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Campus planning and design: exploring the programmatic elements involved in creating residential campus courtyards

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CAMPUS PLANNING AND DESIGN: EXPLORING THE PROGRAMMATIC ELEMENTS INVOLVED IN CREATING RESIDENTIAL CAMPUS COURTYARDS

By

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This thesis peruses the programmatic elements that are considered and implemented by designers and administrators and whether these elements contribute to creating successful residential campus courtyards in the southeast United States. A web-based survey questionnaire was administered to designers and administrators who have been involved in projects that were built in the region. Based on literature, site observations, and the results of the survey the researcher illustrates which program elements were the most important, as well as whether each element was implemented on site and why.

Key words: Campus Planning, Landscape Architecture, Residential Campus Courtyards, Sustainable Campus

DEDICATION

I dedicate this research to my parents, Kamel Mahadin and Khalidah Maaitah, who have been supportive and have given me strength and motivation throughout my graduate school. Also I would like to extend this dedication to my wife Zain Sharairi, my brothers Yazan and Amer, and my sister Tamara, for standing beside me over the years.

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LIST OF ABBREVIATIONS

GIS	Geographical Information System
LSU	Louisiana State University
MSU	Mississippi State University
Ole Miss	University of Mississippi
UF	University of Florida

CHAPTER I

INTRODUCTION

1.1 Introduction

College and university campuses change every day, sometimes unnoticeably, sometimes dramatically. These modifications can reflect changes in people's behavior, the economy, and the environment. The way campuses look today results from decisions minor and significant, as well as casual and formal, that have been made through time. These changes have emerged over long periods of time and have been implemented for various reasons, such as changes in academic missions, an increase in environmental concerns, or growing numbers of faculty and students (Lidsky 2002).

Castaldi (1968) mentioned in his book, *Creative Planning of Educational Faculties* that "each institution has its own overall philosophy, its own program, and its specific needs" (Castaldi 1968, 268). Because each institution has its own unique mission statement, goals, and objectives, the planning process needs to address these specific needs. According to Lidsky (2002) campuses need to be planned deliberately, carefully, and rationally because "the future health of higher education depends on better planning and management" (Lidsky 2002, 70). Therefore, modern-day campuses should be analyzed and designed properly for many reasons, but most importantly to provide an inspiring space that demonstrates how we should treat our environment, how to restore it, and how to improve it (Franklin 2003).

This study focuses on the most important programmatic elements for designers and administrators in creating a successful residential campus courtyard in the southeast U. S., and on whether or not these elements were implemented on each site selected by the researcher and why. In order to conclude which elements create a successful residential campus courtyard, a survey questionnaire for designers and administrators was created using three survey design methods; the first consists of open-ended questions which seek description and elaboration; the second is an ordinal method that seeks a ranking of the programmatic elements from the participants' perspective; and the third method is open-ended questions that ask for more elaboration from the participant on the subject matter.

1.2 Goal and Objectives

The goal of this study is to determine what designers need to consider in order to create a successful residential campus courtyard in the southeast United States. This study seeks to determine the most important programmatic elements that will create a successful residential campus courtyard through the following steps:

1. Examining the literature to understand the history of campus planning and design and to discover the trends in creating residential campus courtyards.
2. Investigating existing designed projects that are completed and observe them objectively in order to discuss how they were designed.
3. Developing a survey questionnaire for designers and administrators to determine which programmatic elements are the most important to them.

4. Investigating the results to identify the most important programmatic elements in creating a successful residential campus courtyard in the southeast, and discussing if they were implemented during the design processes.

1.3 Scope of the Study

The purpose of this study is to explore and understand the challenges of implementing programmatic elements that designers and administrators need to consider in order to create a successful residential campus courtyard in the southeast United States. The approach was based on a survey questionnaire of designers and administrators that have been involved in projects that were built. Based on informal discussions with the designers and administrators of the selected projects, the researcher illustrated which elements are the most important, as well as whether each element was implemented on site and why. He then proposed further recommendations that could be helpful for creating a successful residential campus courtyard in the southeast.

1.4 Hypothesis

Exploring the programmatic elements involved in creating a successful residential campus courtyard will illustrate which elements are the most valuable to landscape architects when creating such a space from the designers' and administrators' perspectives.

1.5 Initiation of this Study

The researcher began by selecting, along with his thesis committee, four residential campus courtyards in the southeast United States. The selection was based on size and location of these courtyards. Each courtyard was then visited in order to observe each space and take photos. The researcher then met with each campus courtyard

administrator to obtain information about who designed the space and to inform him or her about the purpose of the research.

1.6 Methodology Overview

The focus of this study was narrowed to residential campus courtyards, and it explores the most valuable elements that landscape architects should consider in creating a successful residential campus courtyard. The first phase is studying the definition of campus planning and design and its history. The second phase is studying how modern-day campuses took their form through time and how they were influenced. These influences include site design, pedagogy, sustainability, and dynamics of social life in urban spaces. This approach is illustrated in figure 1.1, and will guide this study in compiling a list of the potential programmatic elements needed for creating a successful residential campus courtyard.

The next phase involved selecting four residential campus courtyards in the southeast United States. Each site selected has been built within the last ten years, and the size of each site is between two and four acres of land. The potential programmatic elements were prepared after investigating the literature and objectively observing these sites. Then a survey questionnaire was prepared for each designer and administrator who was involved with the site designs.

The final phase compared and analyzed the designers' and administrators' responses to the researcher's observations. The results show which programmatic elements were or were not considered by the designers and administrators and why. From the results, recommendations were derived for further studies on the topic.

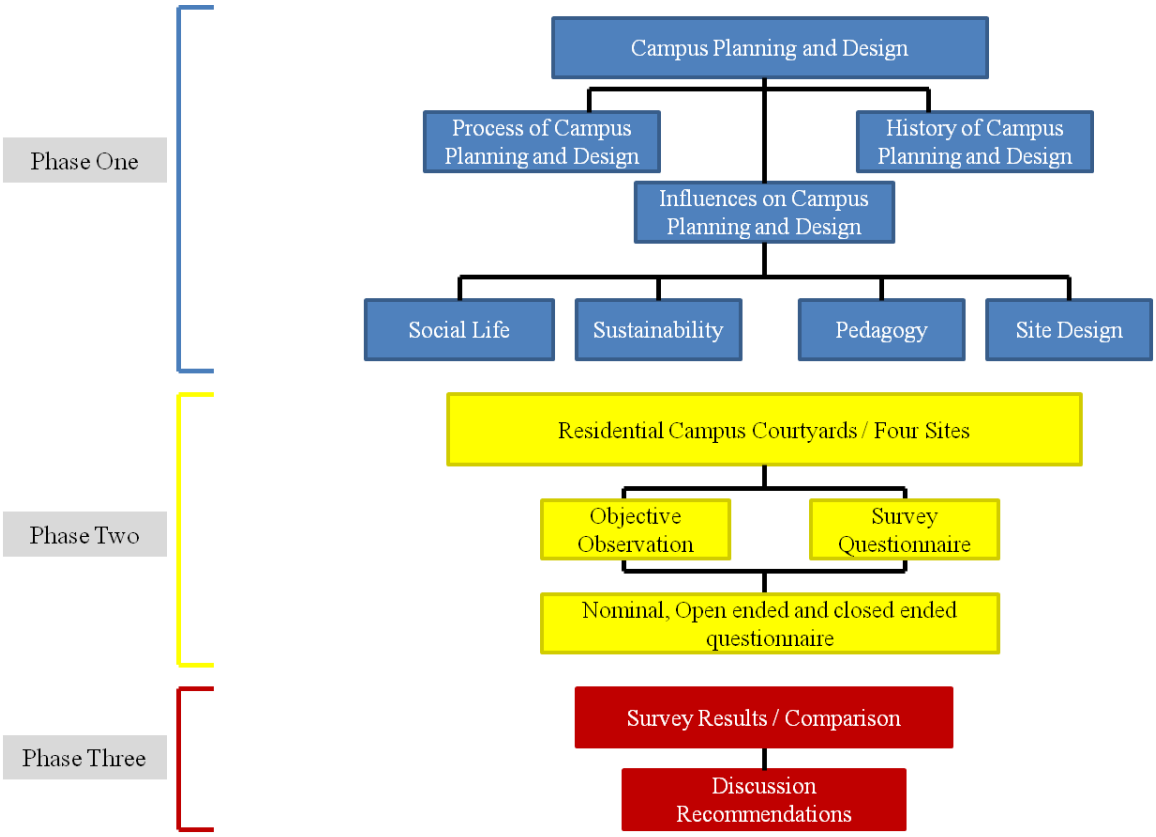

Figure 1.1 Methodology Graphic Overview

1.7 Organization of Thesis

The subsequent parts of this thesis are organized into the following chapters: Literature Review, Methodology, Results, Discussion, Conclusions, and Recommendations. The Literature Review Chapter explores the origins of campus planning and design and its processes in order to gain an understanding of the trends that lead to the creation of a successful residential campus courtyard. The Methodology Chapter then describes the design of the survey that was completed by the participants.

Next, the Results Chapter shows the participants' responses. Then in the Discussion Chapter, the researcher discusses the relationship between the participants' responses and the literature findings. The researcher also provides some recommendations for future studies that could be conducted based on this study.

CHAPTER II

LITERATURE REVIEW

2.1 Campus Planning and Design

2.1.1 Introduction

Lidsky (2002) states that "Campus planning is the process of identifying and guiding those institutional decisions in higher education that have spatial implications" (Lidsky 2002, 70). The academic leaders' mission for any educational institution is to develop a guiding process for a campus to support the functional, aesthetic, and economic goals within the framework of the institution's history, mission, and vision for the future (Lidsky 2002). Figure 2.1 shows how Lidsky's concept of campus planning can be divided into separate components. This illustration suggests that decision makers, such as the board of trustees at any university, should go through the general steps shown in order to build and sustain strong academic programs in various fields—a process that is not easy because the institutional leaders base their decisions on a long-term plan (Lidsky 2002).

Dober (1996) clarifies in his book *Campus Planning* that there are short, middle, and long-term stages in the planning process which universities need to consider in order to meet the challenges of the 21st century. From a historical point of view, there are two major components in the process of designing a campus: the structural component and the content style. Both of these elements make up the skeleton of architectural form (Dober 1996). It is significant to make an appropriate campus design because a campus is

an essential space for providing ideas and instruction for planning and designing the environment that we are a part of; a campus symbolizes the higher level of knowledge that we seek to reach in our education (Dober 2000).

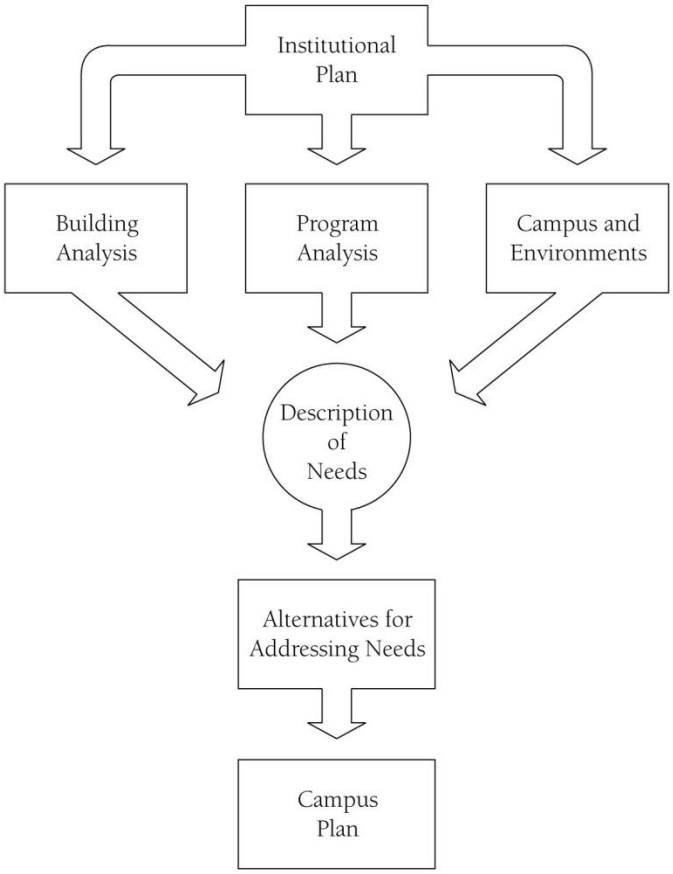

Figure 2.1 Campus Planning Process. *Source:* Lidsky 2002, 71.

2.1.2 Process of Campus Planning

The process of campus planning should involve everyone who uses the university campus: faculty, students, staff, and the surrounding community. The campus itself embodies the mission, goals and objectives, facilities, and environs of the university (Lidsky 2002). An example of this process is highlighted by the 2010 Sasaki master plan. During the beginning of this research, the researcher was accepted to work as a graduate

assistant for the Mississippi State University office of Campus Planning. In 2010, Mississippi State University selected the landscape architecture firm Sasaki Associates to work on their master plan. The firm began their effort by stating that the master plan is:

> the outcome of a year-long planning process that engaged a wide cross section of the campus and local communities. The process itself is one of the outcomes of the Master Plan; a process designed to foster a planning culture to not only inform the development of the plan but also to guide future implementation. (Sasaki 2011, 17)

The planning process was addressed in three phases: inventory and analysis, concept alternatives, and master plan documentation. The inventory and analysis phase is based on interviews with university stakeholders to find the goals and objectives for the university's master plan. This process investigates the existing physical and social conditions of the communities that surround the university. It also tracked the planning of the campus throughout time. Sasaki Associates found almost 700 documents that are related to the planning process of Mississippi State University. This data was necessary in order to prepare suitable documentation that addresses the challenges that any university may have, and also to provide suitable resolution for the university's challenges.

The concept alternatives phase provided several divergent ideas for short-term and long-term development; these concepts address land use, landscape character, circulation and parking, program accommodation, and overall campus integration. This phase focused on which preferred concept would be most suitable to serve the university's mission.

The master plan documentation was the final phase of the process, and provided the details of the findings that will guide the university in developing the campus over time. This document is a guiding tool for the university's office of campus planning, and

provides potential ideas that will allow the university to be better place for its users (Sasaki 2011).

2.1.3 History of Campus Planning and Design

2.1.3.1 The European Campus

The birth of universities is traced back to the medieval ages. The first European campus established was the University of Bologna in 1155, which is the oldest university still in operation. This university was a model educational facility for students at the time it was founded. The University of Paris was then established shortly after the University of Bologna. Following the establishment of these universities, the University of Cambridge was established in the mid 13th century. The spatial organization of all three universities was inspired by mendicant monasteries, structures which can be traced back to the middle of the 11th century (Ridder-Symoens 1996).

Following the establishment of Cambridge, seven more universities were founded in Europe in the 13th century. Eighteen more were then founded in the middle of 14th century. Next, Germany, Spain, and Portugal each began to establish universities by the 15th century (Ridder-Symoens 1996).

The universities that were founded after the 15th century were better equipped with more appropriate facilities than the universities that predated them, because the designers observed the challenges that the older universities encountered with their designs. One such problem was establishing new academic programs in the same location as the existing programs (Ridder-Symoens 1996). By the 16th century, the English colleges displayed an ideal system for university education. The design model of both

Oxford and Cambridge Universities can be traced back to the design of the University of Paris (Turner 1987).

Turner (1987) explained in his book, *Campus: An American Planning Tradition*, that the British colleges' courtyard designs shown in figure 2.2 were influenced strongly by the traditional cloister monastery shape and architectural regularity. This is because the campuses were surrounded by communities that also embodied this religious architectural design form. Another reason for the use of a closed cloister design is the protection it provided against potential danger from the outside. Figure 2.3 shows a plan of Corpus Christi College at Cambridge that illustrates an example of quadrangle-shaped courtyards.

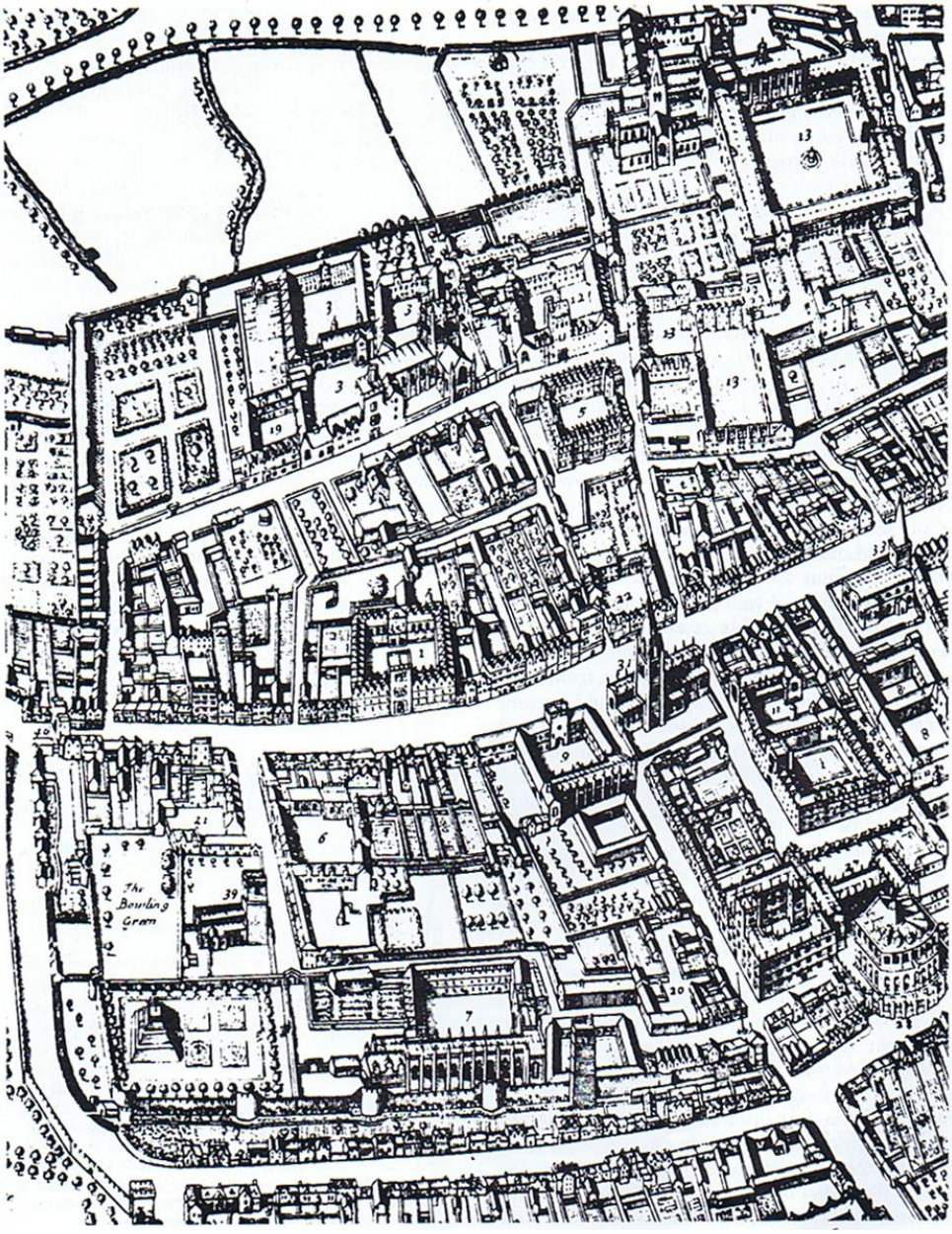

Figure 2.2 Portion of David Loggan's map of Oxford. *Source:* Turner 1987, 11.

This image illustrates Oxford organization based on cloister monastery shape.

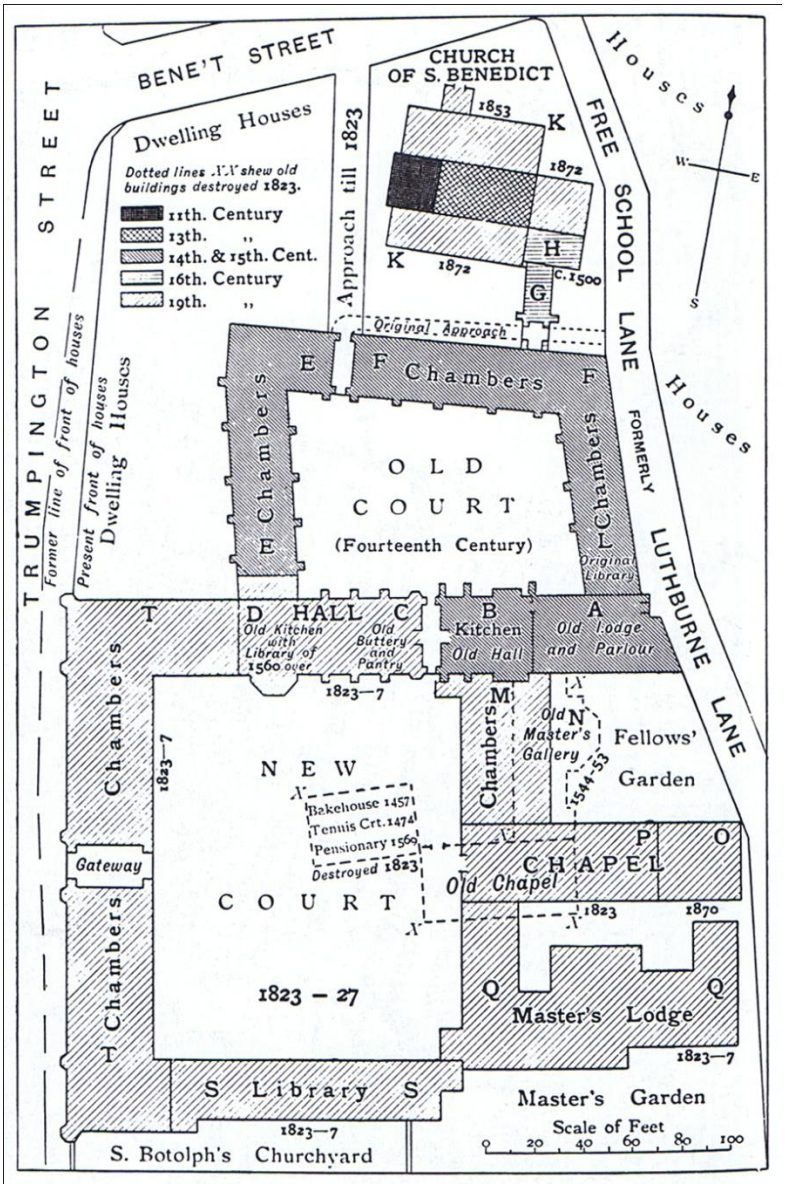

Figure 2.3 Plan of Corpus Christi College, Cambridge. *Source:* Turner 1987, 10.

This plan illustrates an example of quadrangle-shaped courtyards during the fourteenth century.

