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Section 1 EXECUTIVE SUMMARY

In 1963 the Tennessee General Assembly responded to recommendations made in the Pierce-Albright Report by establishing a group of state community colleges. Jackson State Community College was selected as the first such institution in West Tennessee.

Dr. F.E. Wright was appointed the first president of Jackson State in March, 1967. Dr. Walter L. Nelms assumed the presidency in 1976 and led the College toward continued progress until his retirement in 1997. In July of 1997, Dr. Charlie D. Roberts, Jr., became Jackson State’s third president and continued the journey to bring greater opportunities to the people of West Tennessee until his retirement in 2004. The current president, Dr. Bruce Blanding, began his tenure in 2004 and is leading Jackson State to a greater fulfillment of its vision to serve as the community’s college. Jackson State has established state-of-the-art healthcare programs and has an exceptionally strong developmental studies program. The College combines a tradition of excellence in student performance and success with a caring and individualized approach to working with students.

Jackson State Community College (JSCC) is a comprehensive community college in West Tennessee offering associate degrees in arts, sciences, teaching, and applied sciences. The College also offers technical certificates and non-credit continuing education programs. Classes are offered on the main campus in Jackson and at centers in Lexington, Savannah, and Humboldt. There is a robust offering of on-line, hybrid, and distance–learning classes available as well as dual enrollment classes offered at high schools throughout the 14 county service area.

In January 2010, the state of Tennessee passed the Complete College Tennessee Act (CCTA), a comprehensive reform agenda that seeks to transform public higher education through changes in academic, fiscal, and administrative policies at the state and institutional level. At the center of these reforms is the need for more Tennesseans to be better educated and trained, while also acknowledging the state’s diminished fiscal capacity to support higher education.

The CCTA requires higher education to establish a direct link between the state’s economic development and its educational system. The overarching goal is to have Tennessee meet the projected national average in educational attainment by 2025. With this goal in mind, the Tennessee Board of Regents campus plan policy recommends a new plan every five years. During the past year, Jackson State Community College has engaged in a comprehensive campus planning process. The objective of this initiative has been to develop a plan for the future that addresses facility needs, both building and site, for the next fifteen years. The resulting Campus Plan, summarized in this report, describes physical resources that exist, the additional facilities or improvements that will be required, and how the College foresees addressing these projected needs.

The Campus Plan represents much more than a layout for determining sites for future buildings. It also reflects the College’s vision to focus on academic excellence related to the needs of the state and region. With a steadily increasing student population and a range of academic programs, JSCC hopes to continue a leadership role in helping the region fulfill its promise. These goals are described in Section Two under “Mission, Vision, Goals, and Objectives”.

CAMPUS PLAN OVERVIEW

The Campus Plan reflects input from the many JSCC constituents who have participated in the planning process. It provides a framework for decision-making that embodies a point of view regarding all aspects of the campus. These include site context, land use, land ownership, building use, pedestrian and vehicular circulation, parking, hydrology/topography, landscape and open space, data analysis, campus design, development constraints and opportunities, and sequence.

Please refer to Drawing 1.1 on page 3. The Campus Plan described in this report is summarized here by brief descriptions of key projects. This drawing reflects the Campus Plan concept. The projects are clustered relationally with some to be completed in the near term, some in the mid-term, and others in the long term. Some projects will be initiated as funds permit.

Drawing 1.1 Site Number Key

A1 – A4. Four proposed academic building located in the following areas:
   • A1 (includes Theater) and A2 two in the northwest campus
   • A3 and A4 in the campus core

B. Proposed Library northwest expansion.

C. Proposed Nelms Classroom Building expansion.

D. Proposed Math & Science Building expansion.

E. New Nursing Building under construction.

F. Proposed Allied Health Building.
G. Proposed redesigned gateways on the west and east ends of campus.

H. Proposed baseball field and tennis courts – the existing baseball field is located between the McWherter Center and the Gymnasium. Long term needs include tennis courts and a shared concession/restroom building to serve all athletic facilities. Long term athletic and campus development needs would be better served if the baseball field were moved south of its present location. This would consolidate all athletic fields and courts south of the western access drive. This will provide for better access to a shared press box/concession/restroom building and mitigate pedestrian/vehicular conflict created by spectators and players crossing the access drive to use the shared building. This approach will also allow for the redevelopment of the new access drive to North Parkway and realignment of the parking lot that serves the west side of the campus core.

I. Proposed press box, concession stand, and rest rooms location.

J. Proposed parking with landscaping in three locations—the existing baseball field area, the area east of the current baseball field and north of the Gymnasium/Music and Library buildings, and the third on the east end of campus adjacent to the southeast of the existing lot. Several of the lots are very dominant on campus and take away from the overall campus feel. As future development on campus occurs, removing some parking from the core of the campus and shifting it to the perimeter should be strongly considered. Future parking lots should be developed with more green space to allow for tree plantings. Tree planning softens the visual impact of the large paved areas and will also reduce the heat island effect produced by large paved areas. The introduction of rain gardens within parking areas will provide a water quality enhancement and also reduce runoff produced by parking lots. Sidewalks should be provided along the perimeter of parking lots in areas where students will be walking to access other pedestrian systems on campus.

K. Proposed multi-purpose playfield on the current baseball field.

L. Proposed campus main entrance relocation accessed from North Parkway on the north side of campus.

M. Proposed vehicular connection with roundabouts. This redesign will move vehicular circulation away from the campus core to the campus periphery. The proposed main entrance to campus is shown on the north side of campus, accessed from North Parkway. Realignment of access points to North Parkway is recommended with a new access point moved to the west and the eastern most access point that currently exists, should be eliminated. As part of the development of this new access point, acceleration and deceleration lanes should be added to ease the transition of cars between North Parkway and campus. The western most access drive to campus would also benefit with a turning lane added to F. E. Wright Drive. This will mitigate sight distance issues and provide stacking space for vehicles during peak travel periods.

In addition, the loop road around campus should be realigned as indicated in Drawing 1.1 on page 5. The current drive, that connects the north and south loop roads between the Gymnasium/Music Building and the Library, should be removed. The connecting drive that passes between the Student Union and the new Nursing Building and proposed Allied Health Building, Nelms Classroom, and Math and Science buildings should become service/delivery only. A new loop road should be constructed to the south of the Gymnasium to move traffic outside the academic core. The proposed road realignments will allow for parking lots to be reconfigured, and in some cases expanded. This should provide a more equitable balance of parking throughout campus. Roundabouts are proposed in two locations along the south loop road for traffic calming and to handle the large vehicular traffic volumes at peak times.

N. A proposed quadrangle is surrounded by the new Nursing Building and the proposed academic, Allied Health, Math & Science, and Student Union buildings.

