.0	0	40	0	0	0	20%	0	0	
Total Upper Div NASF:					0		0	0	

Grand Total Scheduled Lab and Studio NASF: 27,456

Part III - Open Labs, Studios, Collaboration	
Student enrollment, on-ground (FTE)	1,301
Student enrollment, online (FTE)	0

NASF / FTE	Total NASF
5	6,505
0	0
Grand Total Open Labs, Studios, Collaboration NASF: 6,505	

Part V - Personnel Requiring Office Space

Personnel Category	Total FTE
President, Chancellor	0.0
Provosts, Vice President	1.5
Dean	0.0
Assoc. Dean, Dept. Chair	3.0
Professor, Assoc. Asst	29.5
Other Faculty	36.4
Professional Staff	5.9
Clerical	7.9
Staff, Technician	13.3
GTA (Headcount)	0.0
GRA (Headcount)	0.0
Other Students (Headcount)	0.0
Other: Auditor, etc.	0.0

NASF / FTE	Total NASF
240	0
200	296
180	0
140	414
120	3,542
90	3,277
120	709
120	943
90	1,193
60	0
40	0
10	0
100	0
Subtotal NASF:	10,374
Support Allocation: 30%	3,113
Total Office NASF by FTE:	13,487

Subtotal NASF: 10,374
 Support Allocation: 30% 3,113
Total Office NASF by FTE: 13,487

Part VI - Library and Study

Total vol and vol-equivalents	3,000
Tot vols in compact shelving	0
Cartographic collection	0
Stu enroll, on ground (FTE)	1,301
Stu enroll, online (FTE)	0

	Volumes	NASF per Volume	Total NASF
First 150,000 Volumes:	3,000	0.10	300
Next 150,000 Volumes:	0	0.09	0
Next 300,000 Volumes:	0	0.08	0
Next 600,000 Volumes:	0	0.07	0
Next 1,200,000 Volumes:	0	0.06	0
Next 2,400,000 Volumes:	0	0.05	0
Above 4,800,000 Volumes:	0	0.04	0
Compact Shelving	0	0.03	0
Cartographic Collection	0	0.02	0
NASF for Volumes:			300

Number of Tables, Carrels, and Groups

	% of FTE Enrollment	Number of T, C, & Gs
On ground:	10.0%	131
Online:	5.0%	0
Total T, C, & Gs:		131

NASF for Tables, Carrels, Groups

	% of T, C, & Gs	Number of T, C, & Gs	NASF per Station	Total NASF
% Standard:	45%	59	25	1,474
% Enhanced / Group:	25%	33	35	1,147
% Reserved / Assignable:	20%	26	35	917
% Group Study:	10%	13	35	459
NASF for Readers:				3,997

Space for Technical Services

Sub-total Books and Reader Space:	4,297
Add'l NASF, % of Sub-total for Technical Services:	12.5% 538
Total Library and Study NASF:	4,835

Part VII - Physical Education and Recreation

Student enrollment, on ground (FTE)	1,301
NASF Per FTE :	3
Total Physical Ed and Recreation NASF:	3,903

Summary NASF

Part	Modeled	Exist E&G	Difference	Equiv FICM
I - Classrooms	11,662	32,482	20,820	1xx
II - Lab / Studio	27,456	22,248	-5,208	210, 215
III - Open Lab	6,505	3,395	-3,110	220, 225
IV - Research	0	0	0	250, 255
V - Office	13,487	13,942	455	3xx
VI - Library	4,835	6,105	1,270	4xx
VII - Phys Ed	3,903	0	-3,903	520, 523, 525
Totals:	67,848	78,172	10,324	