2.1.3.2 The American Campus

The United States continues to be heavily influenced by the historical patterns of European campuses in various aspects, including architectural form and spatial organization (Chapman 2006). The origins of universities in the United States can be traced back to the beginning of the 17th century (Turner 1987). The first American colleges that demonstrated planned composition based on site conditions are the colonial colleges built between 1636 and 1780, including William and Mary and Harvard (Dober 1996).

Harvard College in Massachusetts and William and Mary College in Virginia were the first colleges founded in the United States. Harvard was established in 1636, and it had the largest building at that time in New England on its campus. William and Mary College was established in 1699, and its campus had the largest building in the state of Virginia (Turner 1987). William and Mary was one of the first colleges in the United States to embody a strong architectural composition with buildings arranged throughout a space based on the preexisting site conditions. Later on, Union College in New York had the first comprehensive campus plan in 1813, which was prepared by architect Joseph Jacques Ramee (Dober 1996).

In the 19th century, Thomas Jefferson proposed the significant idea of placing an educational facility in Virginia. His idea was to build a regional public academy in central Virginia (Chapman 2006). It was to be called an "academical village," and its design focused on reaching out to students and professors in an appropriate landscape setting (Turner 1987, 3). Thomas Jefferson's design principles have played a major role in shaping the American campus landscape and his ideas are still being analyzed and emulated when modern university campuses are planned (Chapman 2006).

Turner (1987) explained that in the mid-eighteenth century, two factors contributed to the placement of a college: "a distrust of cities…and an attraction to the supposed purity of nature" (Turner 1987, 18). The most significant element that was present at Harvard, William and Mary, and other colonial universities at that time, was the diversity of their campus plans. Harvard used the three sided courtyard, while William and Mary used a design form like Oxford's, with an enclosed quadrangle landscape theme.

With the increase in U.S. population in the 19th and early 20th centuries, university campuses began to evolve and expand (Chapman 2006). By 1960, almost four million students were enrolled at accredited institutions (Dober 1996). During this period, the construction of new buildings and facilities was based on realigning the spaces with existing topography (Chapman 2006).

2.2 Influences on Campus Planning and Design

2.2.1 Site Design

Campus universities need to provide inviting and flexible spaces with creative design themes. Providing such spaces creates a learning space with which the students can interact. In order to achieve this goal, a clear understanding of the existing physical landscape is needed. Such an understanding of the existing space will help the designer address various challenges, such as the evolving social or cultural environment, and will ensure that the design is effective (Dee 2010). Dober (2000) explained in his book, *Campus Landscape: Functions, Forms, Features*, that the features which determine campus landscape design and the components of campus design taxonomy are essential elements for creating a suitable campus design. In Dober's diagram, figure 2.4, the design

determinants are itemized and the campus landscape components are listed in the taxonomy. This diagram suggests that the latter will be influenced by the former, thus giving the forms and features unique characteristics evocative of the specific location and situation.

The significance of site design can be summarized in one short statement: "How the campus begins is very important to its long-term success" (Kriken 2004, 45). Designers need to make the right decisions at the beginning of the design process of any educational facility because these early decisions will lead to long term success that will serve the institution's mission (Kriken 2004).

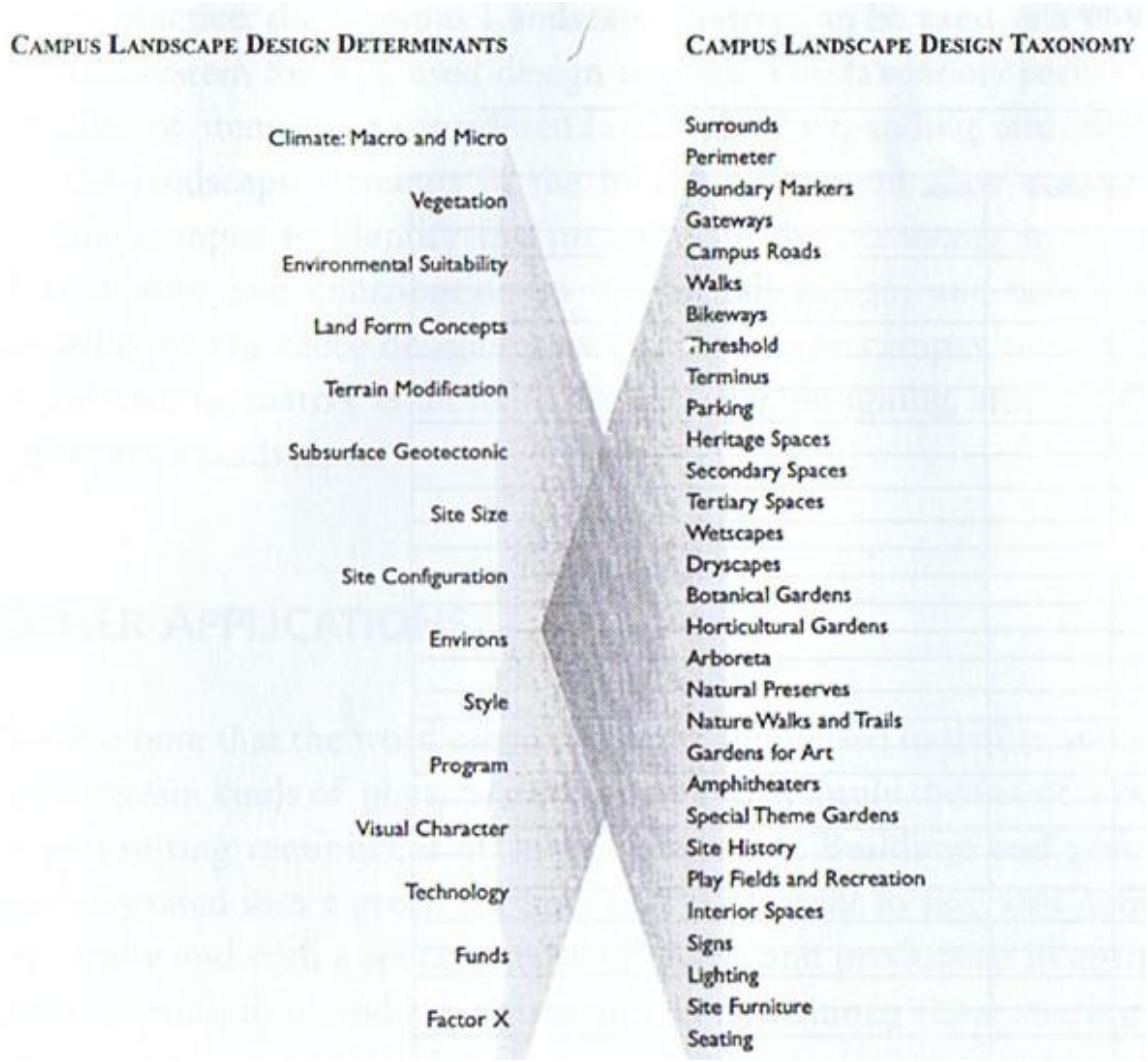

Figure 2.4 Impact Diagram / Design Determinants and Design Taxonomy Components. *Source:* Dober 2000, xxi.

2.2.2 Pedagogy

One way to create a suitable learning environment is to incorporate sustainability into the design. Restoring land and creating woodland areas, for example, makes the user feel more connected to the natural world, while also demonstrating that the campus can act as a teaching tool to show students how we should treat the environment (Franklin 2003). Creating outdoor learning communities in universities is an effective approach to enhancing student engagement with the campus environment, and also encourages

students to interact more with the faculty, potentially prompting and improving their academic achievement (Kenney 2005). In 1983, a study was conducted which asked students if they were interested in outdoor learning, and the researchers found that half the people who responded were interested either often or sometimes (Spooner 2008). This study suggests that an outdoor learning environment would help engage the interests of a large percentage of students.

When designing a suitable learning space, it is essential for designers to study and understand the behavioral aspects of the people who use that space, as well as the environmental concerns that may surround any learning space. Both of these factors work together to allow users to feel comfortable when using the space (Spooner 2008). Kenney (2005) described in his book, *Mission and Place*, that there are several factors which contribute to student and faculty engagement on any campus:

1. Well-defined pathways and entrances in and out of the campus provide a welcome feeling, and also allow campus users to feel safe and comfortable. This type of connectivity throughout the entire campus creates a positive image for students and teachers while contributing to the learning-oriented environment.
2. A diverse variety of outdoor learning spaces is a necessary element in order for the users to engage with the campus. This variety provides suitable options for users to interact with the different spaces. For example, some students prefer a quiet outdoor learning space, while some prefer to study with other activities surrounding him or her.

3. The landscape of the campus and its architecture should exist in harmony with the natural context of the surrounding neighborhood. Both of these factors reflect the characteristics of the region where they are located.
4. The existing outdoor natural environment should be incorporated into the learning space as much as possible. The presence of such an environment is vital to attract users to engage in the space.

The factors of both composition and configuration of the campus landscape affects the campus users' behavior. Therefore, it is significant for designers to understand how campuses function and continue to change, because this understanding will prove instrumental to the success of the campus (Spooner 2008).

2.2.3 Sustainability

Castaldi (1994) explained in his book, *Educational Facilities*, that architects require a great deal of land in order to create a well-designed campus space. Such a large space may contain many natural elements that can enhance both the teaching and learning atmosphere, and incorporating these natural elements into the design will allow students to feel more excited and inspired while within their learning environment.

Norton (2007) stated that "to be truly sustainable, today's universities…can no longer be just universities, but must transform themselves into sustainable communities" (Norton 2007, 37). This statement came through Norton's research using a Geographic Information System (GIS) mapping program to analyze the University of Michigan North Campus in terms of the sustainability concerns that surround the campus. He found that what makes a sustainable campus is not just understanding and appreciating the

economic, social, and environmental considerations that will work together to create a sustainable campus (Norton 2007).

Chapman (2006) explains that sustainable practices are essential elements that must be considered equally important as any other landscape elements adapted on university campuses. Chapman states that "it is estimated that the country will have to construct another 213 billion square feet of built space by the year 2030; 82 billion will be needed just to replace obsolete building space" (Chapman 2006, 188). The spaces designed in the future should be comfortable, safe, productive, and enjoyable, while also adapting to environmental challenges that we might face in the years to come.

Chapman (2006) listed several environmental strategies that contribute to the creation of a sustainable campus. He suggested adapting the design to work with the existing environmental conditions of any site, such as the area's native plants and local climate conditions. To cut down on energy consumption, he also suggested more effective use of outdoor lighting. To improve both the indoor and outdoor environments of the buildings, Chapman (2006) recommended the use of trees and other planning, but warns against the inclusion of high-maintenance lawns and plants. Finally Chapman (2006) suggested carefully-planned use of water resources to reduce pollution while decreasing the cost of heating and cooling.

Simpson (2003) recommends that more concern for adapting sustainability components, such as energy efficiency, is needed on campuses. Energy awareness is one of the central elements that will play a major role in changing the campus culture and building a new climate for conservation. To promote more awareness on this matter, campus planners need to be involved in adapting energy-efficient ideas; these ideas can

play a major role in creating new energy policies that university administrators need to make central to their mission statements.

2.2.4 Social Life

Urban designers need to understand the cultural and social sensitivity of a place in order to create a healthy environment that inspires and satisfies its users. This understanding will guide designers in their thinking about the city's cultural, physical and economical challenges, as well as how to deal with these challenges. The urban designer's challenge is to understand and encourage the public to take part in more economic activities in order to be more successful in their projects (Inam 2002).

William Whyte (2000), in the book *The Essential William H. Whyte*, studied how people interact with urban plazas by observing their movement through the spaces, investigating their backgrounds, their needs and demands, and what interests them in a specific place. He found that people are attracted by various elements such as water features, graphic sculptures, and statues. However, the main motivator of a space is the presence of other people.

Abu-Ghazzeh (1999) performed interviews with students at the University of Jordan. He explained that students require more outdoor spaces, especially near academic buildings, that have comfortable elements which provide for various activities such as studying, having a meal, or interacting with other students. Kenney (2005) stated that "The character of a place responds to the sensitivities of the people in the community" (Kenny 2005, 112). On any campus, an open space should have vital elements that attract people. These elements inspire curiosity about the area and encourage a welcoming

atmosphere. Designers need to understand the characteristics of the campus in order to provide physical qualities that will complement the culture of the campus environment.

Because people are attracted to a space by the presence of other people, as pointed out by William Whyte (2000), an outdoor space needs to provide elements that attract people to the area. In order to do so, a space should visually fulfill the users' needs, such as providing an area for studying or social interaction. Most importantly, the people need to feel that they are comfortable while using the space.

2.2.5 Precedents

2.2.5.1 Introduction

This section explores illustrates two nationally recognized residential campus courtyards for their successes. Stephen Epler Hall is nationally recognized for its storm-water design and has won several awards. The second project is Hassayampa Academic Village which has LEED Silver rating for using a selection of efficient material to reduce heat gain.

2.2.5.2 Stephen Epler Hall

In 2001, landscape architects from Mithun designed an educational residential courtyard in Portland State University. The goal of this courtyard is to educate and to serve the users' needs and demands.

Pennypacker (2008) described this courtyard as "a particularly engaging rainwater treatment and harvesting system" that is "found in an intimate plaza enclosed by Stephen Epler Hall and King Albert Hall" (Pennypacker 2008, 30). Pennypacker then goes on to describe how storm-water travels across the courtyard: "First rain descends from the roof of Epler Hall via downspouts that follow three of the building columns. At the bottom of

each downspout the rain disappears into a raised concrete basin filled with river rock" (Pennypacker 2008, 30). Figure 2.5 demonstrates Pennypacker's description of rainwater moving across the courtyard.

Figure 2.6 shows how people walking through the storm-water courtyard will notice that the water flows from the roofs of the buildings down to the river rock before it moves through scuppers at the bottom of each basin. The rainwater flow is then directed through the plaza into three separate runnels. Curious onlookers will find that the water will eventually flow to the courtyard planters. This project demonstrates a suitable way to treat storm-water, and also provides an example of how this treatment functions in a learning facility (Pennypacker 2008).

Figure 2.5 View of the rainwater trail from downspout to raised collection basin through scupper into granite-lined runnel. *Source:* Pennypacker 2008, 30.

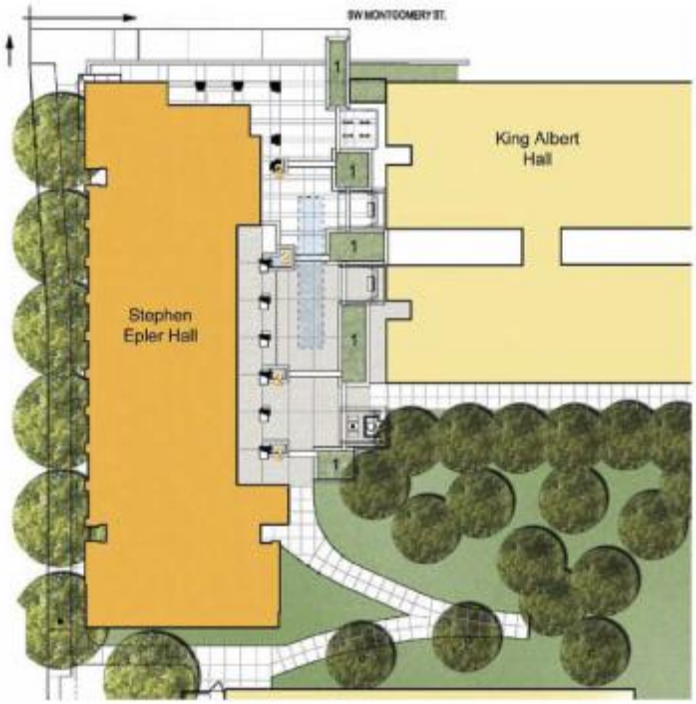

Figure 2.6 Stephen Epler Storm-water Courtyard plan. *Source:* Pennypacker 2008, 30.

This plan illustrates the way water moves across the courtyard through runnels from collection basins (2) to stepped biopaddies (1).

2.2.5.3 Hassayampa Academic Village

According to an article on the Green Dorm Database website, Arizona State University is one of many campuses in the United States that has adapted sustainable strategies to its campus. It contains nine buildings that have LEED Certification. Most of these buildings include "reflective roofs and paving materials, low-flow faucets and toilets, occupancy sensors, window shades, drought-resistant landscaping and large-scale recycling of construction waste" (Arizona State 2009).

Figure 2.7 Birdseye view of the Hassayampa Academic Village. *Source:* Joel Sanders. Reproduced by permission of Joel Sanders, Esto Photographics, (Mamaroneck, NY), © 2009 Esto Photographics.

Figure 2.7 shows an academic village at Arizona State University which was designed in 2006 by Machado and Silvetti Associates, an architecture and urban design firm. This village is located in the southeast side of the campus. The landscape courtyard was designed to address the climate and environmental challenges that the campus experiences. The project has LEED Silver certification for reducing heat gain and containing native landscaping, passive cooling, low-flow fixtures, and ample day-lighting.

Figure 2.8 Several photos of the space. *Source:* Joel Sanders.

2.3 Survey Methods

2.3.1 Survey Guidelines

There are several components the researcher needed to consider in order to prepare a suitable survey for respondents. The Tailored Design Method (TDM) is an educational procedure for researchers to better design surveys with various options for designing questions. Dillman (2009) explained that researchers need to consider several factors before they begin designing a survey. In order to gain the trust of the respondents, one of the factors listed by Dillman, the researcher needs to make the research look

important. To increase the benefits of the respondents, the researcher should do the following (Dillman 2009, 38):

1. Provide Information about the survey
2. Ask for help or advice
3. Show positive regard
4. Say thank you
5. Support group values
6. Give tangible rewards
7. Make the questionnaire interesting
8. Provide social validation
9. Inform people that opportunities to respond are limited

Babbie (2010) explained that the researcher needs to understand the importance of selecting appropriate methods for sending a survey questionnaire, through knowing which method the respondents feel comfortable with in order to answer the questions. There are several methods that Babbie suggested researchers should consider; some of these suggestions are (Babbie 2010, 284):

1. Use consistent wording between the invitation and the survey.
2. Use plain, simple language.
3. Offer to share selected results from the study with everyone who completes the survey.

2.3.2 Survey Designs

Dillman (2009) explained that there are several types of questions that researchers could use in a survey questionnaire, and two of these types of questions are:

1. Open-ended questions: The open-ended questions ask the respondents to provide descriptive information about the subject matter. It is the researcher's choice to provide the limitations of the answers.
2. Closed-ended Questions: The closed-ended questions ask the respondents to select one answer from several options for each question. Closed-ended questions may also ask for multiple answers to each question. In either option, the respondent cannot provide his own answer, unless the researcher provides an option for him to give his own descriptive answer. One specific type of closed-ended questions are nominal ranking questions, which measure a qualitative valuable. Nominal ranking-questions ask the respondent to rank an object according to a specific scale that the researcher has provided.

Forced-choice questions were found to be the preferable option for respondents. Dillman (2005) explained that this type of question "promote deeper processing of the question and response options and allows for finer differentiation of meaning for options marked negatively" (Dillman 2005, 14).

CHAPTER III

METHODOLOGY

3.1 Introduction

In order to discover the most important programmatic elements for residential campus courtyards, several sites were selected and observed to determine which programmatic elements were present on each site. The researcher had an informal discussion with each courtyard administrator to get information about the courtyard and to introduce his research.

The survey contains four parts; the first part requests the participants to provide brief information about themselves and the project that they were involved in. The second part asks questions about which potential design themes and programmatic elements are most important in creating a residential campus courtyard. The third part investigates which programmatic elements were or were not implemented on the courtyards that the administrators and designers were involved with. Finally, the fourth part asks the participants to add any comments if they wish. The discussion of this study was based on qualitative narrative because of the limited survey population.

Table 3.1 Research Area Information

Courtyard Name	Designer Name	Administrator Name	College Name / Location
The Ruby Courtyard	Robert E. Luke	Fred Mock	Mississippi State University Starkville, MS
The Residential Courtyard	Greg Narlock	Jeff MacManus	University of Mississippi Oxford, MS
The Yardley Courtyards	Kona Gray	Chandler E. Rozear	University of Florida Gainesville, FL
The Residential College I Courtyard	Michael Evans	Steve Waller	Louisiana State University Baton Rouge, LA

3.2 Survey Area and Population

This study explores several residential campus courtyards in the southeast United States. In order to prepare the survey questionnaire, the researcher visited each courtyard to objectively observe which programmatic elements were present on each site. Using the literature and site observations, the survey was designed and sent to the courtyard designers and administrators. When the researcher had informal discussions with the participants during each site visit, they were introduced to this research project and notified that they would receive an online link to the survey through email. The purpose of this survey was to determine which programmatic elements are the most important for designers and administrators in order to create a successful residential campus courtyard in the southeast United States.

Four courtyards were selected for this study; first, the Ruby Courtyard in Mississippi State University located in Starkville, Mississippi. Second, the Residential Courtyard in the University of Mississippi located in Oxford, Mississippi. Third, the

Yardley Courtyards at the University of Florida located in Gainesville, Florida. Fourth, the Residential College I Courtyard in Louisiana State University located in Baton Rouge, Louisiana. The following sections provide brief information about each site, as well as a list of the programmatic elements that were found on each site based on the researcher's observations.

3.2.1 MSU, The Ruby Courtyard

As shown in figure 3.1, the courtyard is located at the north side of the university's campus, between Ruby Lane and George Perry Street. Completed in 2005, the courtyard is surrounded by student housing units that are a short walk to the Sanderson Recreational Center and athletic facilities. Most of the users are students. The representative of the Ruby Courtyard was Fred Mock from Mississippi State University. Edward L. Blake, Jr, was the courtyard designer, but sadly during this research he passed away. Therefore the researcher contacted the lead firm for the design process, which was LPK Architects. Robert E. Luke was head of the design process as the principle in charge of Luke-Kaye Architects.

Table 3.2 Elements that were objectively observed in the Ruby Courtyard.

Program Element	Note
Energy Efficient Elements	None were seen on site.
Landscape Furniture	There were seating areas, trash cans, light units, barbecue grills, and bike racks. All material appears to be as standard manufactured items.
Native / Adaptive Plants	Trees, shrubs, and annuals were seen on site; some of which were adaptive to the region.
Outdoor Classrooms	None were seen on site, but the open space could support outdoor lectures.
Outdoor Dining Areas	None were seen on site.
Outdoor Laboratory	None were seen on site.
Pedestrian Areas	The site provides sidewalks for users to jog or walk.
Recreational Areas	Open space is available for recreational activities.
Safety Features	Sufficient lighting for visibility is available all around the site.
Shaded Areas	Several areas provide shade with canopy trees.
Special Elements	None were seen on site.
Stormwater Management Facilities	None were seen on site.
Studying and Socializing Areas	None were seen on site.
Water Efficient Elements	Irrigation spray heads were seen on site.
Other:	Not available.