Concurrent with this campus master plan is a detailed study of the central quadrangle northwest of the proposed quad. The preliminary design shown in Appendix 2 proposes new diagonal sidewalk connections along major desire lines between building entrances along the southwest side of the quad. New seating areas are proposed along the new diagonal paths. A new amphitheater is proposed centered on the existing gazebo shelter. A new clock tower is proposed at the intersection of the major north/south and east/west pedestrian pathways. The preliminary design also calls for improvements to the central plaza and the addition of outdoor café-style seating near the entrance to the Student Union. Enhancements to this central open space represent an excellent opportunity. The central quad is the most important outdoor space on campus, investments in its function and aesthetics are appropriate and needed.

O. Proposed Maintenance Building.

P. Potential land acquisition parcels.
Site Letter Key

A1-A4. PROPOSED ACADEMIC BUILDINGS
B. PROPOSED LIBRARY EXPANSION
C. PROPOSED NELMS EXPANSION
D. PROPOSED MATH & SCIENCE EXPANSION
E. NEW NURSING BUILDING
F. PROPOSED ALLIED HEALTH BLDG.
G. PROPOSED REDESIGNED GATEWAYS
H. PROPOSED RELOCATION OF BASEBALL AND TENNIS COURTS
I. PROPOSED PRESS BOX, CONCESSION STAND, AND RESTROOMS
J. PROPOSED PARKING
K. PROPOSED MULTI-PURPOSE PLAYFIELD
L. PROPOSED RELOCATION OF CAMPUS MAIN ENTRANCE
M. PROPOSED VEHICULAR CONNECTIONS AND ROUNDABOUTS
N. PROPOSED QUADRANGLE & REDESIGNED EXISTING CENTRAL QUADRANGLE
O. PROPOSED MAINTENANCE BLDG.
P. PROPOSED LAND ACQUISITION PARCELS
Section 2  PROCESS AND ANALYSIS

PLANNING PROCESS

The planning process at JSCC was collegial and participatory. There were five steps, which are described graphically in Figure 2.1. The foundation for the planning was an understanding of the College’s mission and vision. Preliminary assumptions were identified based on these factors.

The process consists of five steps or phases beginning with a discussion of aspirations and vision. The second phase consists of three studies and analyses—academic, building, and campus. A summary of needs makes up the third phase which is based on the analyses, peer comparisons, student enrollment data, and other factors. Phase four is an exploration of alternatives for meeting the College’s needs. The fifth and final phase is the Campus Plan documentation.

The project’s primary consultant was DOBER LIDSKY MATHEY (DLM). Campus and environs analysis and mapping were addressed by Lose & Associates, Inc. Assessment of campus-wide utility infrastructure was provided by I.C. Thomasson Associates, Inc.

JSCC’s space inventory was the basis for these studies and for comparisons to peer institutions and THEC space standards.
MISSION, VISION, GOALS, AND OBJECTIVES

Jackson State Community College’s core values and beliefs follow:

VALUES:

Education
We value higher education as the key to a better quality of life. Jackson State is the foundation. We value learning and the continuous pursuit of knowledge. To this end, we provide a learner-centered, affordable opportunity to our students and community.

Integrity
We value unconditional integrity based on fairness, honesty, and the pursuit of truth.

Excellence
We strive for high quality and effectiveness in education, communication, and leadership while accepting responsibility and accountability in all our endeavors.

Service
We value service to the student in the areas of academic, personal, and professional development and leadership in the community through the stimulation of economic growth and quality of life.

BELIEFS:

We believe in people.
We are committed to building and maintaining quality relationships among our faculty, staff, students, and the communities we serve. Teamwork and mutual respect are powerful forces.

We believe in success.
We strive to provide the tools and the expertise to educate the whole student in order that each may reach his/her fullest potential.

We believe in innovation.

MISSION STATEMENT

“Jackson State Community College provides accessible learning opportunities that enhance the lives of individuals, strengthen the workforce, and empower our diverse communities by offering traditional and contemporary associate degrees, certificates, continuing education and enrichment, and college-readiness programs.

- Adopted Spring 2011

VISION AND ACADEMIC/STRATEGIC PLANNING

Jackson State Community College’s vision statement describes their aspirations:

“Jackson State Community College will be recognized within our service area as the affordable leader in academic excellence, student success, and community and workforce development.”

Various academic goals were adopted into the Jackson State Community College 2010-2015 Strategic Plan:

- Distance Education Enrollment
- Participation by Underserved Populations
- Student Success Progression and Students Completing Post-Secondary Credentials
CAMPUS ANALYSIS

SITE CONTEXT

Jackson State Community College is located in West Tennessee in the City of Jackson in Madison County. The campus is shown in green on the Context Drawing 2.1.

The campus is located approximately two and three-quarter miles from downtown Jackson adjacent to an industrial area. North Parkway/Highway 412 is to the north of the campus. F. E. Wright Drive is to the west, and Highway 70 is to the southeast.
LAND USE AND CONTEXT

This drawing shows use of land on the Jackson State campus and on adjacent properties.

The Land Use and Context Drawing 2.2 shows use of land on the JSCC campus and the immediate surroundings. JSCC’s core campus, as well as areas surrounding academic buildings, is colored dark red. Un-programmed campus open spaces are denoted in dark green. Athletic recreation areas and sports fields are shown in lime green. College buildings are shown in a tan color and support facilities are shown in dark gray.

The campus is bounded to the southwest by predominantly light industrial land uses, with multi-family residential to the southeast. To the north and northeast of the JSCC campus and across North Parkway there is a mix of residential and commercial land uses as well as a church property.
Drawing 2.2: LAND USE & CONTEXT

Legend:
- Athletic / Recreation
- Open Space
- Drainage and Retention
- College Buildings
- Student Corridor
- Parking
- Support Facilities
- Light Industrial Land Use
- Residential Land Use
- Retail Land Use
- Church Land Use

Scale: 1" = 300'
LAND OWNERSHIP

College-owned land is colored yellow on Drawing 2.3, Land Ownership. The campus consists of more than 97 acres and is essentially landlocked by existing roads, an industrial park, and multi-family housing with few opportunities for future expansion of the campus.

The College’s land holdings have not been fully developed leaving adequate room for building expansion. The opportunity to purchase property to provide for additional buffering and future expansion would benefit the campus. Because there are limited opportunities to expand the campus, any opportunity to acquire an adjacent property should be carefully considered. Potential land acquisition parcels are shown on this drawing.
Drawing 2.3: LAND OWNERSHIP

LEGEND

- Land Ownership
- Potential Land Acquisitions

JACKSON STATE COMMUNITY COLLEGE

NORTH DR.

U.S. ROUTE 61

SCALE: 1"=300'

DOBER, LIDSKY, MATHEY / LOSE & ASSOCIATES, INC. / LC. THOMASON ASSOCIATES, INC.
PREDOMINANT USE

Predominant use of buildings for the Jackson campus location is shown on Drawing 2.4. The campus buildings are color-coded in six distinct categories.

Academic buildings are colored red. The McWherter Building in the northwest corner and the Nelms Classroom Building found in the core of the campus support various academic programs with classrooms and faculty offices; the Math & Science Building is located southeast of the Nelms Classroom Building on the southeast area of campus; a greenhouse supports the sciences and is found southwest of the Math and Science Building; the Gymnasium/Music Building is a mixed-use facility in the campus core located northeast of Nelms—part of which supports academic programs; another mixed-use facility is adjacent to the Gymnasium/Music Building and houses Art programs.

The Library is colored purple and is found in the campus core.

Administrative use is shown in blue. The F.E. Wright Administration Building houses administrative offices and is located in the campus core; the Student Union located to the east of Wright is currently being renovated as a mixed-use building which contains student-oriented administrative offices and a lounge; the mixed-use facility adjacent and west of the Gymnasium/Music Building houses Security.

Student Life use is indicated in green. The Student Union houses the bookstore, Advising, Counseling, Financial Aid, Student Placement Services, and a student commons area; the mixed-use facility adjacent to the Gymnasium accommodates a student fitness center.

Athletic facilities are found in the Gymnasium/Music Building and are indicated in brown.

Physical Plant operations are colored gray and are located in the center of the campus property, south of the Gymnasium/Music Building.
PEDESTRIAN AND CIRCULATION

Pedestrian movement on paved surfaces, trails, bicycle paths, and potential pedestrian/vehicular conflicts are shown on Drawing 2.5.

Paved surfaces dedicated to pedestrian walks are shown in solid red. Potential conflicts between pedestrians and automobiles are outlined in blue. There is a paved trail along the southern boundary of campus that winds through a grove of trees and an open field adjacent to the two ponds shown as a solid orange line.

The circle superimposed on the maps represents a five-minute walking distance from the circle’s center to the perimeter, based on a walking rate of three miles per hour. The circle is centered on the entrance of the Classroom Building which houses the most classrooms, is adjacent to the campus library, and is the center for academic activity. Distances that are within the circle can be walked in ten minutes or less. This measure is the usual break between two consecutive classes. All of the core academic buildings are within the circle. The only significant gap in pedestrian connectivity is between the McWherter Center and the core campus, due to the distance between them. The sidewalk connecting the two areas is in good condition. Opportunities exist to enhance pedestrian connectivity between the campus core and the McWherter Center through future investments in campus infrastructure and new academic buildings.

Speed bumps are being used in conjunction with pavement striping to reduce vehicular speed and mitigate vehicular/pedestrian conflicts. Bolder pavement striping of pedestrian cross walks would further contribute to motorist awareness in these areas.

The trail system that exists on campus should be realigned where necessary to accommodate roadway modification. It should also be expanded to the west around proposed athletic facilities to increase the overall length of the trail.
Drawing 2.5: PEDESTRIAN CIRCULATION
VEHICULAR CIRCULATION AND PARKING

Drawing 2.6 shows existing roadway systems and parking.

Primary access to JSCC is along North Parkway and F.E. Wright Drive. North Parkway is highlighted in orange and F.E. Wright Drive is highlighted in yellow. There is a secondary access point off of Highway 70 on the southeast side of campus which is highlighted in orange. All internal roads within campus are two-way roads and are shown in magenta on the map. Defined service entrances are shown with blue-filled circles.

Current access points on the north side of campus to North Parkway have poor site lines and create dangerous intersections. Vehicular circulation and parking improvements are shown on Drawing 1.1 on page 3. Realignment of access points to North Parkway is recommended with a new access point moved to the west and the eastern most access point that currently exists should be eliminated. As part of the development of this new access point, acceleration and deceleration lanes should be added to ease the transition of cars between North Parkway and campus. The western most access drive to campus would also benefit with a turning lane added to F. E. Wright Drive. This will mitigate sight distance issues and provide stacking space for vehicles during peak travel periods.

In addition, the loop road around campus should be realigned as indicated in Drawing 1.1 on page 3. The current drive, that connects the north and south loop roads between the Gymnasium/Music Building and the Library, should be removed. The connecting drive that passes between the Student Union and the new Nursing, proposed Allied Health, Classroom, and Math and Science buildings should become service/delivery only. A new loop road should be constructed to the south of the Gymnasium to move traffic outside the academic core. The proposed road realignments will allow for parking lots to be reconfigured, and in some cases expanded. This should provide a more equitable balance of parking throughout campus. Roundabouts are proposed in two locations along the south loop road for traffic calming and to handle the large vehicular traffic volumes at peak times.

All campus parking is provided on surface lots. Parking is distributed across campus with the largest lot located to the southwest of the Nelms Classroom Building. Lots without dedicated ADA compliant parking spaces are designated with a yellow-filled circle. There is a row of unmarked gravel parking spaces along the drive aisle on the southeastern side of the largest parking lot. There are approximately 1,634 marked parking spaces on campus for approximately 2,800 FTE students which translate to about 59 spaces per 100 students. For campuses with enrollments fewer than 3,000 students, the number of spaces average 76 spaces per 100 students. This indicates a significant amount less than the average.
Drawing 2.6: VEHICULAR CIRCULATION AND PARKING

Jackson State Community College

LEGEND

- Buildings
- Parking
- Campus Two-Way Street
- Campus One-Way Street
- Neighborhood Street
- City Road
- State Route
- No Dedicated ADA Parking
- Service Entrance

150/40: Parking Spaces / ADA Parking Spaces
59 spaces per 100 FTE students (Fall 2011)

SCALE 1" = 300'
HYDROLOGY AND TOPOGRAPHY

This map illustrates hydrology drainage and the range of topographic elevations on the campuses. Darker colors indicate lower elevations and lighter tones indicate higher elevations. College buildings are shown in white.

The topography on the JSCC campus falls generally from north to south with an approximate total elevation change of 60 feet across the site. There is a retention pond located in the southeast quadrant of the site that receives a relatively small portion of the overall drainage on the campus. The remainder of the site drains overland and through a series of storm networks that discharge at multiple locations along the southern boundary. There is one small portion of the site that drains to the north via an existing storm culvert under North Parkway.

Many of the buildings are situated down slope from relatively large drainage areas and are currently experiencing moisture and flooding nuisances during rain events. The campus should make it a priority to minimize and eliminate stormwater runoff being directed toward future building sites and create positive drainage at a safe distance away from building foundations. Improved drainage swales and infiltration techniques should be implemented upstream of existing facilities to reduce nuisance flooding.

JSCC should utilize the existing retention pond for future water quality and quantity benefits if analysis proves this to be feasible in terms of the available storage with future building construction. Construction upstream of the pond was noted to have reduced contributing drainage area to the pond. Additional watershed areas may be needed to maintain an adequate water level in the future. A significant amount of trash and debris was visible within the outlet channel of the pond and should be removed to maintain outlet channel capacity downstream. Additionally, JSCC may want to consider adding aquatic vegetation to the pond which can increase pollutant removal in the pond, help stabilize the side slopes, and serve as a wildlife habitat. The best elevations for establishing wetland plats are within 6-inches of the permanent pool elevation. TVA’s Native Plant Selector should be consulted prior to selecting plant material. Woody vegetation should be limited adjacent to the pond for maintenance and damage to embankment and spillway.