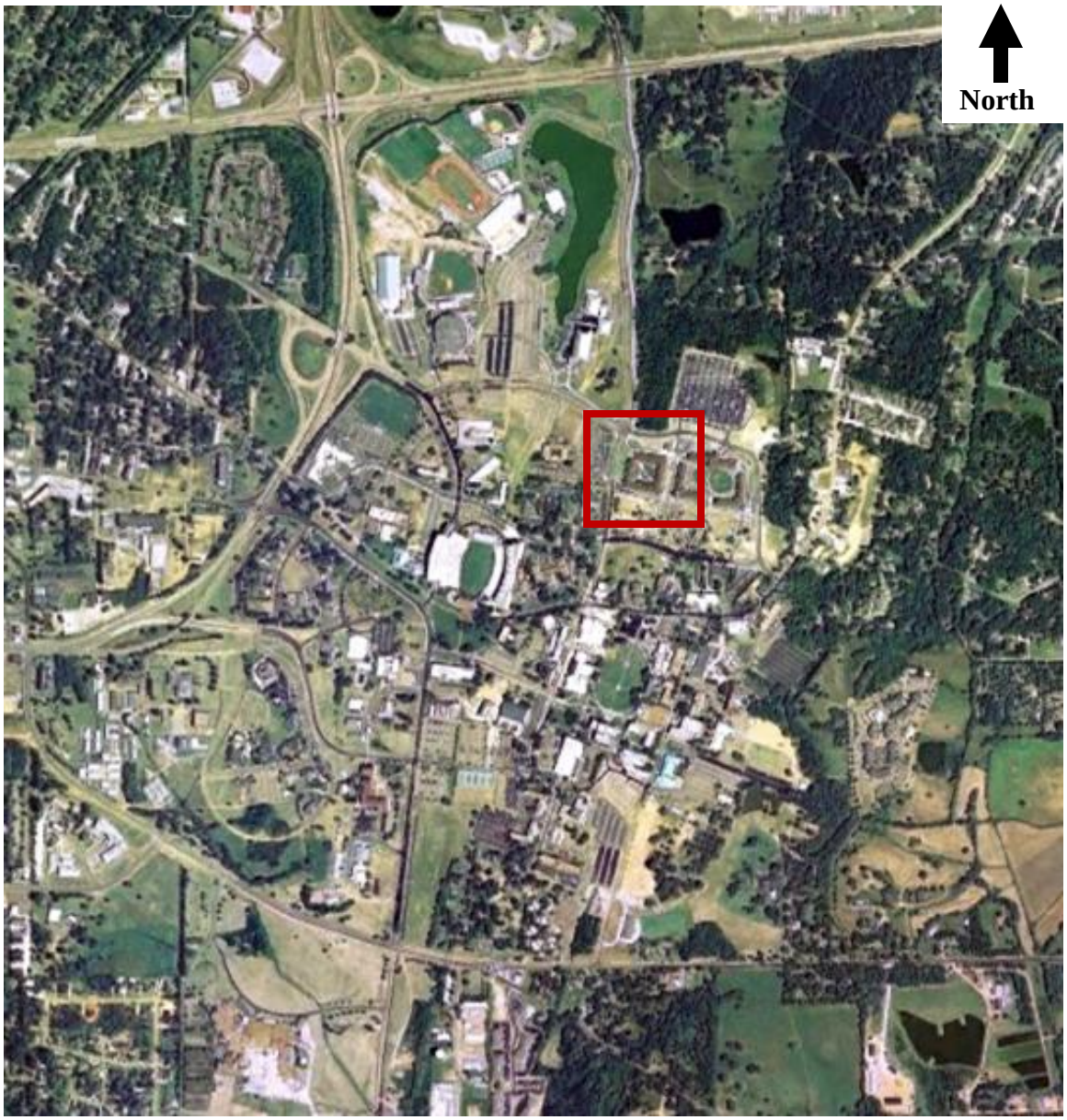

Figure 3.1 Mississippi State University Aerial Image. *Source:* Google Maps.

Please note that the selected area shows the location of the courtyard.

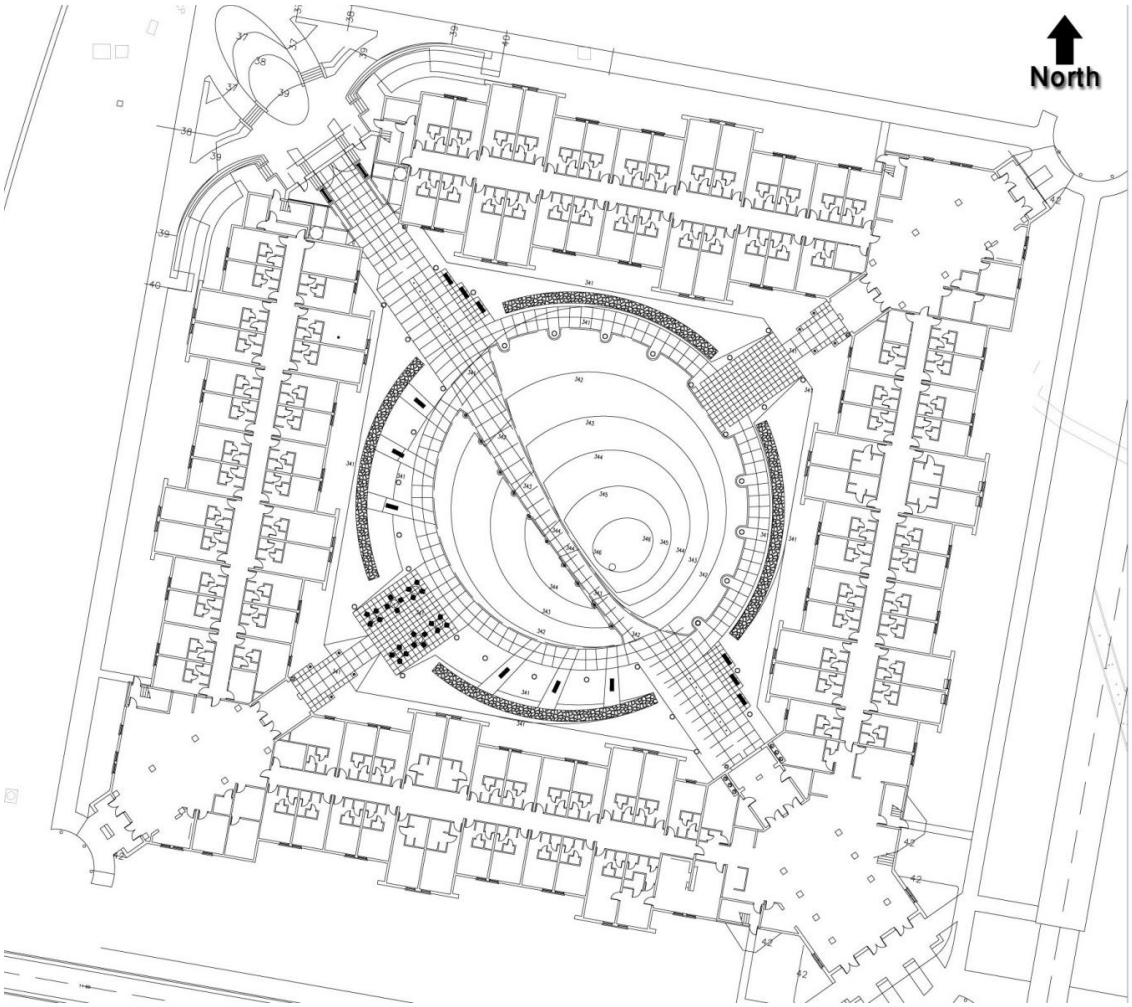

Figure 3.2 The schematic landscape plan of the Ruby Courtyard. *Source:* Robert E. Luke.

Figure 3.3 Birdseye view of the Ruby Courtyard. *Source:* Bing Maps.

Figure 3.4 Panoramic view of the Residential Courtyard. *Source:* Tariq Mahadin.

Please note that the image was stitched to create a panoramic view.

Figure 3.5 Panoramic view of the Ruby Courtyard. *Source:* Tariq Mahadin. Please note that the image was stitched to create a panoramic view.

Figure 3.6 Seating Area of Ruby Courtyard. *Source:* Tariq Mahadin

3.2.2 Ole Miss, The Residential Courtyard

Shown in figure 3.7, this courtyard is located at the north side of the university's campus, between the Old Law School building and the Power Plant building. It was completed in 2009 and most of the users are students. The representative of the Residential Courtyard was Jeff McManus, University of Mississippi Director of Landscape Services for the Ole Miss campus. Greg Narlock of Douglass Farr Lemons Architecture and Engineers was the project manager and part of the design team.

Table 3.3 Elements that were objectively observed in the Residential Courtyard.

Program Element	Note
Energy Efficient Elements	None were seen on site.
Landscape Furniture	There were trash cans and light units. All material appeared to be as standard catalog items.
Native / Adaptive Plants	Trees, shrubs, annuals were seen on site; they appeared adaptive to the region.
Outdoor Classrooms	None were seen on site, but the open space could support outdoor lectures.
Outdoor Dining Areas	Several spaces could be considered as dining areas.
Outdoor Laboratory	None were seen on site.
Pedestrian Areas	Most of the site is paved; it's not possible for users to jog around it.
Recreational Areas	Open space is available for recreational activities.
Safety Features	Sufficient lighting for visibility is available all around the site.
Shaded Areas	None were seen on site.
Special Elements	Elevated stone platform was implemented as a stage / seating element.
Storm-Water Management Facilities	Drains were seen on site.
Studying and Socializing Areas	None were seen on site.
Water Efficient Elements	Irrigation spray heads were seen on site.
Other:	Not available.

Figure 3.7 University of Mississippi Aerial Image, *Source:* Google Maps.

Please note that the selected area shows the location of the courtyard.

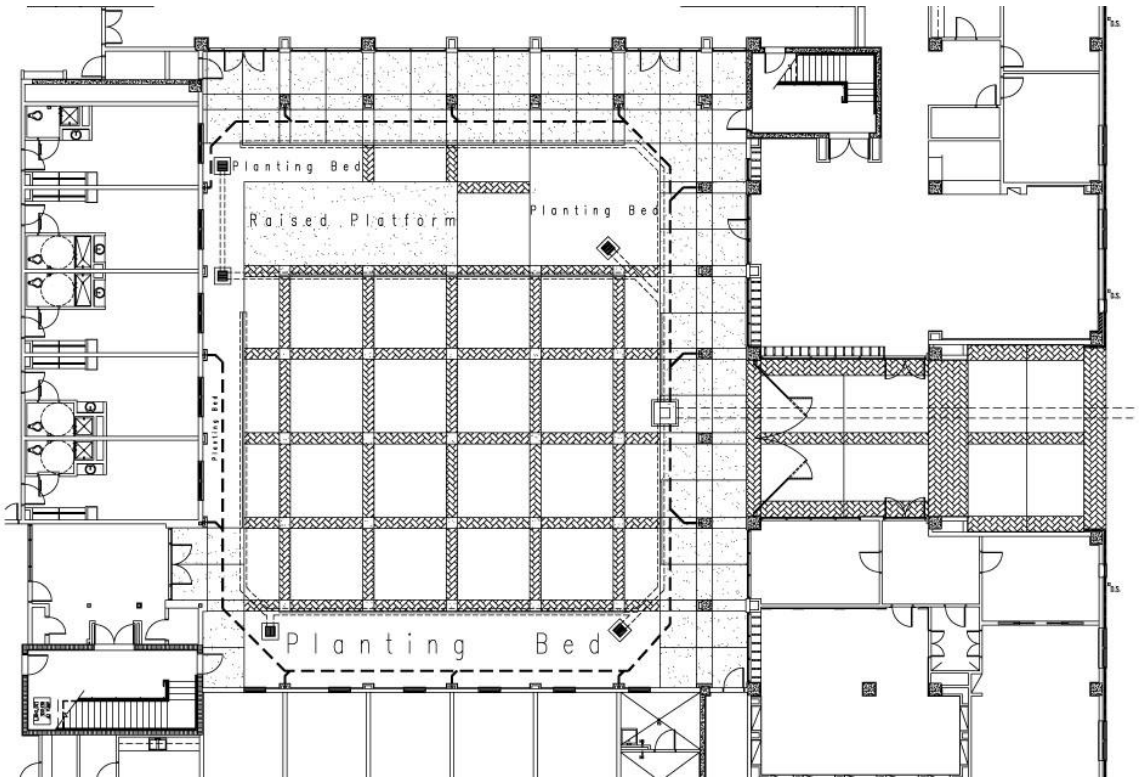

Figure 3.8 The schematic landscape plan of the Residential Courtyard. *Source:* Greg Narlock.

Reproduced by permission of Greg Narlock, Cooke Douglass Farr Lemons Architects and Engineers PA, (Jackson, MS), © 2005–11 Cooke Douglass Farr Lemons.

Figure 3.9 Panoramic view of the Residential Courtyard. *Source:* Tariq Mahadin.

Please note that the image was stitched to create a panoramic view.

Figure 3.10 A photo of the Residential Courtyard taken from the third floor. *Source:* Tariq Mahadin.

Figure 3.11 Isometric view of the Residential Courtyard. *Source:* Tariq Mahadin.

3.2.3 UF, The Yardley Courtyards

As shown in figure 3.12, the courtyard is located at the north side of the university's campus, between Buckman Drive and Fletcher Drive. This courtyard was funded by alumni Herb and Catherine Yardley, and completed in 2003. The courtyard is surrounded by student housing units, an academic advising center, and an academic classroom building. Most of the users are students, faculty, and alumni. The representative of the Yardley Courtyards was Chandler E. Rozear, University of Florida project manager. Kona Gray, designer from EDSA, was the designer and project manager of the site.

Table 3.4 Elements that were objectively observed in the Yardley Courtyards.

Program Element	Note
Energy Efficient Elements	None were seen on site.
Landscape Furniture	There were seating areas, benches, trash cans, light units, and bike racks. All material appears to be as standard manufactured items.
Native / Adaptive Plants	Trees, shrubs, annuals were seen on site; they appeared adaptive to the region.
Outdoor Classrooms	None were seen on site, but several open spaces could hold outdoor lectures.
Outdoor Dining Areas	Several spaces could be considered as dining areas.
Outdoor Laboratory	None were seen on site.
Pedestrian Areas	The site is provided with sidewalks for users to jog or walk.
Recreational Areas	None were seen on site.
Safety Features	Sufficient lighting for visibility is available all around the site.
Shaded Areas	Several places had shaded areas; most were covered with shade trees.
Special Elements	Water feature and memorial wall were designed on site.
Storm-Water Management Facilities	None were seen on site.
Studying and Socializing Areas	Several places were provided space for the users to study and socialize.
Water Efficient Elements	Irrigation spray heads were seen on site.
Other:	Not available.

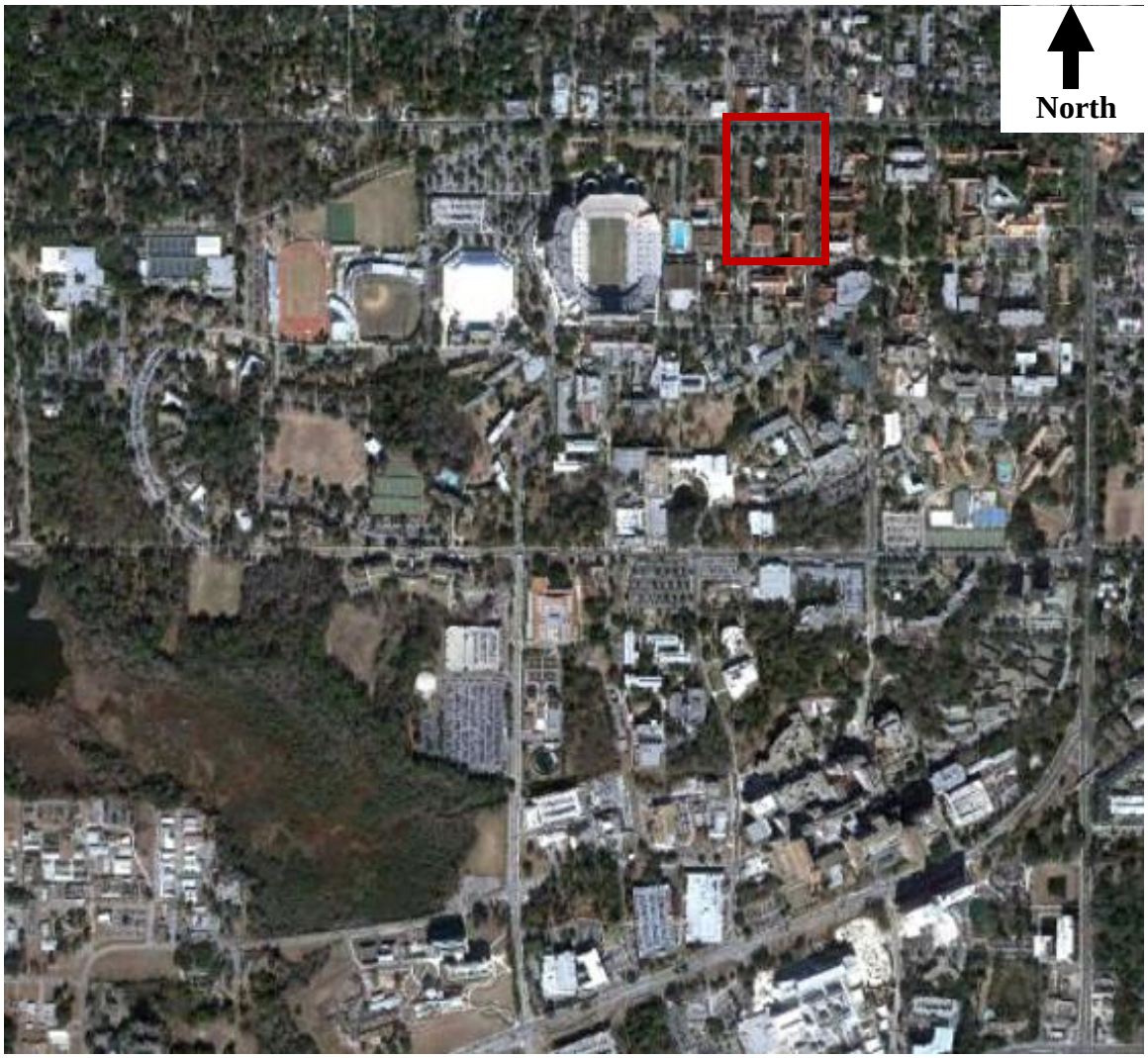

Figure 3.12 University of Florida Aerial Image. *Source:* Google Maps.

Please note that the selected area shows the location of the courtyard.

Figure 3.13 Aerial Image of the Yardley Courtyard. *Source:* Google Maps.

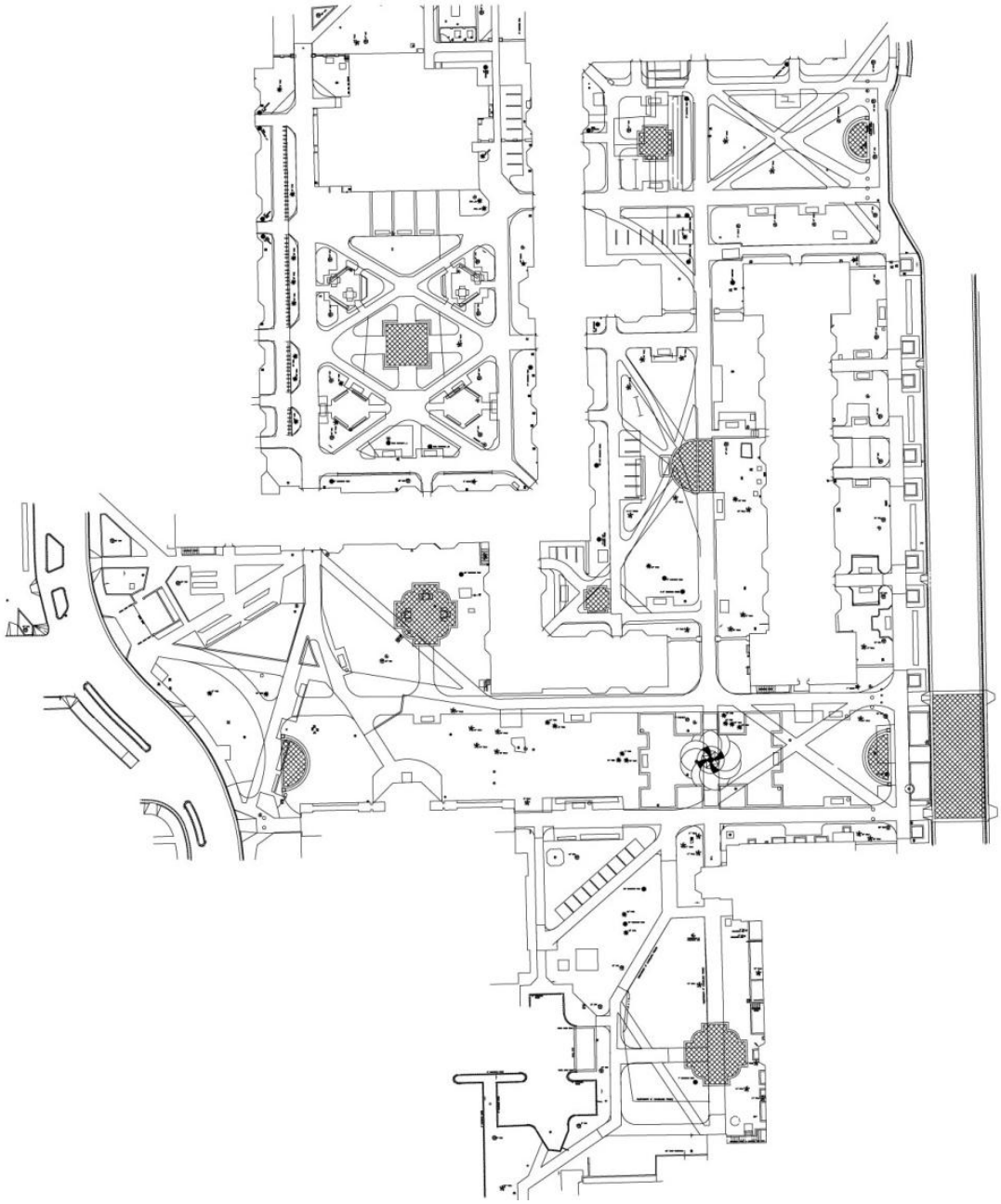

Figure 3.14 The schematic landscape plan of the Yardley Courtyards. *Source:* Kona Gray.

Figure 3.15 Birdseye view of the Yardley Courtyards. *Source:* Bing Maps.

Figure 3.16 Panoramic view of a seating area at the Yardley Courtyard. *Source:* Tariq Mahadin.

Please note that the image was stitched to create a panoramic view.

Figure 3.17 Photo of the water feature in the Yardley Courtyards. *Source:* Tariq Mahadin

Figure 3.18 Photo of a shaded area with seating at the Yardley Courtyards. *Source:* Tariq Mahadin.