The City of Jackson is a state of Tennessee MS4 (Municipal Separate Storm Sewer System) and as such is required by the EPA under authority of the Tennessee Water Control Act to meet certain water quality requirements. The new MS4 permit which became effective on October 1, 2010 has increasingly stringent requirements for treatment of the first inch of rainfall. In order to help comply with this requirement LID (Low Impact Design), capture, and reuse, evapotranspiration1 and infiltration will play a much larger role in stormwater design in the future for JSCC.

Managing stormwater close to the source by introducing pervious pavements, tree canopies, and green space in the impervious parking areas will reduce the amount of stormwater runoff generated on the campus and provide water quality benefits. Individual rain gardens and bio-retention that function to capture the first flush of stormwater pollutants should be considered on the campus. Rain gardens and bio-retention must be appropriately sized based on the contributing drainage areas and the campus should consult the Low Impact Development Stormwater Management Manual prepared for Nashville and Davidson County for further information.

There are no FEMA mapped floodplains present on the JSCC campus and such should not be limited to development from a regulatory floodplain perspective. There are no wetlands according to the National Wetland Inventory maps.

1 “The combination of two separate processes whereby water is lost on the one hand from the soil surface by evaporation and on the other hand from the crop by transpiration is referred to as evapotranspiration.” Natural Resources Management and Environment Department
LANDSCAPE AND OPEN SPACE

Drawing 2.8 illustrates existing campus landscape elements and open spaces, drainage and retention areas, vegetation and tree lines, athletic/recreation fields, and existing parking lots. Open spaces are colored in green with wooded areas and tree lines in dark green. Athletic and recreation areas are shown in light green. Drainage areas are colored light blue with campus buildings shown in tan and parking lots and pedestrian and vehicular circulation are shown in white.

The campus is characterized by several open areas that serve as open landscape between buildings, drainage areas, and athletic fields located on the periphery. Much of the existing core campus is open green space with interspersed parking lots. There are a few well-defined areas that are ideal for passive use such as the area to the northwest of the Classroom Building and southwest of the Library. An ideal area for informal outdoor gathering is the central quadrangle between the Library, Classroom Building, Wright Administration Building and the Student Union. The western quadrant of the campus is largely undeveloped and defined by large open fields.

The eastern edge of campus has a park-like setting and provides an aesthetically pleasing entrance onto campus. The roadway that enters on this side of campus passes over a pond and through a heavily wooded area. Other open spaces on campus are much more open and would benefit from additional tree planting to provide shade and places for informal gathering by students. Adding tree plantings on the perimeter of campus would also create a more unified visual edge for the campus.

The current main identification sign located between the two access drives on the north side of campus is in disrepair, and is out of scale with the surroundings. As part of the development of a new access drive on the north side of campus and new campus gateway, a new sign should be constructed.

Internal campus way-finding signage is adequate, but as the campus continues to construct new buildings and realign roadway systems, updated signage will be needed.
Drawing 2.8: LANDSCAPE AND OPEN SPACE

Landscape and Open Space

- Athletic / Recreation
- Vegetation / Tree Line
- Open Space
- Drainage and Retention
- College Buildings
- Parking
- Campus Entry Signage

Jackson State Community College

DOBER LIDSKY MATHEY / LOSE & ASSOCIATES, INC. / LC THOMASSON ASSOCIATES, INC.

SCALE: 1" = 300'

21
DATA ANALYSIS

RIGHT-SIZING

At Jackson State programs were assessed in order to determine the amount of space that should be provided on the campus. Right sizing JSCC’s space needs is one method to determine if programs are being compromised due to insufficient space. Several methods were used. A comparison was made between the space at JSCC and the amounts at other Tennessee Board of Regents (TBR) community colleges as well as with the Tennessee Higher Education Commission’s (THEC) Space Allocation Guidelines. Additionally, teaching space usage and space assigned to selective departments were analyzed.

PEER COMPARISONS

Contrasting the amount of space at JSCC to space at similar state institutions administered by the TBR is one way to put the College’s facility resources into perspective. A comparison with twelve peer state community colleges is summarized in Table 2.1. In this analysis, the total net assignable square feet (NASF) per campus for THEC formula space are compared for teaching, research, office, library, and physical education. This data indicates that JSCC, with all centers included, has about 242,000 NASF compared with the mean for the twelve community colleges of approximately 269,000 NASF, or 10 percent less than the mean. With an outlier in the research space NASF, the median total gives a more accurate comparison of about 246,000 NASF, or 2 percent less than the twelve peers—very close to the median.

This data also shows that JSCC, with all centers included, had a total FTE student enrollment of 3,257 in the fall of 2011—33 percent less than the TBR mean and 28 percent less than the median. There was a 2,752 FTE enrollment at the main campus only.

A better peer comparison is NASF of space per student shown in the same table and Figure 2.1. The twelve community colleges have a mean of about 57 NASF/student of THEC formula space. However, with an outlier in the research space NASF, the median gives a more accurate picture of almost 62 NASF/student. In comparison, JSCC’s total of approximately 74 NASF/student is 13 percent more than the TBR community colleges’ median. When only the main campus is compared, the results are similar.

For this study, only the main campus will be analyzed.

<p>| Table 2.1: TBR CAMPUS PEER COMPARISON – NASF/STUDENT |
|---------------------------------|----------------|--|--|----------------|------------------|----------------|-----------------|----------------|----------------|</p>
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<td>16.02</td>
<td>15.76</td>
<td>17.52</td>
<td>15.06</td>
<td>15.89</td>
</tr>
<tr>
<td>STCC</td>
<td>15.95</td>
<td>13.74</td>
<td>15.38</td>
<td>13.38</td>
<td>16.02</td>
<td>15.76</td>
<td>17.52</td>
<td>15.06</td>
<td>15.89</td>
</tr>
<tr>
<td>VSCC</td>
<td>15.95</td>
<td>13.74</td>
<td>15.38</td>
<td>13.38</td>
<td>16.02</td>
<td>15.76</td>
<td>17.52</td>
<td>15.06</td>
<td>15.89</td>
</tr>
<tr>
<td>Mean</td>
<td>15.95</td>
<td>13.74</td>
<td>15.38</td>
<td>13.38</td>
<td>16.02</td>
<td>15.76</td>
<td>17.52</td>
<td>15.06</td>
<td>15.89</td>
</tr>
<tr>
<td>JSCC</td>
<td>15.95</td>
<td>13.74</td>
<td>15.38</td>
<td>13.38</td>
<td>16.02</td>
<td>15.76</td>
<td>17.52</td>
<td>15.06</td>
<td>15.89</td>
</tr>
<tr>
<td>Median</td>
<td>15.95</td>
<td>13.74</td>
<td>15.38</td>
<td>13.38</td>
<td>16.02</td>
<td>15.76</td>
<td>17.52</td>
<td>15.06</td>
<td>15.89</td>
</tr>
</tbody>
</table>

Figure 2.1: TBR CAMPUS PEER COMPARISON – NASF/STUDENT
JSCC CLASSROOM USAGE

There are a total of 31 classrooms at JSCC. These are teaching spaces that include seminar rooms, classrooms, and auditoriums in which the Registrar schedules classes. Analyses of these spaces are done in several ways. Measures include how intensively they are being used, if they are the appropriate size for the scheduled class, and if the size is adequate for the number of students given the desired seating style. All data is based on the fall of 2011.

Scheduled hours per week describe the intensiveness of use. The target is generally 30 hours per week and the mean for all classrooms at JSCC was below the target at 14.5 hours per week. Classrooms with 20 to 29 seats—the smallest—were at about 11 hours while the largest space seating 60 to 99 averaged 24 hours per week.

The next measure is the seat occupancy—the size of the section relative to the capacity of the classroom. The target seat occupancy is 60 percent, compared to the College’s mean at 73 percent. The smallest classrooms, those for 20 to 29 students, had a mean seat occupancy of 85 percent, significantly higher than the normative standards suggest. Medium-sized classrooms seating 30 to 49 had a mean occupancy between 61 and 66 percent, relatively close to the target. There is one large space with seating for 84 and was below the target at 51 percent.

The classroom size is determined by the desired teaching style. For room capacities of up to 40 seats, tablet-arm chair seating requires 18 to 22 NASF per student and table-and-chair seating 22 to 30 NASF. The NASF per station for each type gradually decreases as the capacity increases. The mean area per station at JSCC was about 25 NASF, with all classroom sizes having relatively the same NASF per station—about the middle of the of the combined size ranges—depending on the desired teaching style. Based on national data relative to how students learn, there is a preference for the table-and-chair venue.

In the facilities inventory from which the above data was derived, there were 17 of the 31 total classrooms that were not specified with station counts—this affects data reporting for station occupancies and NASF per station.

SPACE ALLOCATIONS

Another measure to determine adequacy of space, is to apply the THEC Space Guidelines to the campus space inventory. Table 2.2 displays existing education and general (E&G) space NASF, right-sized according to the THEC space formula. The table shows the difference in square footage after modeling—either surplus or deficient space.

The total enrollment full time equivalent (FTE) for the main campus is 2,752 students based on the fall of 2011. The table shows right-sizing applied to this enrollment number:

There is currently 208,638 NASF of E&G space. After the THEC space formula is applied, the modeled NASF requirement is about 159,800 NASF. This shows a difference of almost 49,000 NASF, or about a 24 percent space surplus based on the current enrollment.

PROJECTIONS

A JSCC FTE enrollment projection to 5,200 displayed in Table 2.2 is shown with the THEC modeled NASF space:

With an increase of 1,943 FTE students to 5,200, the modeled NASF is increased to about 289,700 NASF required. This shows a difference of about 81,000 NASF, or a 28 percent deficit of existing E&G space.

A larger projection of FTE enrollment to 7,100 displayed in Table 2.2 is shown with the THEC modeled NASF space:

With an increase of 3,843 FTE students to 7,100, the modeled NASF is increased to about 392,968 NASF required. This shows a difference of more than 184,300 NASF, or a 53 percent deficit of existing E&G space.

Table 2.2: PROJECTIONS

<table>
<thead>
<tr>
<th>JSCC Campus</th>
<th>Existing NASF</th>
<th>Existing E &amp; G</th>
<th>Difference</th>
<th>Projected 5,200 FTE</th>
<th>Projected 7,100 FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>I - Classrooms</td>
<td>18,092</td>
<td>35,601</td>
<td>17,509</td>
<td>31,364</td>
<td>43,074</td>
</tr>
<tr>
<td>II - Lab/Studio</td>
<td>64,987</td>
<td>79,005</td>
<td>14,018</td>
<td>119,327</td>
<td>183,267</td>
</tr>
<tr>
<td>III - Open Lab</td>
<td>13,762</td>
<td>3,713</td>
<td>-10,047</td>
<td>26,144</td>
<td>35,602</td>
</tr>
<tr>
<td>IV - Research</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>V - Office</td>
<td>38,120</td>
<td>59,781</td>
<td>21,661</td>
<td>71,409</td>
<td>97,381</td>
</tr>
<tr>
<td>VI - Library</td>
<td>16,569</td>
<td>7,051</td>
<td>-9,518</td>
<td>25,756</td>
<td>32,276</td>
</tr>
<tr>
<td>VII - Physical Ed</td>
<td>8,256</td>
<td>23,487</td>
<td>15,231</td>
<td>15,686</td>
<td>21,363</td>
</tr>
<tr>
<td>Totals</td>
<td>159,784</td>
<td>208,638</td>
<td>48,854</td>
<td>289,646</td>
<td>392,068</td>
</tr>
</tbody>
</table>
Section 3  CAMPUS PLAN

Drawing 3.1 – The Illustrative Campus Plan is an air view of the campus as it might look when all the Campus Plan projects are complete. This vision of the Jackson State Community College campus expresses all of the ideas discussed in this report collected from the many on-campus interviews, discussions, and review sessions.

The Campus Plan concept is illustrated on this drawing. It shows buildings prescribed by the programmatic analysis and landscapes that were conceived through the campus design process. The architects for each of the construction projects will determine final building form and position on each site. The College will also influence the final physical resolution of the Campus Plan, as projects may need to be redirected in response to changing academic and programming requirements. Funding opportunities will also be a factor in the realization of the Campus Plan, both in sizing and sequencing.

The objective to a campus plan is to not only locate buildings that will be required over time to support current and projected academic and student life activities, but to also take advantage of the opportunity to strengthen and enhance the physical image of the campus with these new construction projects.

Please refer to Appendix 3 Drawing 4.4 Land Acquisition/Disposal Plan and Exhibit 4.1 regarding potential land acquisition details.
Drawing 3.1: ILLUSTRATIVE CAMPUS PLAN
## POTENTIAL COST RANGES

### Table 3.1: Building Project Costs

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Construction Costs/SSF</th>
<th>Construction Cost Range</th>
<th>Project Cost Multiplier</th>
<th>Project Cost Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 – Academic Building</td>
<td>$69,000</td>
<td>$240</td>
<td>$355</td>
<td>$16,560,000</td>
</tr>
<tr>
<td>A2 – Academic Building</td>
<td>$69,000</td>
<td>$240</td>
<td>$355</td>
<td>$16,560,000</td>
</tr>
<tr>
<td>A3 – Academic Building</td>
<td>$30,000</td>
<td>$240</td>
<td>$355</td>
<td>$7,200,000</td>
</tr>
<tr>
<td>A4 – Academic Building</td>
<td>$35,000</td>
<td>$240</td>
<td>$355</td>
<td>$8,400,000</td>
</tr>
<tr>
<td>B – Library Addition</td>
<td>$24,000</td>
<td>$260</td>
<td>$345</td>
<td>$6,240,000</td>
</tr>
<tr>
<td>C – Classroom Bldg. Addition</td>
<td>$10,000</td>
<td>$240</td>
<td>$355</td>
<td>$2,400,000</td>
</tr>
<tr>
<td>D – Science Bldg. Addition</td>
<td>$18,000</td>
<td>$300</td>
<td>$490</td>
<td>$4,800,000</td>
</tr>
<tr>
<td>E – Nursing Building</td>
<td>$51,000</td>
<td>$178</td>
<td>$250</td>
<td>$9,090,000</td>
</tr>
<tr>
<td>F – Allied Health Building</td>
<td>$36,000</td>
<td>$178</td>
<td>$250</td>
<td>$6,422,240</td>
</tr>
<tr>
<td>G – Maintenance Building</td>
<td>$25,000</td>
<td>$375</td>
<td>$206</td>
<td>$4,375,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>367,080</strong></td>
<td><strong>$82,647,240</strong></td>
<td><strong>$119,485,000</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Table 3.2: Non-Building Project Costs