3.2.4 LSU, The Residential College I Courtyard

As shown in figure 3.19, the courtyard is located at the northeast side of the university's campus, between Mike Donahue Drive and Dalrymple Drive. Completed in 2008, the courtyard is surrounded by two student housing units. Most of the users are students and faculty. Steve Waller was the resident representative of the Residential College I Courtyard, and is the department director of residential life at Louisiana State University. Michael Evans was the design principal of the site, and is currently a designer for Hanbury Evans Wright Vlattas Architects and Planners.

Table 3.5 Elements that were objectively observed in The Residential College I Courtyard.

Program Element	Note
Energy Efficient Elements	None were seen on site.
Landscape Furniture	There were seating areas, trash cans, light units, and bike racks. All material appears to be as standard manufactured items. Some benches illustrate unique design.
Native / Adaptive Plants	Trees, shrubs, and annuals were seen on site.
Outdoor Classrooms	None were seen on site, but the open spaces area could support outdoor lectures.
Outdoor Dining Areas	Several spaces could be considered as dining areas.
Outdoor Laboratory	None were seen on site.
Pedestrian Areas	The site is provided with sidewalks for users to jog or walk.
Recreational Areas	Open space is available for recreational activities.
Safety Features	Sufficient lighting for visibility is available all around the site.
Shaded Areas	Several areas have shade areas covered with shade trees.

Table 3.5 Continued

Special Elements	None were seen on site.
Storm-Water Management Facilities	None were seen on site.
Studying and Socializing Areas	Several places were considered for the users to study and socialize.
Water Efficient Elements	Irrigation spray heads were seen on site.
Other:	Not available.

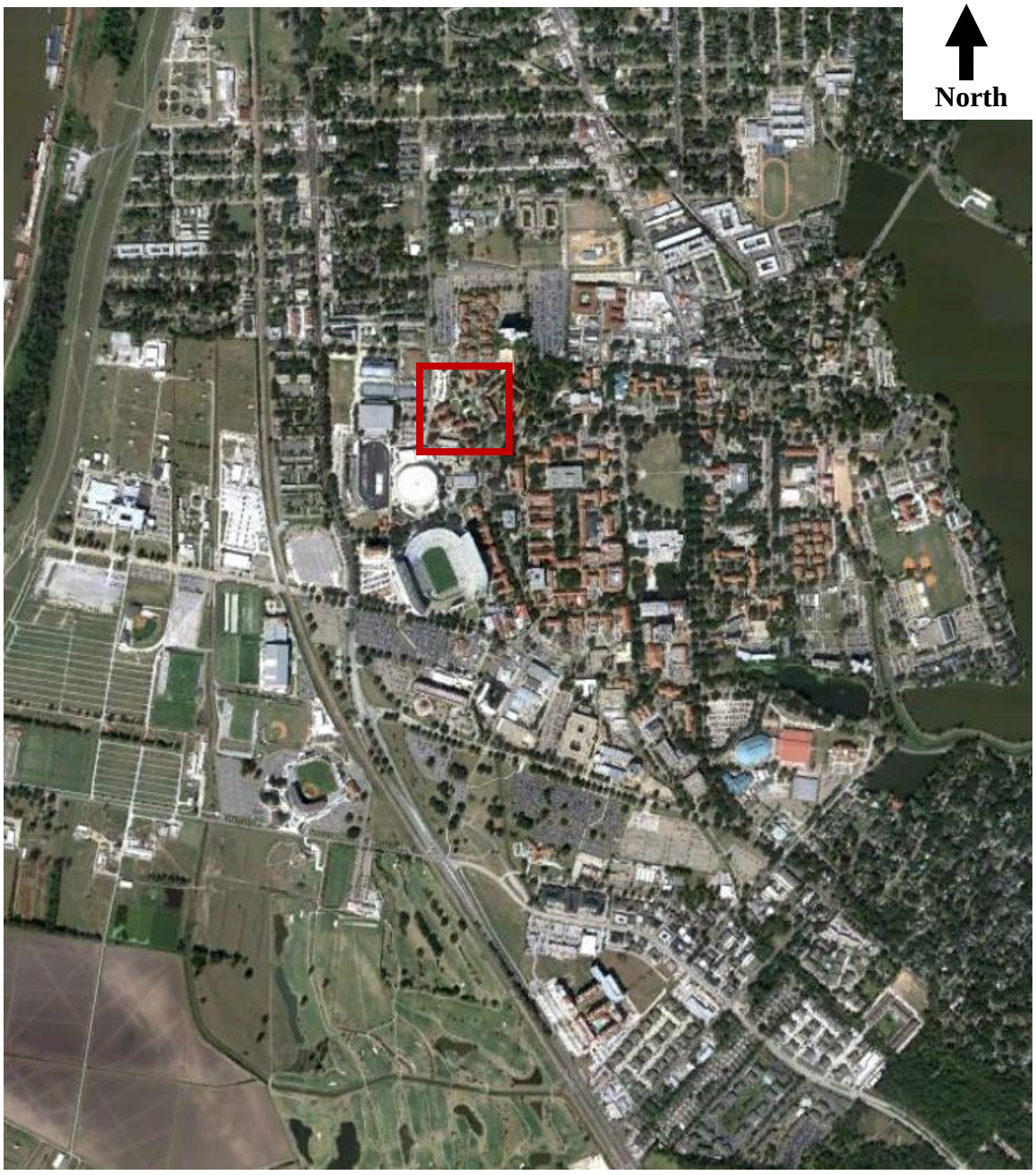

Figure 3.19 Louisiana State University Aerial Map. *Source:* Google Maps.

Please note that the selected area shows the location of the courtyard.

Figure 3.20 Aerial Image of the Residential College Courtyard. *Source:* Google Maps.

Figure 3.21 Panoramic view of the open space area at the Residential College One Courtyard. *Source:* Tariq Mahadin.

Please note that the image was stitched to create a panoramic view.

Figure 3.22 Seating benches at the Residential College I courtyard. *Source:* Tariq Mahadin.

Figure 3.23 One of the access points to the Residential College I Courtyard. *Source:* Tariq Mahadin.

Figure 3.24 Isometric view of the high graded area of the Residential College I Courtyard from the east side. *Source:* Tariq Mahadin.

3.3 Survey Organization

The survey was based on Dillman's (2009) book *Internet, Mail, and Mixed-Mode Surveys*, which provided guidelines that researchers need to implement in order to make sure their survey responds well to their participants. These guidelines are (Dillman's 2009, 105-106):

1. Make sure the question applies to the respondent.
2. Make sure the question is technically accurate.
3. Ask one question at a time.
4. Use simple and familiar words.
5. Use specific and concrete words to specify the concepts clearly.
6. Use as few words as possible to pose the question.
7. Use complete sentences with simple sentence structures.

8. Make sure “yes” means yes and “no” means no.
9. Be sure the question specifies the response task.

The survey was designed by the researcher through Online Survey Software called Fluid Surveys. It consists of five pages, the first of which contains the following information:

1. Survey name.
2. The survey consists of 27 concise questions.
3. The survey will take approximately 20-30 minutes to complete.
4. Respondents have the option to save their responses if they are unable to complete the survey in the first setting.
5. The information and responses will be linked to the respondents’ identity.
6. Results of the research are available upon request at the end of the survey.
7. Contact information of the Office of Regulatory Compliance at Mississippi State University.
8. Contact information of the researcher and his advisor.

After reading the welcome page, the participants could begin answering the questions. On the second, third, and fourth pages, respondents were requested to answer all the questions, and they were not able to proceed to the next page until all questions were answered. On the final page, respondents had the option to answer the open-ended questions. At the end, a thank you note appears on the screen for the completing the survey.

3.4 Survey Design and Implementation

This section covers the detailed parts of the survey; these sections contain the following:

1. The demographics section requests the participant to answer several questions about their educational background and to give brief information about the project that they were involved with. This section requests the following:
    1) Respondent name
    2) Respondent's highest level of education
    3) Respondent's educational background
    4) Whether the respondent has a professional registration or license title; if so, he is requested to identify it.
    5) Respondent role related to the project.
    6) The budget of this project and how was it funded.
    7) Select several suggested individuals or groups that were involved during the program development/design process.
2. The classification section requests the respondents to rank proposed elements that the researcher suggested. This section requests the following:
    A. Ranking the proposed major design themes in terms of importance for developing the programmatic elements and site design. These elements are: aesthetics, social activities, student learning, and sustainability.
    B. Ranking proposed programmatic elements on a scale of 1-14 according to their level of consideration on the project. These elements are:

1) Energy Efficient Elements: Providing design concepts for reducing energy use, such as solar systems or efficient lighting.
2) Landscape Furniture: Providing seating areas, trash cans, light units, benches, etc.
3) Native /Adaptive Plants: Plants that are adapted to growing in the region without irrigation or fertilizers.
4) Outdoor Classrooms: Suitable places for users to hold classes.
5) Outdoor Dining Areas: Providing suitable facilities for users to dine outside.
6) Outdoor Laboratory: Intentionally providing elements that educate the users.
7) Pedestrian Walks: Providing sidewalks for users to recreationally jog or walk.
8) Recreational Areas: Providing places for physical activities such as volleyball, Frisbee, etc.
9) Safety Features: Providing sufficient lighting for visibility and/or other security systems.
10) Shaded Areas: Providing canopy trees, gazebos, etc.
11) Special Elements: Providing water features, sculptural figures, art work, murals, etc.
12) Storm-water Management Facilities: Managing storm-water quality and quantity on site.
13) Studying and Socializing Areas: Suitable places for users to study and socially interact.

14) Water Efficient Elements: Providing reuse or efficient irrigation.

3. The clarification section requests the respondents to answer yes or no to several questions, and also to select multiple choice options that explain their answers. This section then asks the respondent if the previous programmatic elements were or were not implemented and why. The respondents had several suggestions provided as reasons for their answers, and those suggestions are:
    1) Administration recommendation
    2) Aesthetics
    3) Budget
    4) Designer recommendation
    5) Environmental concerns
    6) Maintenance concerns
    7) Regulatory requirement
    8) Safety
    9) User needs
    10) Other, please specify. (This option is provided for the respondents to answer freely in a descriptive way.)
4. The final section asks the respondents if they would like to elaborate more on some issues related to the research area that they were involved with or on other subjects. This section requests the respondents to descriptively answer the following questions:
    1) Describe in the respondent's own words if the project that he was involved with has fulfilled his original expectations.

2) Describe in the respondent's own words whether the space that he was involved with has or has not been successful.
3) If there was anything that the respondent wishes to change, what would it be.
4) The fourth question notifies the respondent that he has reached the end of the survey, and if he wishes to have a copy of the survey results, he is requested to leave his email address. He is also given the opportunity to provide any further comments.

3.5 Survey Process and Analysis

The survey was supervised by the researcher's committee members, and was reviewed several times to ensure that its questions were suitable for the selected respondents. The survey respondents were advised that twenty to thirty minutes would be enough time to answer the questions, and they were also given the option to save their answers and continue at a later time if they preferred. The survey results were analyzed using a qualitative approach. Some parts of the results were analyzed by calculating the mean values in order to determine the overall rankings.

3.6 Limitations

This study had several limitations. The survey responses were based on respondents' memory and their opinions. A more complete analysis could be gained by interviewing each respondent in person to confirm their responses. Also, the outcome of the survey results were analyzed through a qualitative approach, because using a quantitative approach for eight participants cannot provide solid information with regard to ranking the programmatic elements.

The geographic research area was also limited, due to the researcher's ability to visit each site. Therefore, the researcher selected four universities that are geographically close to one another. Another reason for selecting the geographically limited area is that it enabled the researcher to visit and meet with each administrator. By doing this, the researcher was able to introduce each administrator to this study and explain the research process.

The survey was dispersed as an online interview survey. Participants could answer the questions anytime, in any place they wished, and they could also pause the survey, save their answers, and resume at any time. Although the time frame for responding to the questions was limited, everyone eventually responded.

CHAPTER IV

RESULTS

4.1 Introductions

This chapter presents the results of the survey. It is divided into the four sections from the survey itself. Eight people were selected to respond to the survey. The researcher emailed the online survey to each person selected, and they each completed the survey.

4.2 Demographic Section

Table 4.1 shows that four of the participants have backgrounds in architecture, two have civil and environmental engineering backgrounds, one is a landscape architect, and one is a landscape and ornamental horticulturist. Four of the participants have completed master's degrees, three hold bachelor's degrees, and one has an associate's degree. As shown in table 4.2, five of the participants have license titles, and the remaining three do not. Table 4.3 shows that each courtyard landscape design budget cost.

Table 4.1 Shows the educational background of the participants.

College Name / Location	Participant Name	Educational background
Mississippi State University Starkville, MS	Robert E. Luke	Bachelors in Architecture
	Fred Mock	Masters in Civil and Environmental Engineering
University of Florida Gainesville, FL	Kona Gray	Bachelors in Landscape Architecture
	Chandler E. Rozear	Bachelors in Architecture
University of Mississippi Oxford, MS	Greg Narlock	Associates Degree in Architecture
	Jeff MacManus	Bachelors in Landscape and Ornamental Horticulture
Louisiana State University Baton Rouge, LA	Michael Evans	Masters in Architecture
	Steve Waller	Masters in Civil and Environmental Engineering

Table 4.2 Indicates if the participants have a professional registration or license title, and also shows their role in the projects they were involved with.

College Name / Location	Participant Name	License and Title	Role
Mississippi State University Starkville, MS	Robert E. Luke	Yes / AIA	Designer
	Fred Mock	None	Administrator
University of Florida Gainesville, FL	Kona Gray	Yes / RLA	Designer
	Chandler E. Rozear	Yes / AIA	Administrator
University of Mississippi Oxford, MS	Greg Narlock	None	Designer
	Jeff MacManus	None	Administrator
Louisiana State University Baton Rouge, LA	Michael Evans	Yes / AIA	Designer
	Steve Waller	Yes / IT	Administrator

Table 4.3 Shows the budget amount for each courtyard.

College Name / Location	Courtyard name	Budget Information
Mississippi State University Starkville, MS	Ruby Courtyard	20,000,000 US$
University of Florida Gainesville, FL	The Yardley Courtyards	500,000 US$
University of Mississippi Oxford, MS	The Residential Courtyard	25,000 US$
Louisiana State University Baton Rouge, LA	The Residential College I Courtyard	38,000,000 US$

Note that the MSU and LSU budget information includes the total cost of designing and building the entire residential facility.

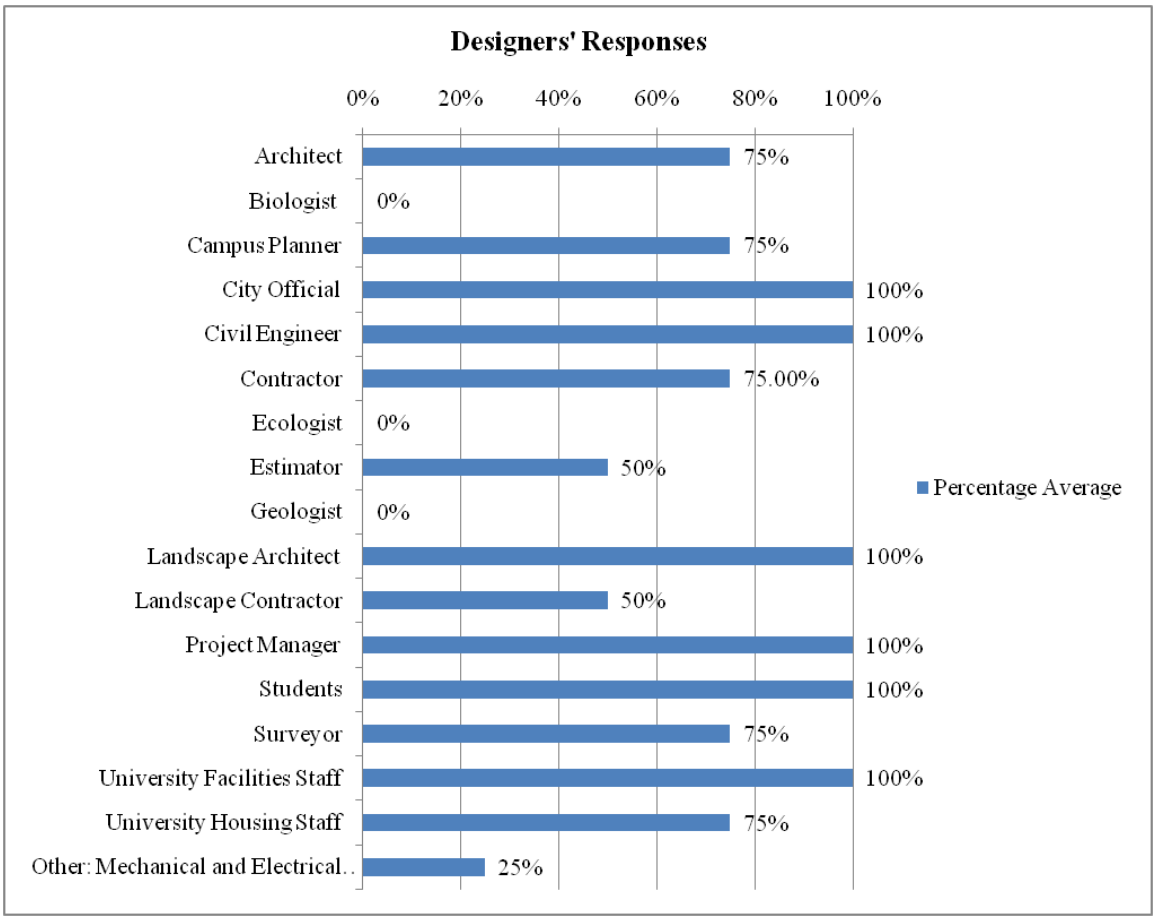

Figure 4.1 This table shows the individuals or groups that were involved with the program development based on the designers' responses.

The designers indicated that architects, campus planners, surveyors and university housing staff had a (75%) level of involvement. Figure 4.1 shows that there was a high number of city officials, civil engineers, landscape architects, project managers, students, and university facilities staff with a (100%) level of involvement. The designers also selected estimators and landscape contractors as having medium (50%) level of involvement. Mechanical and electrical engineers had a low level of involvement at (25%). Biologists, ecologists, or geologists were not involved.

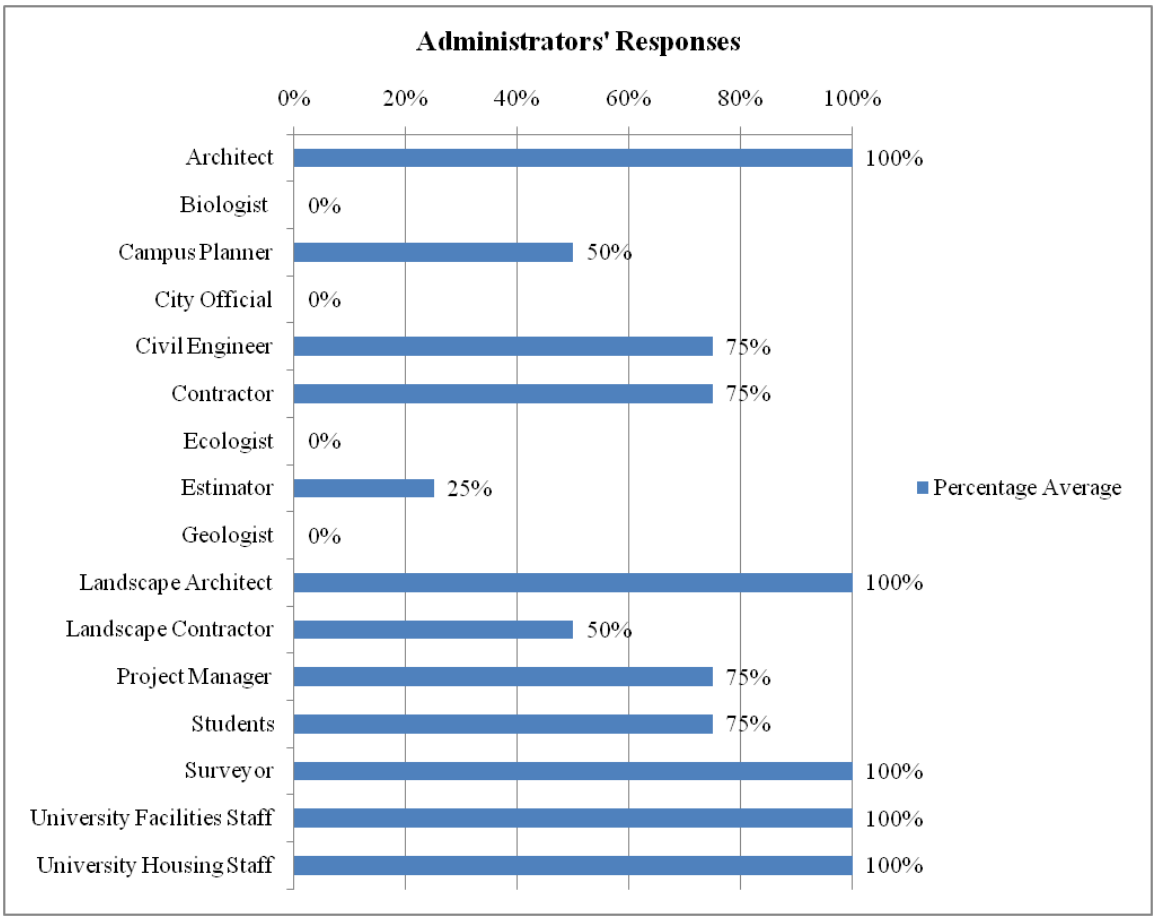

Figure 4.2 This table shows the individuals or groups that were involved with the program development based on the administrators' responses.

The administrators indicated that civil engineers, contractors, project managers, and students had a (75%) level of involvement. Figure 4.2 shows that there was a high involvement of architects, landscape architects, surveyors, university facilities staff, and university housing staff with a (100%) level of involvement. They also indicated that campus planners and landscape contractors had a medium level of involvement at (50%). Estimators had a low level of involvement at (25%). Finally, there was no involvement of biologists, city officials, ecologists, or geologists.

4.3 Classification Section

This section involves two questions, the first of which requests the participants to rank four design themes on a scale of 1 to 4, with 1 as most important and 4 as least important. Figure 4.3 shows the designers' responses, and Figure 4.4 shows the administrators' responses.

Based on the average ranking of the designers' responses, figure 4.5 shows that aesthetics, social activities and student learning are the most important elements, while sustainability is the least important.

Figure 4.6 shows the average ranking of the administrators' responses, and illustrates that aesthetics and social activities are the most important elements, while sustainability and student leaning are the least important.

The second question of this section requests the participants to rank the programmatic elements on a scale from 1 to 14, with 1 as most important and 14 as least important. Figure 4.7 shows the designers' responses, and figure 4.8 shows the administrators' responses.