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>New 2 lane roadway</td>
<td>3,122 LF</td>
<td>$276.00</td>
<td>$858,650</td>
</tr>
<tr>
<td>Retrofit 2 lane roadway</td>
<td>626 LF</td>
<td>$100.00</td>
<td>$62,600</td>
</tr>
<tr>
<td>New 3 lane roadway</td>
<td>1,175 LF</td>
<td>$340.00</td>
<td>$399,500</td>
</tr>
<tr>
<td>Retrofit 3 lane roadway</td>
<td>2,816 LF</td>
<td>$125.00</td>
<td>$352,250</td>
</tr>
<tr>
<td>New landscaped parking lot</td>
<td>530 EA</td>
<td>$1,900.00</td>
<td>$1,011,495</td>
</tr>
<tr>
<td>Retrofit existing parking lot with landscape</td>
<td>799 EA</td>
<td>$900.00</td>
<td>$719,357</td>
</tr>
<tr>
<td>Monument/entrance signage</td>
<td>3 EA</td>
<td>$75,000.00</td>
<td>$225,000</td>
</tr>
<tr>
<td>New sports fields - softball</td>
<td>1 EA</td>
<td>$85,000.00</td>
<td>$85,000</td>
</tr>
<tr>
<td>New sports fields - baseball</td>
<td>1 EA</td>
<td>$110,000.00</td>
<td>$110,000</td>
</tr>
<tr>
<td>New sports fields - tennis</td>
<td>2 EA</td>
<td>$120,000.00</td>
<td>$240,000</td>
</tr>
<tr>
<td>New sports fields - concession/restroom</td>
<td>1 EA</td>
<td>$125,000.00</td>
<td>$125,000</td>
</tr>
<tr>
<td>New sports fields - press box</td>
<td>1 EA</td>
<td>$80,000.00</td>
<td>$80,000</td>
</tr>
<tr>
<td>1/2 multipurpose trail</td>
<td>9,933 LF</td>
<td>$65.00</td>
<td>$619,645</td>
</tr>
<tr>
<td>NEW concrete sidewalk with lighting</td>
<td>2,673 LF</td>
<td>$50.00</td>
<td>$133,650</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$5,917,842</strong></td>
<td></td>
</tr>
</tbody>
</table>

Opinions of Probable Cost and Materials Estimate

Estimates of construction quantities and opinion of probable costs provided by us are made on the basis of our experience and the level of design. They represent our best judgment as design professionals. We cannot and do not, however, guarantee that the actual construction quantities or costs will not vary from our quantities and cost estimates. Lose & Associates makes no warranty, expressed or implied, for the accuracy of such opinions as compared to bid or actual costs.

## PROJECTS PRIORITIZED

Through a process of meetings and discussions, formal interviews and informal conversations, a list of 16 projects was developed by the College and consultants. These projects are outlined under Campus Plan Overview on page 1. All of these projects are important; however it is not feasible for all of them to be addressed either at the same time or at this time.

Priorities needed to be set. The table below ranks these projects in order of importance.

<table>
<thead>
<tr>
<th>Rank Order</th>
<th>Project ID</th>
<th>Project Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>E</td>
<td>Nursing Building</td>
</tr>
<tr>
<td>2</td>
<td>O</td>
<td>Proposed Maintenance Building</td>
</tr>
<tr>
<td>3</td>
<td>P</td>
<td>Land Acquisitions</td>
</tr>
<tr>
<td>4</td>
<td>N</td>
<td>Quadrange and Redesigned Existing Central Quadrangle</td>
</tr>
<tr>
<td>5</td>
<td>M</td>
<td>Venetian Connections and Roundabouts</td>
</tr>
<tr>
<td>6</td>
<td>F</td>
<td>Allied Health Building</td>
</tr>
<tr>
<td>7</td>
<td>L</td>
<td>Main Campus Entrance Relocation</td>
</tr>
<tr>
<td>8</td>
<td>G</td>
<td>Redesigned Gateways</td>
</tr>
<tr>
<td>9</td>
<td>B</td>
<td>Library Expansion</td>
</tr>
<tr>
<td>10</td>
<td>H</td>
<td>Baseball Field Relocation and Tennis Courts</td>
</tr>
<tr>
<td>11</td>
<td>I</td>
<td>Press Box, Concession Stand, and Restrooms</td>
</tr>
<tr>
<td>12</td>
<td>K</td>
<td>Multi-Purpose Playfield</td>
</tr>
<tr>
<td>13</td>
<td>J</td>
<td>Expanded Parking</td>
</tr>
<tr>
<td>14</td>
<td>C</td>
<td>Nelms Expansion</td>
</tr>
<tr>
<td>15</td>
<td>D</td>
<td>Math &amp; Science Expansion</td>
</tr>
<tr>
<td>16</td>
<td>A1 – A4</td>
<td>Academic Buildings</td>
</tr>
</tbody>
</table>
Section 4  APPENDICES
APPENDIX 1

UTILITIES, INFRASTRUCTURE, AND COSTS

I. Existing Campus Conditions

Mechanical Systems

Because there is no central chiller or boiler plant at JSCC, there is no typical mechanical infrastructure. Each building on campus has its own independent heating and cooling system. Most systems consist of a chiller, cooling tower, and gas-fired hot water boiler with built-up air handlers or fan coil units. There are some split system and roof top Direct Expansion (DX) systems. Many of the systems are from the original 1967 construction. Most have constant speed pumps with 3-way bypass-type valves at the units. Many buildings use a mix of pneumatic and digital controls without a central Energy Monitoring System (EMS). New chillers have been installed in the Science building, Classroom, and C Annex. A new boiler has been installed in the Science building. The Classroom Annex has a new LG variable refrigerant volume (VRV) system that is currently in the latter stages of troubleshooting. The McWherter Center is a recent addition to the campus and therefore has new chiller, boiler, and up-to-code air handlers and ventilation system. Even with a new system, however, there have been complaints that the above-ceiling units are noisy to the point that they interfere with classroom instruction.