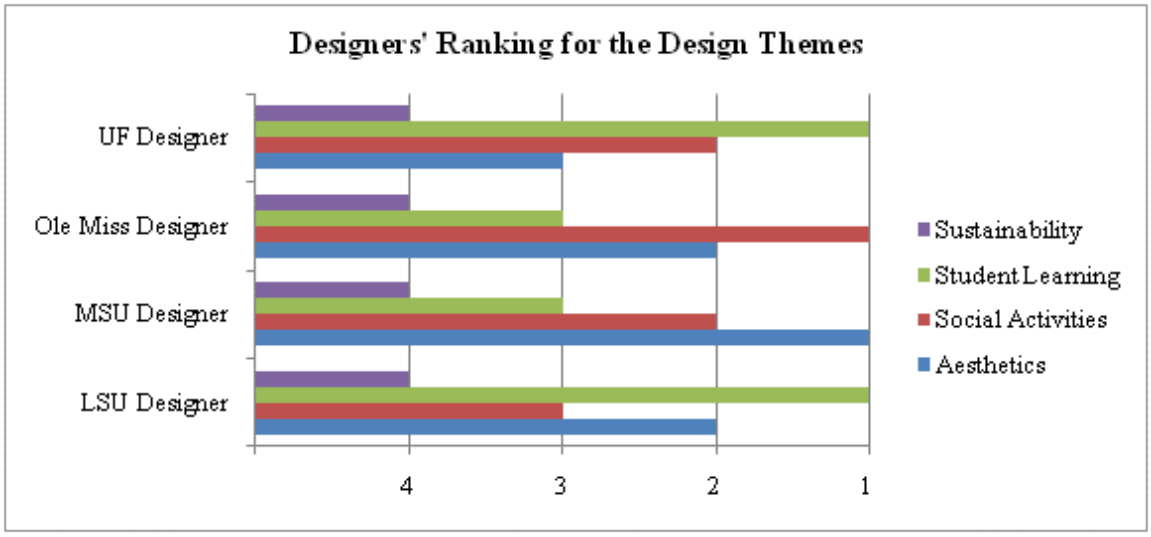

Figure 4.3 The ranking of the major design themes from the designers' perspectives.

Please note that 1 indicates the most important element, while 4 indicates the least important element.

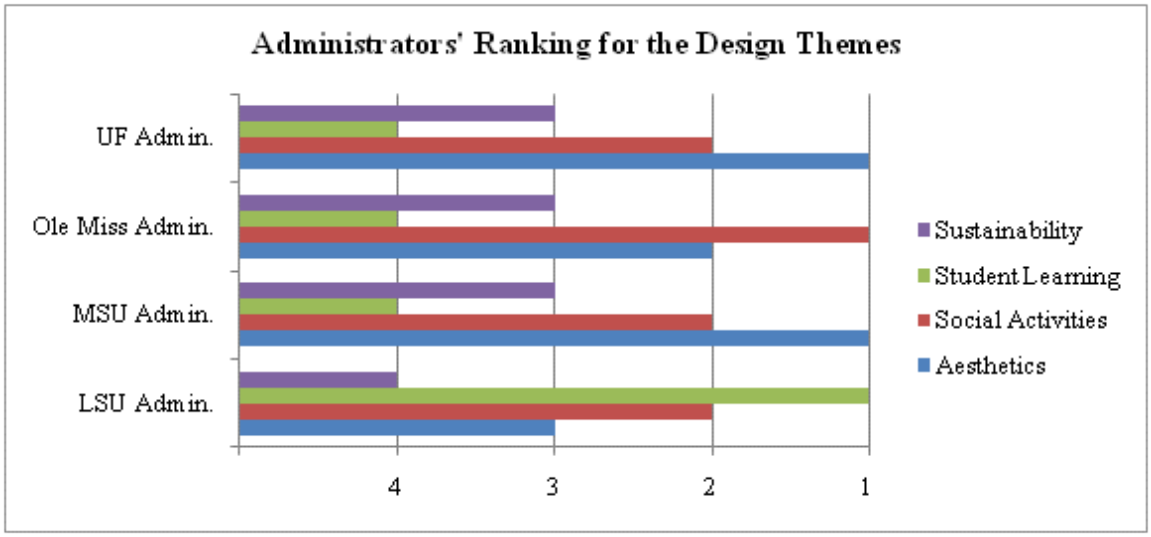

Figure 4.4 The ranking of the major design themes from the administrators' perspectives.

Please note that 1 indicates the most important element, while 4 indicates the least important element.

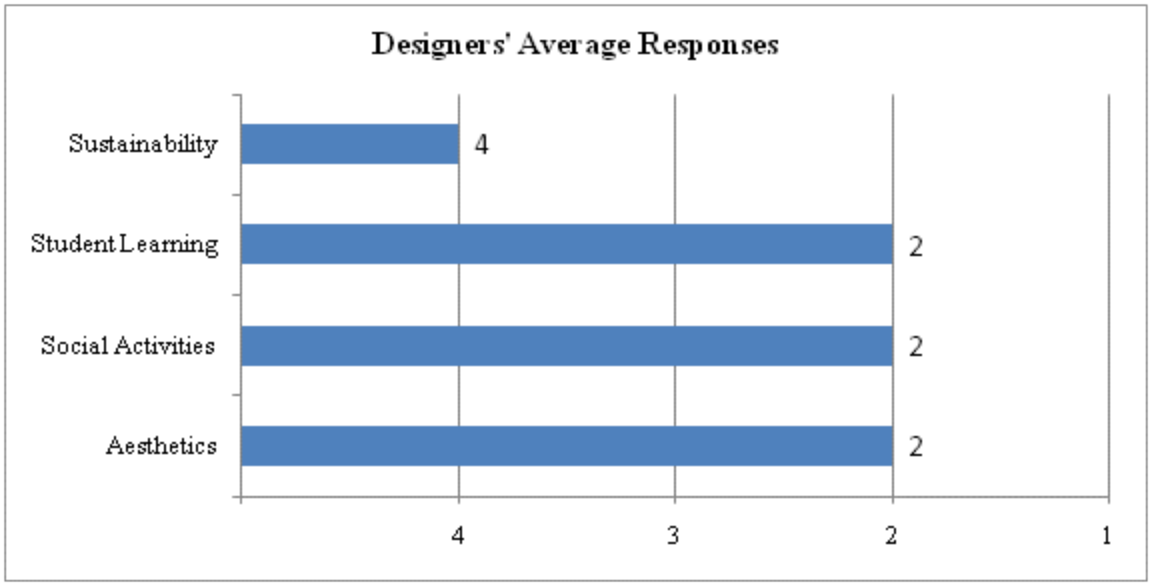

Figure 4.5 Shows the average ranking of the design themes from the designers' perspectives.

Please note that 1 indicates the most important element, while 4 indicates the least important element.

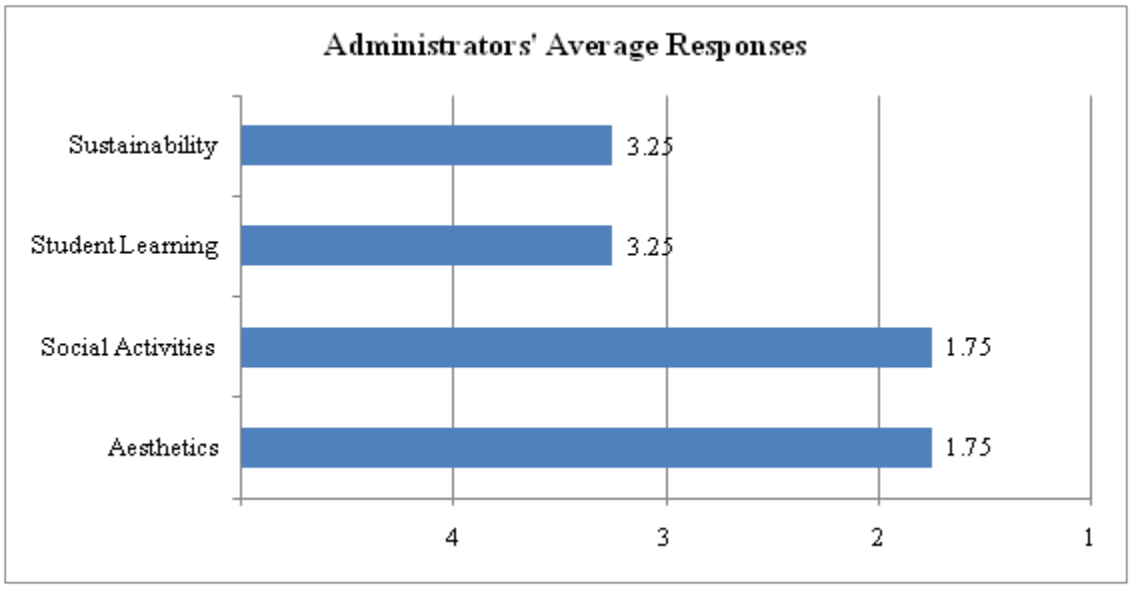

Figure 4.6 Shows the average ranking of the design themes from the administrators' perspectives.

Please note that 1 indicates the most important element, while 4 indicates the least important element.

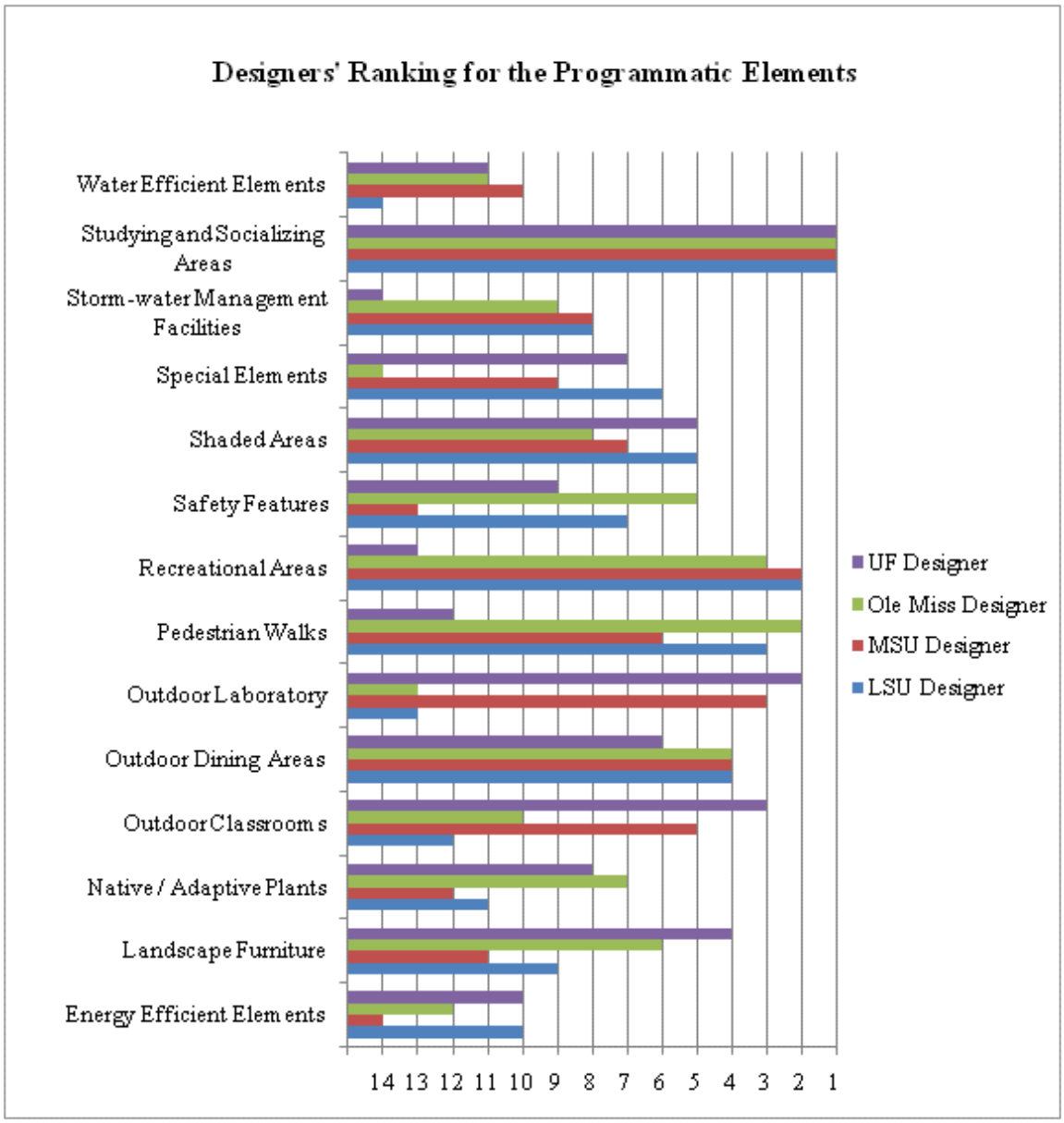

Figure 4.7 The ranking of the programmatic elements from the designers' perspectives.

Please note that number 1 indicates the most important element, while number 14 represents the least important element.

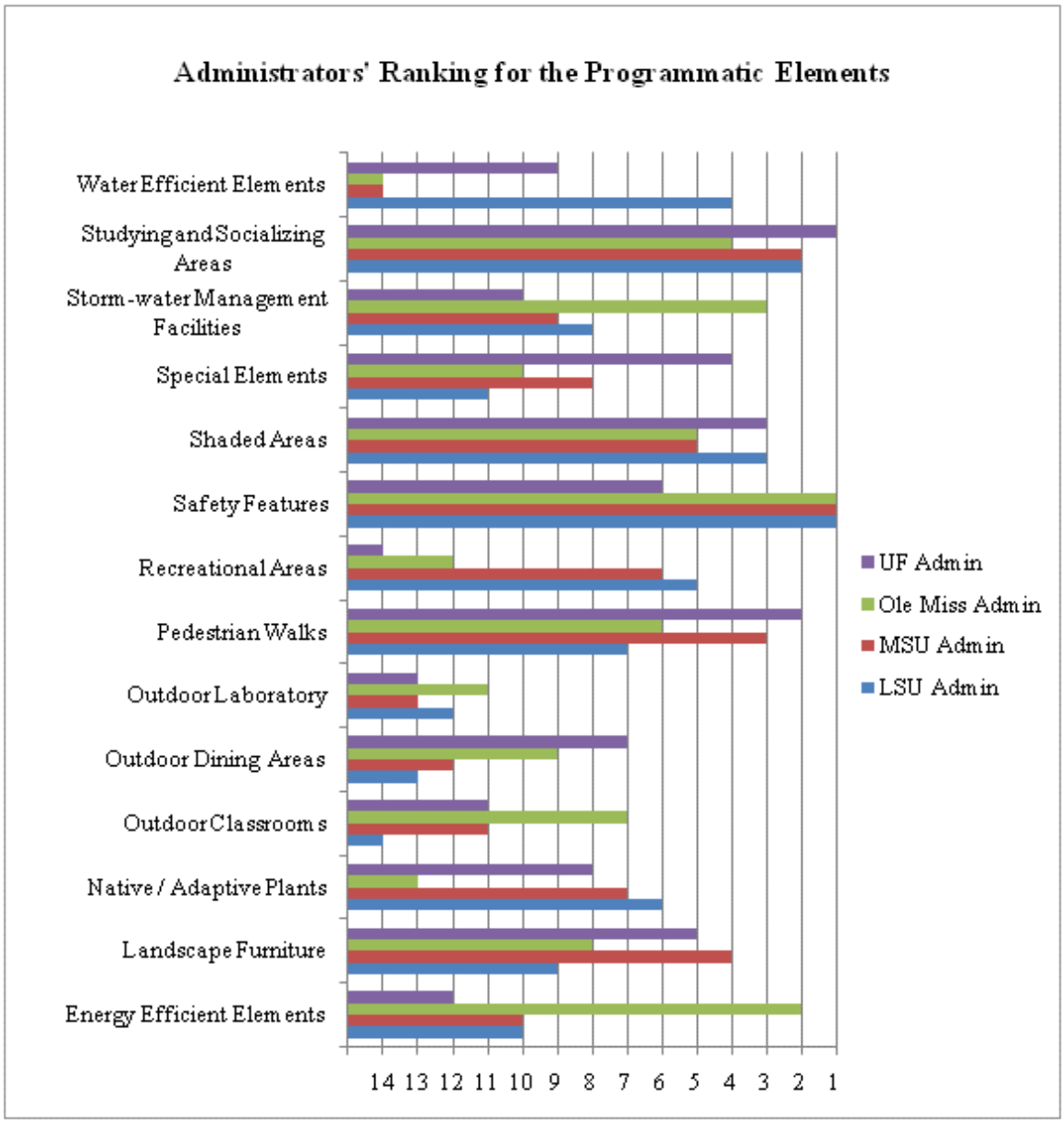

Figure 4.8 The ranking of the programmatic elements from the administrators' perspectives.

Please note that number 1 indicates the most important element, while number 14 represents the least important element.

4.4 Clarification Section

This section consists of fourteen questions requesting participants to indicate whether or not each programmatic element was implemented on site and why. Tables 4.4,

4.5, 4.6, and 4.7 show the participants' responses and the courtyards they were involved with. To learn more about why each element was or was not implemented, please see the appendix.

Table 4.4 The Ruby Courtyard designer and administrator indicate which elements were implemented on site.

Program Element	Designer	**Administrator**
Energy Efficient Elements	Yes	No
Landscape Furniture	Yes	Yes
Native / Adaptive Plants	Yes	No
Outdoor Classrooms	Yes	No
Outdoor Dining Areas	Yes	No
Outdoor Laboratory	Yes	No
Pedestrian Walks	Yes	Yes
Recreational Areas	Yes	Yes
Safety Features	Yes	Yes
Shaded Areas	Yes	Yes
Special Elements	No	No
Storm-water Management Facilities	Yes	No
Studying and Socializing Areas	Yes	Yes
Water Efficient Elements	Yes	No

Note that the shaded areas highlight differing responses from the designer and administrator.

Table 4.5 The designer and administrator of Yardley Courtyards in the University of Florida indicate which elements were implemented on site.

Program Element	Designer	Administrator
Energy Efficient Elements	No	No
Landscape Furniture	Yes	Yes
Native / Adaptive Plants	Yes	Yes
Outdoor Classrooms	No	Yes
Outdoor Dining Areas	Yes	Yes
Outdoor Laboratory	No	Yes
Pedestrian Walks	Yes	Yes
Recreational Areas	No	No
Safety Features	Yes	Yes
Shaded Areas	Yes	Yes
Special Elements	Yes	Yes
Storm-water Management Facilities	Yes	Yes
Studying and Socializing Areas	Yes	Yes
Water Efficient Elements	Yes	Yes

Note that the shaded areas highlight differing responses from the designer and administrator.

Table 4.6 The designer and administrator of Residential Courtyard in the University of Mississippi indicate which elements were implemented on site.

Program Element	Designer	Administrator
Energy Efficient Elements	No	Yes
Landscape Furniture	Yes	Yes
Native / Adaptive Plants	Yes	No
Outdoor Classrooms	No	Yes
Outdoor Dining Areas	Yes	Yes
Outdoor Laboratory	No	Yes
Pedestrian Walks	Yes	Yes
Recreational Areas	Yes	No
Safety Features	Yes	Yes
Shaded Areas	Yes	No
Special Elements	No	Yes
Storm-water Management Facilities	No	Yes
Studying and Socializing Areas	Yes	Yes
Water Efficient Elements	No	No

Note that the shaded areas highlight differing responses from the designer and administrator.

Table 4.7 The designer and administrator of Residential College I in Louisiana State University indicate which elements were implemented on site.

Program Element	Designer	Administrator
Energy Efficient Elements	Yes	Yes
Landscape Furniture	Yes	Yes
Native / Adaptive Plants	Yes	Yes
Outdoor Classrooms	No	No
Outdoor Dining Areas	Yes	Yes
Outdoor Laboratory	No	No
Pedestrian Walks	Yes	Yes
Recreational Areas	Yes	Yes
Safety Features	Yes	Yes
Shaded Areas	Yes	Yes
Special Elements	Yes	Yes
Storm-water Management Facilities	No	Yes
Studying and Socializing Areas	Yes	Yes
Water Efficient Elements	No	No

Note that the shaded areas highlight differing responses from the designer and administrator.

4.5 Elaboration Section

This section is divided into four parts, and each part shows the courtyard designers' and administrators' responses to the open ended questions.

4.5.1 MSU, Ruby Courtyard

4.5.1.1 Designer Robert E. Luke

1. Please describe in your own words if this project has fulfilled your original expectations.

Overall the project was a success…the quality of the space, its scale and feel seem to be appropriate for the area. The minor change in grade or elevation creates a game with sight lines, perceived distance and scale that produce a positive effect. The landscape materials around the perimeter could be better but that is probably an installation issue. Over all I believe the courtyard is a major contributor to the success to the project.

2. Please describe in your own words whether you think this space has or has not been successful.

The space and the project are difficult to separate…the space itself that is defined by the walls of the building would not be successful without the design of the courtyard that we utilized.

3. If there was anything that you could have changed in the project, what would it be?

I would attempt to provide water as a design feature, this was discussed but the management had concerns with vandalism. Today with the use of cameras and exposure to quality design elements such as water I believe it could be managed.

4.5.1.2 Administrator Fred Mock

1. Please describe in your own words if this project has fulfilled your original expectations.

Yes. We did consider water features but because of safety and maintenance concerns we decided not to go with one. I still think this was the correct decision.

2. Please describe in your own words whether you think this space has or has not been successful.

It has been successful. I routinely observe students use the courtyard for reading/study, conversation, sunbathing, frisbee, grilling and small group events.

3. If there was anything that you could have changed in the project, what would it be?

Would change some of the outdoor seating areas - instead of several one bench areas, would have had more multi-bench areas.

4.5.2 UF, Yardley Courtyards

4.5.2.1 Designer Kona Gray

1. Please describe in your own words if this project has fulfilled your original expectations.

Yes. This project was designed to reinvigorate the outdoor spaces for the historic residence halls and give alumni a place to gather. The design provided a place to meet and great, study and relax.

2. Please describe in your own words whether you think this space has or has not been successful.

Based on observation of the space after completion we feel it is very successful. Many students, faculty, staff and alumni enjoy the courtyard and it serves as a model for future courtyards.

3. If there was anything that you could have changed in the project, what would it be?

We feel that based on the budget and time the project could not have been changed and it was very successful.

4.5.2.2 Administrator Chandler E. Rozear

1. Please describe in your own words if this project has fulfilled your original expectations.

The project has grown in nicely. Other donations have allowed adjacent gardens to be established.

2. Please describe in your own words whether you think this space has or has not been successful.

When construction started, there was a letter in the student paper from someone complaining about the loss of campus green space. Little did they know what was coming. It went from a mostly bare dirt grass area to a lush and interesting environment.

3. If there was anything that you could have changed in the project, what would it be?

The contractor's superintendent was a very nice fellow but was way out of his league in dealing with decorative concrete.

4.5.3 Ole Miss, Residential College Courtyard

4.5.3.1 Designer Greg Narlock

1. Please describe in your own words if this project has fulfilled your original expectations.

The project has fulfilled the original expectations as it was delivered on time and on budget for one. Additionally, it meets the needs that the University wanted to provide for student housing/living needs and has created a more social and interactive schooling/living experience.

2. Please describe in your own words whether you think this space has or has not been successful.

We believe the project has been successful as we heard mostly positive feedback from the University. We have had very few follow ups since the initial building has opened nearly two years ago. Lastly, delivery of this project on time and on budget were two major hurdles that attributed to the success.

3. If there was anything that you could have changed in the project, what would it be?

Better coordination in the development stage between Architectural and mechanical engineering groups to coordinate items such as access panels. These could have been better integrated in the design process to have a more aesthetic outcome.

4.5.3.2 Administrator Jeff MacManus

1. Please describe in your own words if this project has fulfilled your original expectations.

Housing need for good social safe space and to hold small gatherings was met.

2. Please describe in your own words whether you think this space has or has not been successful.

Students seem to enjoy the area. It is used every day.

3. If there was anything that you could have changed in the project, what would it be?

Added more planted materials.

4.5.4 LSU, Residential College I Courtyard

4.5.4.1 Designer Michael Evans

1. Please describe in your own words if this project has fulfilled your original expectations.

Generally, yes. The two colleges are of a small scale, enclose private exterior space, and shape a larger public space.

2. Please describe in your own words whether you think this space has or has not been successful.

The two spaces are successful, but could be better!

3. If there was anything that you could have changed in the project, what would it be?

More shade in the private exterior spaces, better seating areas and furnishings.

4.5.4.2 Administrator Steve Waller

1. Please describe in your own words if this project has fulfilled your original expectations.

Yes, we are very pleased with the project.

2. Please describe in your own words whether you think this space has or has not been successful.

Use has not been at the level expected.

3. If there was anything that you could have changed in the project, what would it be?

Increased visibility.

CHAPTER V

DISCUSSION AND CONCLUSIONS

This chapter addresses the results of the survey, incorporates the information that was discussed in the literature, and presents the overall conclusions of this research. It is divided into four sections: discussion, summary, conclusions, and future research.

5.1 Discussion

5.1.1 Demographics

The demographics questions generally provided useful information on the backgrounds of the four designers and four administrators, their roles, as well as brief information about each courtyard they were involved with. Shown in table 4.1, the educational background questions indicate that four out of eight respondents have backgrounds in architecture. One respondent has a landscape architecture background, while another respondent have a background in landscape and ornamental horticulture. The two remaining respondents have backgrounds in civil and environmental engineering. This indicates that designers and administrators have divergent backgrounds which may influence how they approach a design process.

The final question of this section asked who was involved during the design process, and both designers and administrators indicated that there was a high level of involvement from the following people:

1. Architects

2. Civil Engineers
3. Contractors
4. Landscape Architects
5. Project Managers
6. Students
7. Surveyors
8. University Facilities Staff
9. University Housing Staff

However, there was a low level of involvement from city officials and landscape contractors, and according to both designers and administrators, there was no involvement from biologists, ecologists and geologists.

The survey also showed that there was high involvement of students. However, the results of that level of student involvement were not seen on some sites; the researcher's observations indicate that several courtyards do not provide seating or other opportunities for recreation, which would be assumed to be interests of students. Although most participants' responses indicated that students were involved during the design process, perhaps the designers and administrators were not able to incorporate all the student requests due to budget limitations of the project. The involvement of university facilities and housing staff was indicated as low, which is interesting since they would be the primary administrators of the space in the future.

5.1.2 Classifying the Elements

5.1.2.1 Ranking the Design Themes

The rankings of the design themes indicate that aesthetics, social activities, and student learning were the most important. From the administrators' perspectives, aesthetics and social activities were ranked more important than student learning and sustainability. Both designers and administrators agreed on the level of importance of aesthetics and social activities. This may indicate that during the design processes designers had to consider aesthetics, social activities and student learning as a larger priority than sustainability. As for administrators, this may indicate that they prioritize aesthetics and social activities over student learning and sustainability. In general both rankings of the designers and administrators indicate that they are roughly on the same page. To elaborate more on these conclusions, it is recommended to perform more research on these topics.

5.1.2.2 Ranking the Programmatic Elements

The provided list of programmatic elements is based on the thesis research question, and the average mean of the most important elements from the designers' perspectives are organized as follows:

1. Studying and Socializing Areas
2. Outdoor Dining Areas
3. Recreational Areas
4. Pedestrian Walks
5. Shaded Areas
6. Landscape Furniture

7. Outdoor Classrooms
8. Outdoor Laboratory
9. Safety Features
10. Special Elements
11. Native / Adaptive Plants
12. Storm-water Management Facilities
13. Energy Efficient Elements
14. Water Efficient Elements

The ranking shows that the designers did not consider sustainability components as important as student learning or aesthetics components. The most important elements were the studying and socializing areas, outdoor dining areas, and recreational areas. The sustainability elements were considered as least important out of all the program elements, and were ranked as the following: native/adaptive plants as 11, storm-water management facilities as 12, energy efficient elements as 13, and water efficient elements as number 14.

The average ranking of the most important elements from the administrators' perspectives are organized as the following:

1. Safety Features
2. Studying and Socializing Areas
3. Shaded Areas
4. Pedestrian Walks
5. Landscape Furniture
6. Storm-water Management Facilities
7. Special Elements

8. Energy Efficient Elements
9. Native / Adaptive Plants
10. Recreational Areas
11. Outdoor Dining Areas
12. Water Efficient Elements
13. Outdoor Classrooms
14. Outdoor Laboratory

This ranking shows that the administrators did consider some sustainability components in the average area of importance. Student learning and social activities were also ranked as having average importance. The safety features, studying and socializing areas, shaded areas, and pedestrian walks were ranked as the most important. The least important elements were the outdoor dining areas, water efficient elements, outdoor classrooms, and outdoor laboratory.

Figure 5.1 compares the separate rankings of the designers and administrators. Figure 5.2 shows which programmatic elements designers and administrators considered as equally or almost equally important; these elements are the following:

1. The studying/socializing area element is ranked by both the designers and administrators as number 1 (Note that the mean of this element from the administrators' perspectives is 2.25, which tied with safety features as number 1.)
2. The pedestrian walks element is ranked by both the designers and administrators as number 4.
3. The landscape furniture element is ranked from designers' perspectives as number 6, and by administrators as number 5.

4. The special elements component is ranked according to designers' perspectives as number 10, and by the administrators' perspectives as number 7.
5. The native/adaptive plants element is ranked from the designers' perspectives as number 11, and from the administrators' perspectives as number 9.

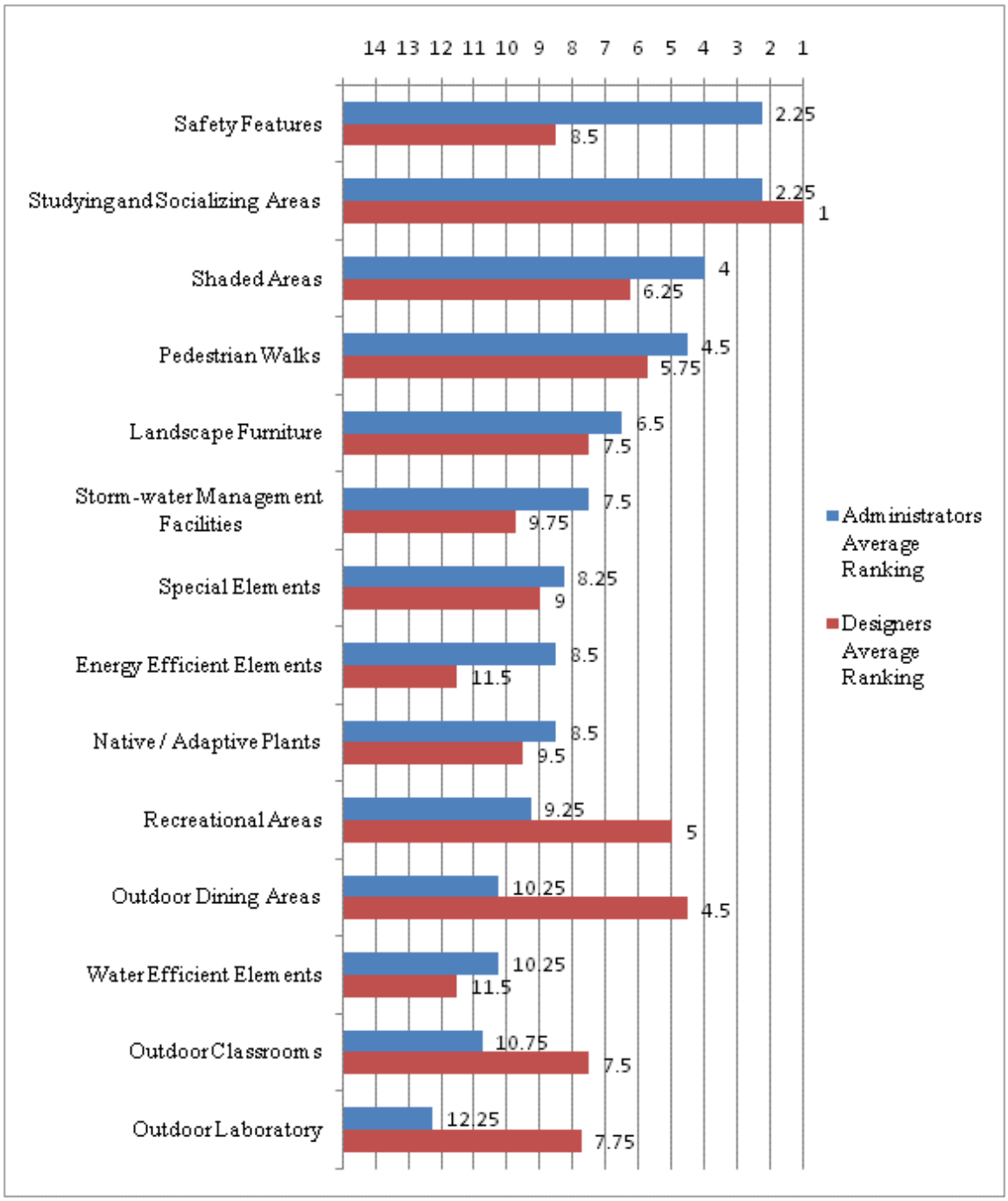

Figure 5.1 General Comparison between the Designers' and the Administrators' Ranking of the Programmatic Elements.

Please note that 1 indicates the most important element, while 14 represents the least important element.

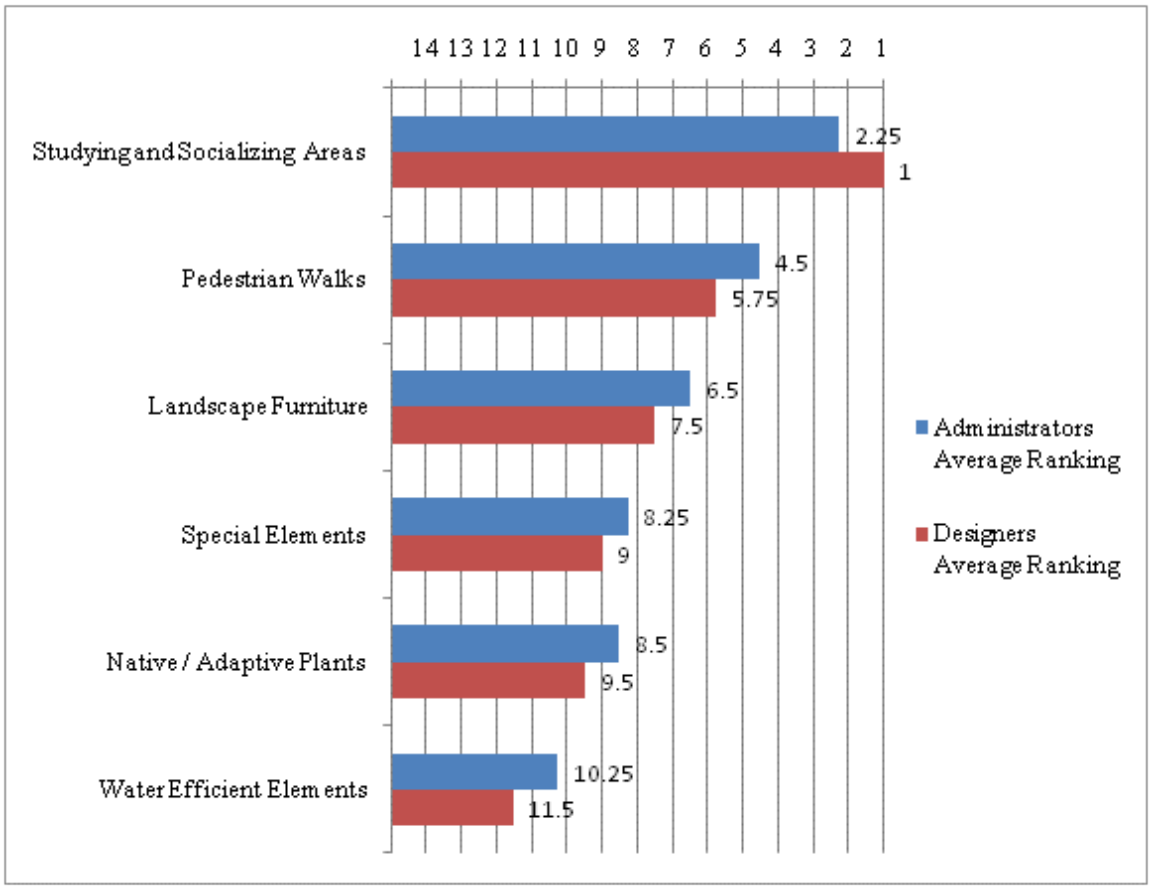

Figure 5.2 Designers' and Administrators' similar mean value rankings of the Programmatic Elements.

Please note that 1 indicates the most important element, while 14 represents the least important element.

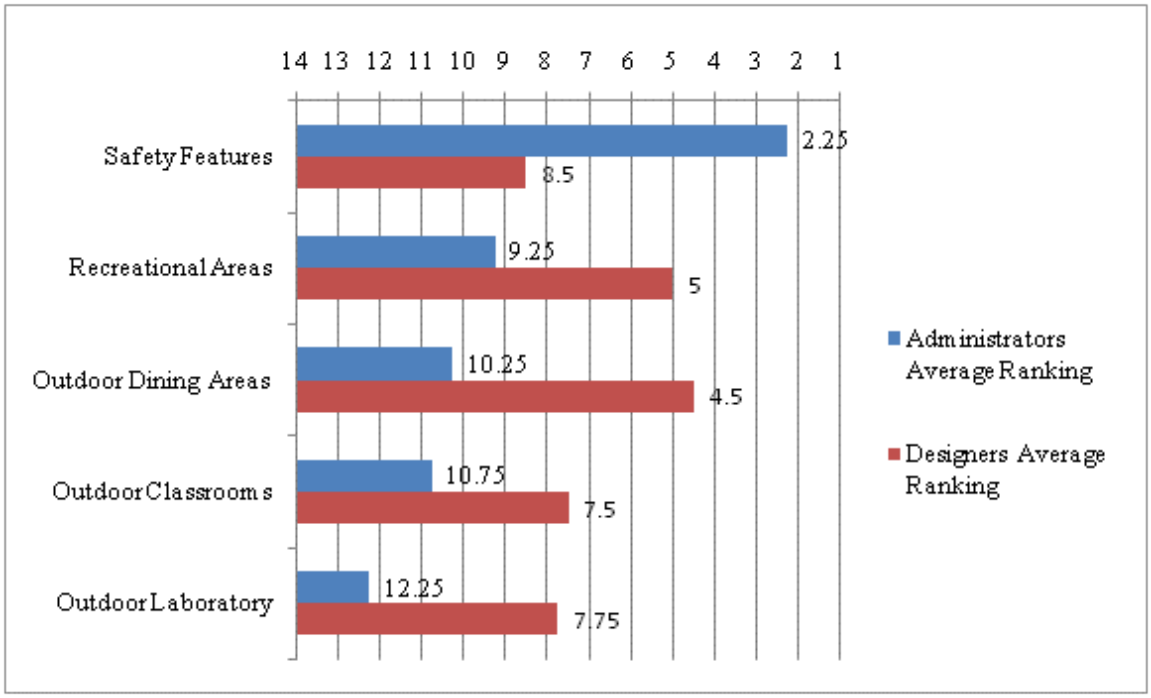

Figure 5.3 Designers' and Administrators' different mean value of rankings of the Programmatic Elements.

Please note that 1 indicates the most important element, while 14 represents the least important element.

Figure 5.3 shows which programmatic elements designers and administrators rank with high differences in mean value. These elements are the following:

1. Safety features are ranked from the designers' perspectives as number 9, and from the administrators' perspectives as number 1.
2. Recreational areas are ranked from the designers' perspectives as number 3, and from the administrators' perspectives as number 10.
3. Outdoor dining areas are ranked from the designers' perspectives as number 2, and from the administrators' perspectives as number 11.
4. Outdoor classrooms are ranked from the designers' perspectives as number 7, and from the administrators' perspectives as number 13.

5. Outdoor laboratories are ranked from the designers' perspectives as number 8, and from the administrators' perspectives as number 14.

While the designers and administrators collectively agreed that certain elements are important, both groups also agreed that certain elements are not important. For example, figure 5.2 shows that the water efficient element was not considered important by either group. This might relate to the climate of the region, or it may indicate that water efficiency was not important due to budget constraints.

Unlike the survey responses, the literature discusses sustainable components as fundamental elements in campus planning. Because the respondents did not rank the sustainability components as highly important in the survey, this may suggest that traditional program elements are still the most important.

Comparing the literature and survey responses, there are some responses to certain topics that highlight an obvious difference in priorities between the two groups. It appears that university administrators had certain goals that are high priorities from the university standpoint, while the designers brought their own ethics, priorities, and design intent to each site. For example, the Safety Features element, shown in figure 5.1, was ranked as the most important element from the administrators' standpoint, while designers ranked Safety Features as 8th in importance.

This difference suggests that the designers may need to reevaluate their priorities when presenting their project design proposals, perhaps by aligning their goals with the needs of the administrators; these steps may lead to a more successful design outcome.

5.1.3 Implementation

Each respondent provided valuable information on whether or not each programmatic element was implemented and why. Programmatic elements such as landscape furniture, native or adaptive plants, outdoor dining areas, pedestrian walks, safety features, shaded areas, studying/socializing area, and special elements were implemented in some courtyards. Respondents explained that the reasons for implementing these elements were related to administration and designer recommendation, aesthetics, regulatory requirement, safety, and user needs.

Programmatic elements that were not implemented in some courtyards are energy efficiency, outdoor classrooms, outdoor laboratory, recreational areas, storm-water management facilities, and water efficiency. Respondents explained that the reasons those elements were not implemented were generally related to administration and designer recommendation, aesthetics, budget, environmental concerns, and maintenance concerns.

These responses show that some designers had to make decisions based on budget, maintenance concerns, and environmental concerns, in order to design a space that meets the university's mission. Administrators' responses show more concern about maintenance, safety, and administration recommendation.

5.1.4 Respondents Elaboration

Respondents were pleased with the outcomes of each courtyard design that they were involved with. Some explained that the courtyards met their original expectations because of proper communication between the designers, contractors, and university administrators.

A few respondents recommended the implementation of certain programmatic elements that were proposed in the survey, but which they were not actually able to include on site. These elements include safety element and seating areas, water features, and native plants. Respondents explained that these elements were not included due to maintenance, budget, and program requirement. Most of the comments centered around budget concerns, which seem to have put constraints on the components that designers wished to include, such as sustainable elements.

5.2 Summary

This section illustrates the researcher's opinion about each courtyard based on what was learned from the literature, the survey, and the discussion.

5.2.1 MSU, The Ruby Courtyard

The Ruby Courtyard appears to be a private space for the users of the surrounding residential buildings. It gives the impression that it is an inviting space, even though it has a large gate that is closed at night to non-residents.

This courtyard provides multiple amenities for its users. However, the way the site was graded, which includes a mounded area, hinders the possibility of certain recreational activities. As shown in figure 5.4, the site is separated into two parts by a pedestrian walk. This separation might make it difficult for students to engage in activities that require large open spaces, such as playing football or frisbee. However, jogging, sitting to relax and studying would all be possible. Figure 5.5 shows that the installation of multiple light units around the site provides a safe, well-lit environment for students. This might be related to the importance of the safety elements which were ranked high by the administrator. However, there was an opportunity to reduce energy

use by selecting more efficient fixtures in the same context which would help meet the sustainability goals.

Figure 5.4 Image of the Ruby Courtyard showing how the site is separated into two parts by a pedestrian walk. *Source:* Tariq Mahadin

Figure 5.5 Image of the Ruby Courtyard showing how multiple light units are installed for a seating area. *Source:* Tariq Mahadin.

The survey responses of both the designer and administrator of Ruby Courtyard indicate that both groups tried to meet the needs and demands of the users to interact with the space in the best way possible. According to the designer's and administrator's rankings, issues related to budget and maintenance were the main reasons for not implementing other potentially suitable program elements on site, such as a water feature element.

The courtyard is simple, and has a good open space framework. It seems to be a successful example of a residential campus courtyard. Within this framework, other elements that were not implemented due to cost or maintenance concerns could have been implemented or added in the future. For example, a storm-water bio-retention facility could be incorporated within the open space framework without changing the

design. Perhaps with better knowledge of these opportunities future projects could begin to incorporate more sustainable strategies.

5.2.2 Ole Miss, The Residential Courtyard

The Residential Courtyard is a private space for primarily residents. Figure 5.6 shows that the courtyard is largely paved, which provides a flexible space, and the addition of movable seating to the space would make it even more flexible. The large amount of light units and the way they were installed might be an issue due to the fact that the space itself is small. The courtyard does not provide seating or shaded areas or an interaction space. It is a very flexible space; however, it may not meet students' needs.

Figure 5.6 Image of the Residential Courtyard showing how the space is flexible. *Source:* Tariq Mahadin.

Another point to be addressed concerning the Residential Courtyard involves the character of the space. The courtyard appears to lack amenities for students. This may indicate a lack of participation from interested parties. However, due to the flexibility of the space, additional elements could easily be added and incorporated into the existing framework.

5.2.3 UF, The Yardley Courtyards

The Yardley Courtyard is a different type of courtyard due to its configuration. This project might be the best example of a team process because the designer's and administrator's survey responses show that there was a clear understanding of the goals and objectives for the space between both groups. It is also clear from the discussion that they worked well together and that their backgrounds supported what needed to be done. This compatibility and understanding between the two groups led to a program development that successfully addressed the users' needs.