Most buildings still appear to have many of the original plumbing fixtures. These consume considerably more water than the newer low-flow types. Hot water is provided by a mix of gas and electric water heaters. Fire protection seems to consist largely of local fire alarm pull stations and fire extinguishers. The Computer Center in the Classroom Building is protected by an old Halon-type system that is obsolete by today’s standards. Only the McWherter Center and the Student Center have sprinkler systems.

Electrical Systems

The local utility provides power to two points on campus, one (1) for the McWherter Center and one (1) for the remainder of the Campus. The primary distribution system for the main Campus is an underground radial feed with no means of disconnection in the radial feed. The underground cable and padmount transformers are owned and maintained by JSCC. The main Campus overhead service disconnect switch and metering device are located at the southwest corner of the campus. It services eight (8) facilities (Wright Administration, Library, Student Center, Math & Science, Classroom, Art & Fitness, Gymnasium, and Maintenance Buildings) with lateral feeds. The service is fed overhead from the eastside of the campus (Whitehall St/Hwy 412). The buildings are not sub-metered, therefore the loading (demand) of the individual buildings is not known.

The transformers and underground primary cable are original, approximately forty-five (45) years old. Since it is a radial feed from the utility pole, the entire campus will be down if there is a fault on the underground cable or a transformer until the fault is repaired.

Communications

Deteriorating telephone lines throughout the campus have recently been replaced with new 10 Gb fiber runs. Data lines throughout the campus are a mix of old and new. The bookstore, which is owned by an independent vendor, has its own dedicated line.

II. Future Campus Infrastructure Requirements

Mechanical

Based on the load characteristics of similar types of campus buildings, the proposed buildings and additions would be expected to have the following projected loads:

<table>
<thead>
<tr>
<th>Concept Letter/ Building Name</th>
<th>SIZE (SF)</th>
<th>CLG LOAD (TONS)</th>
<th>HTG LOAD (MBTUH)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 – Academic Building</td>
<td>69,000</td>
<td>200</td>
<td>1,750</td>
</tr>
<tr>
<td>A2 – Academic Building</td>
<td>69,000</td>
<td>200</td>
<td>1,750</td>
</tr>
<tr>
<td>A3 – Academic Building</td>
<td>30,000</td>
<td>85</td>
<td>750</td>
</tr>
<tr>
<td>A4 – Academic Building</td>
<td>35,000</td>
<td>100</td>
<td>875</td>
</tr>
<tr>
<td>B – Library Addition</td>
<td>24,000</td>
<td>70</td>
<td>600</td>
</tr>
<tr>
<td>C – Classroom Bldg. Addition</td>
<td>10,000</td>
<td>30</td>
<td>250</td>
</tr>
<tr>
<td>D – Science Bldg. Addition</td>
<td>18,000</td>
<td>75</td>
<td>450</td>
</tr>
<tr>
<td>E – Nursing Building</td>
<td>51,000</td>
<td>200</td>
<td>1,300</td>
</tr>
<tr>
<td>F – Allied Health Building</td>
<td>36,080</td>
<td>100</td>
<td>900</td>
</tr>
<tr>
<td>O – Maintenance Building</td>
<td>25,000</td>
<td>65</td>
<td>1,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>367,080</td>
<td>1,125</td>
<td>9,625</td>
</tr>
</tbody>
</table>
The new heating and cooling load associated with the proposed new buildings could be met several ways. Options that should be considered include a central plant, mini-plants in appropriate areas, or individual building systems.

This load could be considered large enough to justify the construction of a central chilled water/boiler plant. Given the age of the equipment in many of the buildings on campus, a central plant system could also include the buildings that are still functioning with their original heating and cooling systems. These older buildings could be added to the system as they are renovated and their old Direct Expansion (DX) equipment replaced with new chilled water air handlers and terminal units. Buildings to consider adding to the system would be the Gym, Library, and Administration buildings. The ultimate plant size would be 1600 tons of cooling and 14,500 mBtu of heating. This would be a major shift in operating philosophy but could serve to centralize equipment and maintenance and to save energy. The plant could be located adjacent to the proposed new maintenance building. This concept is illustrated in Drawing 4.1: Option A - Central Plant. The advantages of a central plant include:

- Higher energy efficiency
- Taking advantage of building load diversity to reduce the overall tonnage required
- Aesthetics and noise – no cooling towers or condensing units around campus buildings or compressors in occupied space

There are two significant disadvantages to a central system – the initial cost and the campus disruption involved in installing the distribution pipes. The estimated probable cost of construction for the first phase of a central plant sized to serve the new Nursing Building and proposed Allied Health Building with appropriate back-up capacity would be on the order of $1.1 million. The distribution system would also be over $1 million. The ultimate cost of the fully built-out plant and distribution system is estimated at $6.6 million. It is frequently difficult to allocate funding for a central plant when the buildings it will serve are to be built over an extended period of time. Therefore, other options should be considered.

A more incremental approach would be to take advantage of the proximity of certain buildings and serve them by mini-plants. Based on the proposed layout shown in the Concept Plan, the opportunity exists to combine equipment for three groups of buildings. The Nursing Building and Allied Health Building could share a common water source heat pump system or chiller/boiler system with the major equipment located in the equipment room of whichever building is built first. Academic Buildings A1 and A2 are in the unique position of sitting on the site of the current ball field. It would be relatively simple to install the bore field for a ground source heat pump system for these two buildings before the parking lot is built. This could be installed as two separate systems or joined to take advantage of building load diversity depending on the future uses of the buildings. The ground source heat pump system, like a central plant, has a high front-end cost, which can be recovered through energy savings over the life of the building. The estimated probable cost of the bore field portion of the system is approximately $800,000 for the two buildings. The center of campus contains proposed sites for two future buildings and an expansion plus the existing buildings that have not had major equipment renovations. Therefore, a smaller central chiller/boiler plant could be located closer to these buildings to provide chilled water and hot water only to the core of the campus. The estimated probable cost of construction for this smaller central plant is $1 million with an estimated distribution system cost of $1.4 million. These mini-plants are shown in Drawing 4.2: Option B – Mini Plant.

Finally, Jackson State has the option of continuing with its current mode of individual building systems. This will typically have the lowest front-end cost with a slight sacrifice in energy efficiency. While equipment maintenance is more spread out over the campus, it is typically less proprietary equipment that can usually be serviced by campus maintenance. There are a number of measures that the college can take to decrease energy consumption even without a central system. These are discussed in the following section.

**Electrical**

The transformers and underground primary cable are original, approximately forty-five (45) years old. Due to the age of the existing underground cables, it is not recommended to feed the new Academic, Nursing, or Allied Health buildings from the existing primary distribution system without first replacing the cables. Splicing into the old cable and adding load could increase the risk of failure. Instead, it is recommended to feed the new buildings from new Utility service(s). The new primary services will extend underground from existing overhead Utility lines to feed the new building(s). The primary cables and building transformers will be owned by the Utility and each transformer will have its own Utility meter, and thus will have a slightly higher overall utility bill than if the buildings were on the single Campus meter. If in the future the Campus system is upgraded with new cables and transformers, these buildings can then be added onto the existing system to be included on its single meter.