The courtyard is open to the public and provides multiple amenities for its users. It is well integrated with the rest of the campus and is surrounded by residential housing units, an academic advising center, and an alumni gathering place. The courtyard therefore serves university students, faculty, alumni, and other guests from outside of the campus. Figure 5.7 shows that the space has several seating areas that are shaded with trees, and some that are open to the sun. The space is also designed for users to jog and is open to anyone who passes the area. As seen in figure 5.8, another element that was implemented on site was a water feature, which makes this courtyard unique from the other three courtyards; it provided a positive addition to the space for creating a sense of a place.

Figure 5.7 Image of a shaded area covered with trees at the Yardley Courtyards. *Source:* Tariq Mahadin

Figure 5.8 Image of the implemented water feature at the Yardley Courtyards. *Source:* Tariq Mahadin.

The outcome of the Yardley Courtyards provides a positive example of creating a residential campus courtyard. However, like the others, it lacks sustainable components that could easily be implemented for both educational and environmental concerns.

5.2.4 LSU, The Residential College I Courtyard

The Residential College I Courtyard gives the impression that the designer and administrator had a clear design goal of integrating the courtyard with the rest of the campus. The outcome also shows that there was a great deal of integration of the existing vegetation with the space; for example, figure 5.9 shows the preservation of an existing live oak tree by surrounding it with a retaining wall.

Figure 5.9 Image of the preserved live oak tree at the Residential College I. *Source:* Tariq Mahadin.

The courtyard serves both students and visitors. It is surrounded by two residential buildings that have indoor classrooms which are open to the courtyard. It appears that this courtyard is not a private space. Figure 5.10 shows that the space has several seating areas, some are standard manufactured seating, and some were designed uniquely for the space. The courtyard has a large green open space that would be suitable for recreational activities, studying, or relaxing outdoors. Some areas in the courtyard are shaded by shade trees.

Figure 5.10 Image of the unique designed seating area at the Residential College I. *Source:* Tariq Mahadin.

This was the only residential complex that had classrooms included in its program as a residential college. Therefore, it was interesting that there were no formal program

elements to facilitate outdoor learning in the courtyard. However, several of the gathering spaces could serve this function for smaller groups.

5.3 Conclusions

Designing a residential campus courtyard might be a routine task for landscape architects or designers in general, but this type of space has a main goal that designers need to consider above all: meeting the needs and demands of the users that will live and interact around this space. Many different individuals and groups need to be involved with this kind of design. Students should also be fully involved in this type of design project, especially the students who will live or who have already lived in a residential courtyard. The specific needs and demands would be more valuable and relevant if they come from people who actually use, live, and interact with the space. Other individuals who should be involved are the university landscape planners, architects, interior designers, university housing staff, and facilities staff.

How to address the environmental challenges that our time is facing is a question that is being discussed globally. Some individuals who participated in the survey expressed their concerns by ranking certain programmatic elements as important, and then explaining why these elements were not able to be included in their projects. Their reasons were related to financial and maintenance concerns, which seem to have had the biggest influence during the design process.

The ranking of the programmatic elements shows that each of the projects has unique characteristics. Each design project opens up several questions that are fundamental to landscape architecture, questions such as: What does the environment offer us? What is the culture of the place? And what are the budget constraints? Asking

these questions with the designers and administrators will illustrate which programmatic elements should be considered as priorities.

The following recommendations were taken from the design process. While they are not conclusive, they can be considered as starting points in developing a comprehensive program to design a residential campus courtyard:

1. The environment: Analyze the geographic location of the design area at the beginning of any design process, specifically by studying the native plants that would adapt suitably to the site, while also becoming aware of the seasonal climate change and how it affects the site.
2. The culture: Understand the university's culture in order to create a space that can incorporate and educate the actual users of the space.
3. Budget: Prioritize the main concerns that need to be addressed, and carefully assess the budget constraints that will lead to critical decisions about the design.
4. People: Involvement of some specific groups of individuals plays a major role in shaping and creating a space that the users will feel comfortable with; this group should include students, landscape architects, architects, and all university staff that are involved in meeting students' demands on any campus.
5. Priorities: Focus on developing a successful space with primary program elements. If the budget is limited, the following elements should be considered as basic structural components for the program development to create a successful residential campus courtyard:

    A. Safety Features

B. Pedestrian Walks

C. Landscape Furniture

D. Studying and Socializing Areas

E. Shaded Areas

More specific elements that could help in creating a successful residential campus courtyard are:

A. Recreational Areas

B. Dining areas

C. Outdoor Classrooms

D. Special Elements Such as Water Features

6. Sustainability: Explore and research sustainable technologies and techniques that could be incorporated into the overall site design. By understanding the tools that are available, and understanding the true costs of maintenance and implementation over the life cycle of the project, sustainable components could easily be incorporated into any design framework.

These recommendations will help to develop a dynamic vision on prioritizing which programmatic elements should be included. These steps will guide the design process to meet the goals and objectives of the university and successfully create a residential campus courtyard.

5.4 Future Research

This research provides a general idea of what programmatic elements are the most important in the process of creating a suitable residential campus courtyard in the southeast United States from the perspectives of designers and administrators.

Future research on this subject that would be helpful is taking this current research and administering the survey to a larger number of administrators and designers, and then investigating the responses using a quantitative approach. It would also be beneficial to involve the users of a residential campus courtyard in order to incorporate their expectations and preferences and compare them with the designers' and administrators' responses.

Another research topic that would be helpful in the future is taking one of the programmatic elements and expanding on its impact on any campus. The outcome would be highly important for continuing development and implementing suitable program elements for creating a better place.

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APPENDIX A

SURVEY COVER LETTERS

Date

Dear Sir

A few days from now you will be receiving an e-mail that contains an online survey which addresses the perceptions of designers and administrators on the programmatic elements of residential campus courtyards in the southeast United States.

My name is Tariq Mahadin, and I'm a graduate student at Mississippi State University pursuing my second master's degree in landscape architecture.

The purpose of this study is to assess and understand the designers' and administrators' perceptions on existing residential campus courtyards that were built in the southeast. The ultimate goal of this survey is to discover the most important programmatic elements that designers need to consider in order to create a suitable residential campus courtyard.

I'm writing in advance to remind you that I'm investigating the **Courtyard Name** in **Courtyard Location** that you were involved in.

The survey will take 20 to 30 minutes to complete. I understand that your time is valuable, therefore the survey includes an option to save your responses anytime. Please be advised that the information and responses in the survey, including your name, will be available to the public.

Thank you for your help and assistance.

Sincerely

Tariq Mahadin
Graduate Student
Department of Landscape Architecture
Mississippi State University
Email: tkm73@msstate.edu

Cory Gallo
Graduate Advisor
Assistant Professor
Department of Landscape Architecture
Mississippi State University
Email: cgallo@lalc.msstate.edu

Date

Dear Respondent,

My name is Tariq Mahadin, and I'm a graduate student at Mississippi State University pursuing my second Master's degree in Landscape Architecture. I graduated with a Bachelor's of Interior Design from Petra University in Jordan and a Master's degree in Landscape Design and Environmental Planning from Catania University in Italy. I am currently working on a research project with Assistant Professor Cory Gallo that involves Residential Campus Courtyards in the southeast of United States.

The purpose of this study is to assess and understand the designers' and administrators' perceptions on existing residential campus courtyards that were built in the southeast. The ultimate goal of this survey is to discover the most important programmatic elements that designers need to consider in order to create a suitable residential campus courtyard.

I'm writing in advance to remind you that I'm investigating the **Courtyard Name** in **Courtyard Location** that you were involved in.

The survey consists of 27 concise questions which address designers' and administrators' perceptions on the programmatic elements of residential campus courtyards in the southeast United States.

The survey will take 20 to 30 minutes to complete. I understand that your time is valuable, therefore the survey includes an option to save your responses anytime. Please be advised that the information and responses in the survey, including your name, will be available to the public.

For questions regarding your rights as a participant in human subject's research, please contact the Mississippi State University Office of Regulatory Compliance at (662) 325-3994 or via email at irb@research.msstate.edu. If you have questions or comments about the survey, please contact Tariq Mahadin at tkm73@msstate.edu or Cory Gallo at cgallo@lalc.msstate.edu. If not, please follow the link below.

Thanks again for your participation in contributing to the success of this research.

Please follow the link below to begin the survey:
http://app.fluidsurveys.com/surveys/mahadin83/designer-and-administrator/

Sincerely,

Tariq Mahadin
Graduate Student
Department of Landscape Architecture
Mississippi State University
Email: tkm73@msstate.edu

Cory Gallo
Graduate Advisor
Assistant Professor
Department of Landscape Architecture
Mississippi State University
Email: cgallo@lalc.msstate.edu

Date

Dear Respondent,

During the past few weeks, I have sent several emails requesting your participation in an online survey that addresses designers' and administrators' perceptions on residential campus courtyards. I will truly appreciate the dedication of your time to the success of my research. Please be advised that the survey will be closed on *Date*(IRB pending approval).

The purpose of this study is to assess and understand the designers' and administrators' perceptions on existing residential campus courtyards that were built in the southeast. The ultimate goal of this survey is to discover the most important programmatic elements that designers need to consider in order to create a suitable residential campus courtyard.

I'm writing in advance to remind you that I'm investigating the **Courtyard Name** in **Courtyard Location** that you were involved in.

The survey will take 20 to 30 minutes to complete. I understand that your time is valuable, therefore the survey includes an option to save your responses anytime. Please be advised that the information and responses in the survey, including your name, will be available to the public.

For questions regarding your rights as a participant in human subject's research, please contact the Mississippi State University Office of Regulatory Compliance at (662) 325-3994 or via email at irb@research.msstate.edu. If you have questions or comments about the survey, please contact Tariq Mahadin at tkm73@msstate.edu or Cory Gallo at cgallo@lalc.msstate.edu. If not, please follow the link below.

Thanks again for your participation in contributing to the success of this research.

Please follow the link below to begin the survey:
http://app.fluidsurveys.com/surveys/mahadin83/designer-and-administrator/

Sincerely,

Tariq Mahadin
Graduate Student
Department of Landscape Architecture
Mississippi State University
Email: tkm73@msstate.edu

Cory Gallo
Graduate Advisor
Assistant Professor
Department of Landscape Architecture
Mississippi State University
Email: cgallo@lalc.msstate.edu

APPENDIX B

SURVEY: MSU ADMINISTRATOR FRED MOCK

A Designer and an Administrator Survey of the Programmatic Elements of Residential Campus Courtyards

Filled Wednesday, March 09, 2011

Page 1

Welcome to the designer and administrator survey of the various programmatic elements of residential campus courtyards. We appreciate you taking the time to participate in this research.
The survey consists of 27 concise questions and will take approximately 20-30 minutes to complete. If you are unable to complete the survey in the first sitting, you may exit the survey and your responses will be saved automatically pending your return.
In order for this survey to be a success, we need your honest responses. The information and responses will be linked to your identity.. Results of this research are available upon request at the end of the survey.
For questions regarding your rights as a participant in human subjects research, please contact the Mississippi State University Office of Regulatory Compliance at (662) 325-3994 or via email at irb@research.msstate.edu. If you have questions or comments about the survey, please contact Tariq Mahadin at tkm73@msstate.edu or Cory Gallo at cgallo@lalc.msstate.edu.
Thanks again for your participation in contributing to the success of this research.

Page 2

Section One: Demographics

1. What is your name?

Fred Mock

2. What is your highest level of Education?

Masters

3. What is your educational background?

Civil/Environmental Engineering

4. Do you have a professional registration or license title?

No

5. What was your role related to the project?

MSU Project Manager

6. What was the budget for this project and how was it funded?

$20,000,000 MSU EBC (Educational Building Corporation) bond funds

7. Please select all individuals or groups that were involved during the program development / Design process.

Architect, Civil Engineer, Contractor, Landscape Architect, Landscape Contractor, Project Manager, Students, Surveyor , University Facilities Staff, University Housing Staff

Page 3

Section Two: Classification

1. Please rank the following major design themes in terms of importance for developing the programmatic elements and site design.
(Note: please rank the design themes using each number only once, with number 1 as the most important and number 4 as the least important)

1. Please rank the follow... | Aesthetics	1
1. Please rank the follow... | Social Activities	2
1. Please rank the follow... | Student Learning	4
1. Please rank the follow... | Sustainability	3

2. Please rank the following programmatic elements on a scale from 1 – 14 according to their level of consideration on the project:
(Note: please rank using each number only once, with number 1 as the most important and number 14 as the least important)

2. Please rank the follow... | Energy Efficient Elements: Providing design concep...	10
2. Please rank the follow... | Landscape Furniture: Providing seating areas, tras...	4
2. Please rank the follow... | Native / Adaptive Plants: Plants that are adapted ...	7
2. Please rank the follow... | Outdoor Classrooms: Suitable places for users to h...	11
2. Please rank the follow... | Outdoor Dining Areas: Providing suitable facilitie...	12
2. Please rank the follow... | Outdoor Laboratory: Intentionally providing elemen...	13
2. Please rank the follow... | Pedestrian Walks: Providing sidewalks for users to...	3
2. Please rank the follow... | Recreational Areas: Providing places for physical ...	6
2. Please rank the follow... | Safety Features: Providing sufficient lighting for...	1
2. Please rank the follow... | Shaded Areas: Providing canopy trees, gazebos, etc...	5
2. Please rank the follow... | Special Elements: Providing water features, sculpt...	8
2. Please rank the follow... | Storm-water Management Facilities: Managing storm-...	9
2. Please rank the follow... | Studying and Socializing Areas: Suitable places fo...	2
2. Please rank the follow... | Water Efficient Elements: Providing reuse or effic...	14

Page 4

Section Three: Clarification

Please respond to the following questions by answering if each programmatic element was implemented on the site and why or why not.

1. Energy Efficient Elements: Providing design concepts for reducing energy use, such as solar systems, or efficient lighting.
A. Was it implemented on site?

No

B. Why or why not?

Administration Recommendation, Designer Recommendation, Maintenance Concerns, Safety

2. Landscape Furniture: Providing seating areas, trash cans, light units, benches, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Aesthetics, Budget, Designer Recommendation, Safety, User Needs

3. Native / Adaptive Plants: Plants that are adapted to growing in the region without irrigation or fertilizers.
A. Was it implemented on site?

No

B. Why or why not?

Designer Recommendation, Maintenance Concerns

4. Outdoor Classrooms: Suitable places for users to hold classes.
A. Was it implemented on site?

No

B. Why or why not?

Administration Recommendation, User Needs

5. Outdoor Dining Areas: Providing suitable facilities for users to dine outside.
A. Was it implemented on site?

No

B. Why or why not?

Administration Recommendation, User Needs

6. Outdoor Laboratory: Intentionally providing elements that educate the users.
A. Was it implemented on site?

No

B. Why or why not?

Administration Recommendation, User Needs

7. Pedestrian Walks: Providing sidewalks for users to recreationally jog or walk.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Aesthetics, Budget, Designer Recommendation, Safety, User Needs

8. Recreational Areas: Providing places for physical activities such as volleyball, Frisbee, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Aesthetics, Budget, Designer Recommendation, Safety, User Needs

9. Safety Features: Providing sufficient lighting for visibility and/or other security systems.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Aesthetics, Budget, Designer Recommendation, Maintenance Concerns, Safety, User Needs

10. Shaded Areas: Providing canopy trees, gazebos, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Aesthetics, Budget, Designer Recommendation, Environmental Concerns, Maintenance Concerns, Safety, User Needs

11. Special Elements: Providing water features, sculptural figures, art work, murals, etc.
A. Was it implemented on site?

No

B. Why or why not?

Administration Recommendation, Budget, Maintenance Concerns, Safety, User Needs

12. Storm-water Management Facilities: Managing storm-water quality and quantity on site.
A. Was it implemented on site?

No

B. Why or why not?

Aesthetics, Designer Recommendation

13. Studying and Socializing Areas: Suitable places for users to study and socially interact.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Aesthetics, Budget, Designer Recommendation, Safety, User Needs

14. Water Efficient Elements: Providing reuse or efficient irrigation.
A. Was it implemented on site?

No

B. Why or why not?

Administration Recommendation, Budget, Designer Recommendation, Maintenance Concerns

Section Four: Elaboration

1. Please describe in your own words if this project has fulfilled your original expectations.

Yes. We did consider water features but because of safety and maintenance concerns we decided not to go with one. I still think this was the correct decision.

2. Please describe in your own words whether you think this space has or has not been successful.

It has been successful. I routinely observe students use the courtyard for reading/study, conversation, sunbathing, frisbee, grilling and small group events.

3. If there was anything that you could have changed in the project, what would it be?

Would change some of the outdoor seating areas - instead of several one bench areas, would have had more multi-bench areas.

4. You have reached the end of the survey. Thank you for your participation. If you would like to receive a copy of these results please provide us with an email address below.

4. You have reached the e... | Email:	fcm9@msstate.edu
4. You have reached the e... | Comments	(No response)

APPENDIX C

SURVEY: MSU DESIGNER ROBERT E. LUKE

A Designer and an Administrator Survey of the Programmatic Elements of Residential Campus Courtyards

Filled Friday, March 11, 2011

Page 1

Welcome to the designer and administrator survey of the various programmatic elements of residential campus courtyards. We appreciate you taking the time to participate in this research.
The survey consists of 27 concise questions and will take approximately 20-30 minutes to complete. If you are unable to complete the survey in the first sitting, you may exit the survey and your responses will be saved automatically pending your return.
In order for this survey to be a success, we need your honest responses. The information and responses will be linked to your identity.. Results of this research are available upon request at the end of the survey.
For questions regarding your rights as a participant in human subjects research, please contact the Mississippi State University Office of Regulatory Compliance at (662) 325-3994 or via email at irb@research.msstate.edu. If you have questions or comments about the survey, please contact Tariq Mahadin at tkm73@msstate.edu or Cory Gallo at cgallo@lalc.msstate.edu.
Thanks again for your participation in contributing to the success of this research.

Page 2

Section One: Demographics

1. What is your name?

Robert E. Luke

2. What is your highest level of Education?

Bachelors

3. What is your educational background?

Architecture

4. Do you have a professional registration or license title?

(No response)

5. What was your role related to the project?

Principal in charge luke-kaye architects

6. What was the budget for this project and how was it funded?

$17 Million

7. Please select all individuals or groups that were involved during the program development / Design process.

Architect, Campus planner, City Official, Civil Engineer, Contractor, Estimator, Landscape Architect, Project Manager, Students, Surveyor , University Facilities Staff, University Housing Staff

Page 3

Section Two: Classification

1. Please rank the following major design themes in terms of importance for developing the programmatic elements and site design.
(Note: please rank the design themes using each number only once, with number 1 as the most important and number 4 as the least important)

1. Please rank the follow... | Aesthetics	1
1. Please rank the follow... | Social Activities	2
1. Please rank the follow... | Student Learning	3
1. Please rank the follow... | Sustainability	4

2. Please rank the following programmatic elements on a scale from 1 – 14 according to their level of consideration on the project:
(Note: please rank using each number only once, with number 1 as the most important and number 14 as the least important)

2. Please rank the follow... | Energy Efficient Elements: Providing design concep...	14
2. Please rank the follow... | Landscape Furniture: Providing seating areas, tras...	11
2. Please rank the follow... | Native / Adaptive Plants: Plants that are adapted ...	12
2. Please rank the follow... | Outdoor Classrooms: Suitable places for users to h...	5
2. Please rank the follow... | Outdoor Dining Areas: Providing suitable facilitie...	4
2. Please rank the follow... | Outdoor Laboratory: Intentionally providing elemen...	3
2. Please rank the follow... | Pedestrian Walks: Providing sidewalks for users to...	6
2. Please rank the follow... | Recreational Areas: Providing places for physical ...	2
2. Please rank the follow... | Safety Features: Providing sufficient lighting for...	13
2. Please rank the follow... | Shaded Areas: Providing canopy trees, gazebos, etc...	7
2. Please rank the follow... | Special Elements: Providing water features, sculpt...	9
2. Please rank the follow... | Storm-water Management Facilities: Managing storm-...	8
2. Please rank the follow... | Studying and Socializing Areas: Suitable places fo...	1
2. Please rank the follow... | Water Efficient Elements: Providing reuse or effic...	10

Page 4

Section Three: Clarification

Please respond to the following questions by answering if each programmatic element was implemented on the site and why or why not.

1. Energy Efficient Elements: Providing design concepts for reducing energy use, such as solar systems, or efficient lighting.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation, Environmental Concerns, Safety, User Needs

2. Landscape Furniture: Providing seating areas, trash cans, light units, benches, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

User Needs

3. Native / Adaptive Plants: Plants that are adapted to growing in the region without irrigation or fertilizers.
A. Was it implemented on site?

Yes

B. Why or why not?

Aesthetics, Designer Recommendation, Environmental Concerns

4. Outdoor Classrooms: Suitable places for users to hold classes.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation, User Needs

5. Outdoor Dining Areas: Providing suitable facilities for users to dine outside.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation, User Needs

6. Outdoor Laboratory: Intentionally providing elements that educate the users.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Designer Recommendation, User Needs

7. Pedestrian Walks: Providing sidewalks for users to recreationally jog or walk.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Designer Recommendation, User Needs

8. Recreational Areas: Providing places for physical activities such as volleyball, Frisbee, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Designer Recommendation, User Needs

9. Safety Features: Providing sufficient lighting for visibility and/or other security systems.
A. Was it implemented on site?

Yes

B. Why or why not?

Aesthetics, Safety, User Needs

10. Shaded Areas: Providing canopy trees, gazebos, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Designer Recommendation, Environmental Concerns

11. Special Elements: Providing water features, sculptural figures, art work, murals, etc.
A. Was it implemented on site?

No

B. Why or why not?

Administration Recommendation

12. Storm-water Management Facilities: Managing storm-water quality and quantity on site.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation, Environmental Concerns, Maintenance Concerns, User Needs

13. Studying and Socializing Areas: Suitable places for users to study and socially interact.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Designer Recommendation, User Needs

14. Water Efficient Elements: Providing reuse or efficient irrigation.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation, Environmental Concerns, Maintenance Concerns

Page 5

Section Four: Elaboration

1. Please describe in your own words if this project has fulfilled your original expectations.

Overall the project was a success…the quality of the space, its scale and feel seem to be appropriate for the area. The minor change in grade or elevation creates a game with sight lines, perceived distance and scale that produce a positive effect. The landscape materials around the perimeter could be better but that is probably an installation issue. Over a I believe the courtyard is a major contributor to the success to the project.

2. Please describe in your own words whether you think this space has or has not been successful.

The space and the project are difficult to separate…the space itself that is defined by the walls of the building would not be successful without the design of the courtyard that we utilized.

3. If there was anything that you could have changed in the project, what would it be?

I would attempt to provide water as a design feature, this was discussed but the management had concerns with vandalism. Today with the use of cameras and exposure to quality design elements such as water I believe it could be managed.

4. You have reached the end of the survey. Thank you for your participation. If you would like to receive a copy of these results please provide us with an email address below.