For building expansions, it is recommended to first monitor the existing building demand to determine if the existing service can accommodate the new loads. If so, then the expansion can be fed from the existing service panels. If not, then there are two (2) options. The first option is to provide a new Utility service and transformer as for a new building. The second option is to replace the existing building transformer and service panel with larger sizes and feed the addition from the new panel. However, this will place additional load on the old primary cables.
Communications

Technology has quickly become an active part of education over the last 10 years and will only intensify exponentially over the next 10 years. Mobile computing is widely becoming a mainstay in today’s society. With the “Bring Your Own Device” (BYOD) concept being fostered, the College's wireless infrastructure should be increased to improve capacities and throughput. Today’s students are embracing the use of tablets and laptops in the classroom, and across campus. Having the tools at their fingertips to conduct up-to-the-minute research is essential in developing productive students. Technical capabilities and how the College utilizes and distributes technology could be deciding factors for an incoming student.

III. Physical Master Plan – Campus Infrastructure

Mechanical

Given the reality of today’s economic situation, it is most realistic to look at lower first cost options and then work to operate as efficiently as possible. If JSCC chooses to stay with individual building systems, there are still a number of opportunities for energy conservation in both the new construction and the existing buildings. Future chilled water and hot water systems should be designed for variable flow, and existing systems should be converted to variable flow systems as fan coil units and pumps are replaced. This will lower energy costs by pumping only the hot water or cold water that is required around the building. DX Systems should use high efficiency technology like water source heat pumps (WSHP) or variable refrigerant volume (VRV). Where noise is a consideration VRV is quieter at the terminal unit. Renovations should bring ventilation systems up to code using energy recovery where feasible. An EMS could be installed in each building to allow for night setback, demand controlled ventilation, and other energy saving operational strategies. Basic information could be collected at the Maintenance Building to aid in energy conservation programs. The noisy terminal units in McWherter should be replaced with fan coil units whose acoustic properties are more appropriate for classroom use.

Plumbing fixtures should be replaced with low-flow fixtures. Up-to-date fire alarm systems with sprinklers should be installed where appropriate. The fire protection system in the Classroom Building’s Computer Center should be considered for an upgrade to a Clean Agent type system.

Electrical

As mentioned previously, the primary system consists of 45 year old underground cable and transformers. If a fault occurs anywhere in the system, the entire campus will be without power. Therefore, it is recommended to replace all underground cables and transformers. Also, to make a more reliable system it is recommended to complete a system loop by feeding the last transformer in the existing radial system from another overhead Utility source. This will enable the campus to isolate and repair a fault while keeping the system energized. The associated cost with a new primary electrical system is approximately $1,500,000.

If budget constraints do not allow timely replacement of the primary electrical system, new buildings must have separate Utility services. The associated cost will be the primary underground ductbank from the transformer to the Utility riser pole and the transformer pad. The Utility will most likely include the cost of the cables and transformers throughout the life of building in the monthly billing. Presumably the riser pole will be nearby (within 50 feet) and the ductbank will be approximately $150/foot, for a total of $10,000 including the transformer pad.

If the direct building option is chosen for building additions, the cost of a new padmount transformer and service panel will be included. Depending on the transformer and service panel size, this cost will range between $30,000 and $50,000.

Communications

The new fiber system that was recently installed on the campus has the ability to extend to the new Nursing Building and proposed Allied Health Building near the Science and Math Building. New connections will be required as new construction continues on the campus.
Drawing 4.1: 
OPTION A – CENTRAL PLANT
APPENDIX 2

Drawing 4.3:
QUADRANGLE CONCEPT PLAN

Quadrangle Concept Plan

LEGEND
- AMPHITHEATER/SHELTER
- CLOCK TOWER
- SEATING AREAS
- CENTRAL PLAZA
- OUTDOOR DINING AREA
APPENDIX 3

Drawing 4.4: LAND ACQUISITION/DISPOSAL PLAN

September 9, 2012

Mr. Horace Chase
Vice President for Finance and Administrative Affairs
Jackson State Community College
Jackson, TN

Dear Mr. Chase,

Jackson State Community College, with less than 100 acres, is land shy. At some point in time, the amount of land that the College has will constrain growth and development. I would like to suggest a strategy to acquire adjacent land.

To the north, North Parkway is a boundary that probably shouldn’t be crossed given the width of the road, and the amount of fast moving traffic. Interstate Highway Connector is another boundary that shouldn’t be crossed for the same reason.

To the southeast is a housing complex where acquisition is going to be difficult and time consuming.

The best area for the College to concentrate on is the industrial land on the southwest of the campus and abutting campus property. The area is outlined in red on the aerial photograph. Although the College should consider acquisition of the entire area, I would place a high priority on the properties that are directly adjacent to the College.

There are three properties that are on the northern side of the area in the red box and two properties along the eastern edge (one property is counted twice).

The one property that I counted twice because it is both on the north and on the eastern edge is the 75 College Park Cove building - map 65 parcel 74.04. The building is basically a 25,000 GSF warehouse - and in a good location to relocate the College’s facility’s operation, shops, and support. The building is currently for sale and if possible, Jackson State should not lose this opportunity to acquire this land and building.

In addition there is a parcel of land, also for sale, to the south of the College Park Cove property that, if purchased, could be used for expansion of College parking. It is approximately 7 acres. This is 80 College Park Cove and registered as map 65 parcel 74.08.

As parcels in that red box area become available, the College should seek to acquire them.

I will certainly answer any questions that you may have about this land acquisition strategy.

Cordially,

Arthur J. Lidsky, AICP
APPENDIX 4

JSCC NON-OWNED TEACHING LOCATIONS

Table 4.1: Non-Owned Teaching Locations and FTE Student Enrollment

<table>
<thead>
<tr>
<th>Official Name</th>
<th>911 Address</th>
<th>City</th>
<th>County</th>
<th>Primary Use</th>
<th>Secondary Use</th>
<th>Ownership</th>
<th>FTE Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savannah-Hardin County Center</td>
<td>840 South Pickwick Street</td>
<td>Savannah</td>
<td>Hardin</td>
<td>Classrooms</td>
<td>Offices</td>
<td>Fair Market Lease</td>
<td>141.8</td>
</tr>
<tr>
<td>Lexington-Henderson County Center</td>
<td>932 East Church Street</td>
<td>Lexington</td>
<td>Henderson</td>
<td>Classrooms</td>
<td>Offices</td>
<td>Fair Market Lease</td>
<td>185.87</td>
</tr>
<tr>
<td>Humboldt Higher Education Center</td>
<td>1751 East Main Street</td>
<td>Humboldt</td>
<td>Gibson</td>
<td>Classrooms</td>
<td>Offices</td>
<td>Fair Market Lease</td>
<td>64.27</td>
</tr>
</tbody>
</table>

Figure 4.1: Non-Owned Teaching Location Service Areas