4. You have reached the e... | Email:	(No response)
4. You have reached the e... | Comments	(No response)

APPENDIX D

SURVEY: OLE MISS ADMINISTRATOR JEFF MCMANUS

A Designer and an Administrator Survey of the Programmatic Elements of Residential Campus Courtyards

Filled Wednesday, February 16, 2011

Page 1

Welcome to the designer and administrator survey of the various programmatic elements of residential campus courtyards. We appreciate you taking the time to participate in this research.
The survey consists of 27 concise questions and will take approximately 20-30 minutes to complete. If you are unable to complete the survey in the first sitting, you may exit the survey and your responses will be saved automatically pending your return.
In order for this survey to be a success, we need your honest responses. The information and responses will be linked to your identity.. Results of this research are available upon request at the end of the survey.
For questions regarding your rights as a participant in human subjects research, please contact the Mississippi State University Office of Regulatory Compliance at (662) 325-3994 or via email at irb@research.msstate.edu. If you have questions or comments about the survey, please contact Tariq Mahadin at tkm73@msstate.edu or Cory Gallo at cgallo@lalc.msstate.edu.
Thanks again for your participation in contributing to the success of this research.

Page 2

Section One: Demographics

1. What is your name?

Jeff McManus

2. What is your highest level of Education?

Bachelors

3. What is your educational background?

Landscape and Ornamental Horticulture

4. Do you have a professional registration or license title?

No

5. What was your role related to the project?

Director of Landscape Services for the Ole Miss campus.

6. What was the budget for this project and how was it funded?

Courtyard was not broken out as a separate budget item. If it was I would estimate about $25k for the landscaping and irrigation.

7. Please select all individuals or groups that were involved during the program development / Design process.

Architect, Landscape Architect, Landscape Contractor, Surveyor , University Facilities Staff, University Housing Staff

Page 3

Section Two: Classification

1. Please rank the following major design themes in terms of importance for developing the programmatic elements and site design.
(Note: please rank the design themes using each number only once, with number 1 as the most important and number 4 as the least important)

1. Please rank the follow... | Aesthetics	2
1. Please rank the follow... | Social Activities	1
1. Please rank the follow... | Student Learning	4
1. Please rank the follow... | Sustainability	3

2. Please rank the following programmatic elements on a scale from 1 – 14 according to their level of consideration on the project:
(Note: please rank using each number only once, with number 1 as the most important and number 14 as the least important)

2. Please rank the follow... | Energy Efficient Elements: Providing design concep...	2
2. Please rank the follow... | Landscape Furniture: Providing seating areas, tras...	8
2. Please rank the follow... | Native / Adaptive Plants: Plants that are adapted ...	13
2. Please rank the follow... | Outdoor Classrooms: Suitable places for users to h...	7
2. Please rank the follow... | Outdoor Dining Areas: Providing suitable facilitie...	9
2. Please rank the follow... | Outdoor Laboratory: Intentionally providing elemen...	11
2. Please rank the follow... | Pedestrian Walks: Providing sidewalks for users to...	6
2. Please rank the follow... | Recreational Areas: Providing places for physical ...	12
2. Please rank the follow... | Safety Features: Providing sufficient lighting for...	1
2. Please rank the follow... | Shaded Areas: Providing canopy trees, gazebos, etc...	5
2. Please rank the follow... | Special Elements: Providing water features, sculpt...	10
2. Please rank the follow... | Storm-water Management Facilities: Managing storm-...	3
2. Please rank the follow... | Studying and Socializing Areas: Suitable places fo...	4
2. Please rank the follow... | Water Efficient Elements: Providing reuse or effic...	14

Page 4

Section Three: Clarification

Please respond to the following questions by answering if each programmatic element was implemented on the site and why or why not.

1. Energy Efficient Elements: Providing design concepts for reducing energy use, such as solar systems, or efficient lighting.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation

2. Landscape Furniture: Providing seating areas, trash cans, light units, benches, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation

3. Native / Adaptive Plants: Plants that are adapted to growing in the region without irrigation or fertilizers.
A. Was it implemented on site?

No

B. Why or why not?

User Needs

4. Outdoor Classrooms: Suitable places for users to hold classes.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation

5. Outdoor Dining Areas: Providing suitable facilities for users to dine outside.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation

6. Outdoor Laboratory: Intentionally providing elements that educate the users.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation

7. Pedestrian Walks: Providing sidewalks for users to recreationally jog or walk.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation

8. Recreational Areas: Providing places for physical activities such as volleyball, Frisbee, etc.
A. Was it implemented on site?

No

B. Why or why not?

Budget

9. Safety Features: Providing sufficient lighting for visibility and/or other security systems.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation

10. Shaded Areas: Providing canopy trees, gazebos, etc.
A. Was it implemented on site?

No

B. Why or why not?

Aesthetics

11. Special Elements: Providing water features, sculptural figures, art work, murals, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation

12. Storm-water Management Facilities: Managing storm-water quality and quantity on site.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation

13. Studying and Socializing Areas: Suitable places for users to study and socially interact.
A. Was it implemented on site?

Yes

B. Why or why not?

Safety

14. Water Efficient Elements: Providing reuse or efficient irrigation.
A. Was it implemented on site?

No

B. Why or why not?

Budget

Page 5

Section Four: Elaboration

1. Please describe in your own words if this project has fulfilled your original expectations.

Housing need for good social safe space and to hold small gatherings was met.

2. Please describe in your own words whether you think this space has or has not been successful.

Students seem to enjoy the area. It is used everyday.

3. If there was anything that you could have changed in the project, what would it be?

Added more planted materials.

4. You have reached the end of the survey. Thank you for your participation. If you would like to receive a copy of these results please provide us with an email address below.

4. You have reached the e... | Email:	jmcmanus@olemiss.edu
4. You have reached the e... | Comments	(No response)

APPENDIX E

SURVEY: OLE MISS DESIGNER GREG NARLOCK

A Designer and an Administrator Survey of the Programmatic Elements of Residential Campus Courtyards

Filled Thursday, March 10, 2011

Page 1

Welcome to the designer and administrator survey of the various programmatic elements of residential campus courtyards. We appreciate you taking the time to participate in this research.
The survey consists of 27 concise questions and will take approximately 20-30 minutes to complete. If you are unable to complete the survey in the first sitting, you may exit the survey and your responses will be saved automatically pending your return.
In order for this survey to be a success, we need your honest responses. The information and responses will be linked to your identity.. Results of this research are available upon request at the end of the survey.
For questions regarding your rights as a participant in human subjects research, please contact the Mississippi State University Office of Regulatory Compliance at (662) 325-3994 or via email at irb@research.msstate.edu. If you have questions or comments about the survey, please contact Tariq Mahadin at tkm73@msstate.edu or Cory Gallo at cgallo@lalc.msstate.edu.
Thanks again for your participation in contributing to the success of this research.

Page 2

Section One: Demographics

1. What is your name?

Greg Narlock

2. What is your highest level of Education?

Associates

3. What is your educational background?

Architecture

4. Do you have a professional registration or license title?

No

5. What was your role related to the project?

Project Manager

6. What was the budget for this project and how was it funded?

The project was split into two phases. The first phase or South College was budgeted at 32.5 million and the second phase or North College was 29.8M.

7. Please select all individuals or groups that were involved during the program development / Design process.

Architect, Campus planner, City Official, Civil Engineer, Contractor, Estimator, Landscape Architect, Landscape Contractor, Project Manager, Students, Surveyor , University Facilities Staff, University Housing Staff, Mechanical and electrical engineers

Page 3

Section Two: Classification

1. Please rank the following major design themes in terms of importance for developing the programmatic elements and site design.
(Note: please rank the design themes using each number only once, with number 1 as the most important and number 4 as the least important)

1. Please rank the follow... | Aesthetics	2
1. Please rank the follow... | Social Activities	1
1. Please rank the follow... | Student Learning	3
1. Please rank the follow... | Sustainability	4

2. Please rank the following programmatic elements on a scale from 1 – 14 according to their level of consideration on the project:
(Note: please rank using each number only once, with number 1 as the most important and number 14 as the least important)

2. Please rank the follow... | Energy Efficient Elements: Providing design concep...	12
2. Please rank the follow... | Landscape Furniture: Providing seating areas, tras...	6
2. Please rank the follow... | Native / Adaptive Plants: Plants that are adapted ...	7
2. Please rank the follow... | Outdoor Classrooms: Suitable places for users to h...	10
2. Please rank the follow... | Outdoor Dining Areas: Providing suitable facilitie...	4
2. Please rank the follow... | Outdoor Laboratory: Intentionally providing elemen...	13
2. Please rank the follow... | Pedestrian Walks: Providing sidewalks for users to...	2
2. Please rank the follow... | Recreational Areas: Providing places for physical ...	3
2. Please rank the follow... | Safety Features: Providing sufficient lighting for...	5
2. Please rank the follow... | Shaded Areas: Providing canopy trees, gazebos, etc...	8
2. Please rank the follow... | Special Elements: Providing water features, sculpt...	14
2. Please rank the follow... | Storm-water Management Facilities: Managing storm-...	9
2. Please rank the follow... | Studying and Socializing Areas: Suitable places fo...	1

Page 4

Section Three: Clarification

Please respond to the following questions by answering if each programmatic element was implemented on the site and why or why not.

1. Energy Efficient Elements: Providing design concepts for reducing energy use, such as solar systems, or efficient lighting.
A. Was it implemented on site?

No

B. Why or why not?

Budget, Maintenance Concerns

2. Landscape Furniture: Providing seating areas, trash cans, light units, benches, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Aesthetics, Designer Recommendation, Environmental Concerns, Safety

3. Native / Adaptive Plants: Plants that are adapted to growing in the region without irrigation or fertilizers.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Environmental Concerns, Maintenance Concerns

4. Outdoor Classrooms: Suitable places for users to hold classes.
A. Was it implemented on site?

No

B. Why or why not?

Not part of project requirements

5. Outdoor Dining Areas: Providing suitable facilities for users to dine outside.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Designer Recommendation

6. Outdoor Laboratory: Intentionally providing elements that educate the users.
A. Was it implemented on site?

No

B. Why or why not?

User Needs

7. Pedestrian Walks: Providing sidewalks for users to recreationally jog or walk.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, User Needs

8. Recreational Areas: Providing places for physical activities such as volleyball, Frisbee, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation

9. Safety Features: Providing sufficient lighting for visibility and/or other security systems.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Designer Recommendation, Safety, User Needs

10. Shaded Areas: Providing canopy trees, gazebos, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Aesthetics, Designer Recommendation

11. Special Elements: Providing water features, sculptural figures, art work, murals, etc.
A. Was it implemented on site?

No

B. Why or why not?

User Needs

12. Storm-water Management Facilities: Managing storm-water quality and quantity on site.
A. Was it implemented on site?

No

B. Why or why not?

User Needs

13. Studying and Socializing Areas: Suitable places for users to study and socially interact.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Designer Recommendation, User Needs

14. Water Efficient Elements: Providing reuse or efficient irrigation.
A. Was it implemented on site?

No

B. Why or why not?

Budget, User Needs

Page 5

Section Four: Elaboration

1. Please describe in your own words if this project has fulfilled your original expectations.

The project has fulfilled the original expectations as it was delivered on time and on budget for one. Additionally, it meets the needs that the University wanted to provide for student housing/living needs and has created a more social and interactive schooling/living experience.

2. Please describe in your own words whether you think this space has or has not been successful.

We believe the project has been successful as we heard heard mostly positive feed back from the University. We have had very few follow ups since the the initial building has opened nearly two years ago. Lastly, delivery of this project on time and on budget were two major hurdles that attributed to the success.

3. If there was anything that you could have changed in the project, what would it be?

Better coordination in the development stage between Architectural and mechanical engineering groups to coordinate items such as access panels. These could have been better integrated in the design process to have a more aesthetic outcome.

4. You have reached the end of the survey. Thank you for your participation. If you would like to receive a copy of these results please provide us with an email address below.

4. You have reached the e... | Email:	gnarlock@cdfl.com
4. You have reached the e... | Comments	(No response)

APPENDIX F

SURVEY: UF ADMINISTRATOR CHANDLER E. ROZEAR

A Designer and an Administrator Survey of the Programmatic Elements of Residential Campus Courtyards

Filled Monday, February 21, 2011

Page 1

Welcome to the designer and administrator survey of the various programmatic elements of residential campus courtyards. We appreciate you taking the time to participate in this research.
The survey consists of 27 concise questions and will take approximately 20-30 minutes to complete. If you are unable to complete the survey in the first sitting, you may exit the survey and your responses will be saved automatically pending your return.
In order for this survey to be a success, we need your honest responses. The information and responses will be linked to your identity.. Results of this research are available upon request at the end of the survey.
For questions regarding your rights as a participant in human subjects research, please contact the Mississippi State University Office of Regulatory Compliance at (662) 325-3994 or via email at irb@research.msstate.edu. If you have questions or comments about the survey, please contact Tariq Mahadin at tkm73@msstate.edu or Cory Gallo at cgallo@lalc.msstate.edu.
Thanks again for your participation in contributing to the success of this research.

Page 2

Section One: Demographics

1. What is your name?

Chandler E. Rozear

2. What is your highest level of Education?

Masters

3. What is your educational background?

Architecture

4. Do you have a professional registration or license title?

Registered Architect

5. What was your role related to the project?

Supervised the Project Manager of the Project.

6. What was the budget for this project and how was it funded?

+/- $500,000. (These records have been archived.) The Construction total at Final Completion was $391,407.30. It was funded by a gift to the University and included the schematic design of several courtyards in this dormatory area in the historic district of campus.

7. Please select all individuals or groups that were involved during the program development / Design process.

Architect, Campus planner, Civil Engineer, Contractor, Landscape Architect, Project Manager, Students, Surveyor , University Facilities Staff, University Housing Staff

Page 3

Section Two: Classification

1. Please rank the following major design themes in terms of importance for developing the programmatic elements and site design.
(Note: please rank the design themes using each number only once, with number 1 as the most important and number 4 as the least important)

1. Please rank the follow... | Aesthetics	1
1. Please rank the follow... | Social Activities	2
1. Please rank the follow... | Student Learning	4
1. Please rank the follow... | Sustainability	3

2. Please rank the following programmatic elements on a scale from 1 – 14 according to their level of consideration on the project:
(Note: please rank using each number only once, with number 1 as the most important and number 14 as the least important)

2. Please rank the follow... | Energy Efficient Elements: Providing design concep...	12
2. Please rank the follow... | Landscape Furniture: Providing seating areas, tras...	5
2. Please rank the follow... | Native / Adaptive Plants: Plants that are adapted ...	8
2. Please rank the follow... | Outdoor Classrooms: Suitable places for users to h...	11
2. Please rank the follow... | Outdoor Dining Areas: Providing suitable facilitie...	7
2. Please rank the follow... | Outdoor Laboratory: Intentionally providing elemen...	13
2. Please rank the follow... | Pedestrian Walks: Providing sidewalks for users to...	2
2. Please rank the follow... | Recreational Areas: Providing places for physical ...	14
2. Please rank the follow... | Safety Features: Providing sufficient lighting for...	6
2. Please rank the follow... | Shaded Areas: Providing canopy trees, gazebos, etc...	3
2. Please rank the follow... | Special Elements: Providing water features, sculpt...	4
2. Please rank the follow... | Storm-water Management Facilities: Managing storm-...	10
2. Please rank the follow... | Studying and Socializing Areas: Suitable places fo...	1

Page 4

Section Three: Clarification

Please respond to the following questions by answering if each programmatic element was implemented on the site and why or why not.

1. Energy Efficient Elements: Providing design concepts for reducing energy use, such as solar systems, or efficient lighting.
A. Was it implemented on site?

No

B. Why or why not?

Aesthetics, Budget, Regulatory Requirement, Safety, User Needs, UF Historic District Lighting Standard applied.

2. Landscape Furniture: Providing seating areas, trash cans, light units, benches, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Aesthetics, Budget, Designer Recommendation, Environmental Concerns, Maintenance Concerns, User Needs

3. Native / Adaptive Plants: Plants that are adapted to growing in the region without irrigation or fertilizers.
A. Was it implemented on site?

Yes

B. Why or why not?

Aesthetics, Budget, Designer Recommendation, Environmental Concerns, Maintenance Concerns, Irrigation with reclaimed water is available.

4. Outdoor Classrooms: Suitable places for users to hold classes.
A. Was it implemented on site?

No

B. Why or why not?

Aesthetics, Designer Recommendation, Not a classroom area.

5. Outdoor Dining Areas: Providing suitable facilities for users to dine outside.
A. Was it implemented on site?

Yes

B. Why or why not?

Aesthetics, Budget, Designer Recommendation, Environmental Concerns, User Needs

6. Outdoor Laboratory: Intentionally providing elements that educate the users.
A. Was it implemented on site?

No

B. Why or why not?

Aesthetics, Budget, Designer Recommendation, Maintenance Concerns

7. Pedestrian Walks: Providing sidewalks for users to recreationally jog or walk.
A. Was it implemented on site?

Yes

B. Why or why not?

Aesthetics, Designer Recommendation, Maintenance Concerns, Safety, User Needs

8. Recreational Areas: Providing places for physical activities such as volleyball, Frisbee, etc.
A. Was it implemented on site?

No

B. Why or why not?

Aesthetics, Budget, Designer Recommendation, Environmental Concerns, Maintenance Concerns, Safety, Not the appropriate area for sports.

9. Safety Features: Providing sufficient lighting for visibility and/or other security systems.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Aesthetics, Budget, Designer Recommendation, Environmental Concerns, Maintenance Concerns, Regulatory Requirement, Safety, User Needs

10. Shaded Areas: Providing canopy trees, gazebos, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Aesthetics, Budget, Designer Recommendation, Environmental Concerns, Maintenance Concerns, Regulatory Requirement, User Needs, Existing grand champion oak dominates west end of garden.

11. Special Elements: Providing water features, sculptural figures, art work, murals, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Aesthetics, Budget, Designer Recommendation, User Needs, Interactive water fountain provided.

12. Storm-water Management Facilities: Managing storm-water quality and quantity on site.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Designer Recommendation, Environmental Concerns, Maintenance Concerns, Regulatory Requirement

13. Studying and Socializing Areas: Suitable places for users to study and socially interact.
A. Was it implemented on site?

Yes

B. Why or why not?

Aesthetics, Budget, Designer Recommendation, User Needs

14. Water Efficient Elements: Providing reuse or efficient irrigation.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Designer Recommendation, Environmental Concerns, Maintenance Concerns, Campus has reclaimed water system.

Page 5

Section Four: Elaboration

1. Please describe in your own words if this project has fulfilled your original expectations.

The project has grown in nicely. Other donations have allowed adjacent gardens to be established.

2. Please describe in your own words whether you think this space has or has not been successful.

When construction started, there was a letter in the student paper from someone complaining about the loss of campus green space. Little did they know what was coming. It went from a mostly bare dirt grass area to a lush and interesting environment.

3. If there was anything that you could have changed in the project, what would it be?

The contractor's superintendent was a very nice fellow but was way out of his league in dealing with decorative concrete.

4. You have reached the end of the survey. Thank you for your participation. If you would like to receive a copy of these results please provide us with an email address below.

4. You have reached the e... | Email:	(No response)
4. You have reached the e... | Comments	(No response)

APPENDIX G

SURVEY: UF DESIGNER KONA GRAY

A Designer and an Administrator Survey of the Programmatic Elements of Residential Campus Courtyards

Filled Thursday, March 10, 2011

Page 1

Welcome to the designer and administrator survey of the various programmatic elements of residential campus courtyards. We appreciate you taking the time to participate in this research.
The survey consists of 27 concise questions and will take approximately 20-30 minutes to complete. If you are unable to complete the survey in the first sitting, you may exit the survey and your responses will be saved automatically pending your return.
In order for this survey to be a success, we need your honest responses. The information and responses will be linked to your identity.. Results of this research are available upon request at the end of the survey.
For questions regarding your rights as a participant in human subjects research, please contact the Mississippi State University Office of Regulatory Compliance at (662) 325-3994 or via email at irb@research.msstate.edu. If you have questions or comments about the survey, please contact Tariq Mahadin at tkm73@msstate.edu or Cory Gallo at cgallo@lalc.msstate.edu.
Thanks again for your participation in contributing to the success of this research.

Page 2

Section One: Demographics

1. What is your name?

Kona Gray

2. What is your highest level of Education?

Bachelors

3. What is your educational background?

Landscape Architecture

4. Do you have a professional registration or license title?

FL6666950

5. What was your role related to the project?

Designer and Project Manager

6. What was the budget for this project and how was it funded?

$500,000.00

7. Please select all individuals or groups that were involved during the program development / Design process.

Campus planner, City Official, Civil Engineer, Contractor, Landscape Architect, Landscape Contractor, Project Manager, Students, Surveyor , University Facilities Staff

Page 3

Section Two: Classification

1. Please rank the following major design themes in terms of importance for developing the programmatic elements and site design.
(Note: please rank the design themes using each number only once, with number 1 as the most important and number 4 as the least important)

1. Please rank the follow... | Aesthetics	3
1. Please rank the follow... | Social Activities	2
1. Please rank the follow... | Student Learning	1
1. Please rank the follow... | Sustainability	4

2. Please rank the following programmatic elements on a scale from 1 – 14 according to their level of consideration on the project:
(Note: please rank using each number only once, with number 1 as the most important and number 14 as the least important)

2. Please rank the follow... | Energy Efficient Elements: Providing design concep...	10
2. Please rank the follow... | Landscape Furniture: Providing seating areas, tras...	4
2. Please rank the follow... | Native / Adaptive Plants: Plants that are adapted ...	8
2. Please rank the follow... | Outdoor Classrooms: Suitable places for users to h...	3
2. Please rank the follow... | Outdoor Dining Areas: Providing suitable facilitie...	6
2. Please rank the follow... | Outdoor Laboratory: Intentionally providing elemen...	2
2. Please rank the follow... | Pedestrian Walks: Providing sidewalks for users to...	12
2. Please rank the follow... | Recreational Areas: Providing places for physical ...	13
2. Please rank the follow... | Safety Features: Providing sufficient lighting for...	9
2. Please rank the follow... | Shaded Areas: Providing canopy trees, gazebos, etc...	5
2. Please rank the follow... | Special Elements: Providing water features, sculpt...	7
2. Please rank the follow... | Storm-water Management Facilities: Managing storm-...	14
2. Please rank the follow... | Studying and Socializing Areas: Suitable places fo...	1
2. Please rank the follow... | Water Efficient Elements: Providing reuse or effic...	11

Page 4

Section Three: Clarification

Please respond to the following questions by answering if each programmatic element was implemented on the site and why or why not.

1. Energy Efficient Elements: Providing design concepts for reducing energy use, such as solar systems, or efficient lighting.
A. Was it implemented on site?

No

B. Why or why not?

Budget, Maintenance Concerns, User Needs

2. Landscape Furniture: Providing seating areas, trash cans, light units, benches, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation

3. Native / Adaptive Plants: Plants that are adapted to growing in the region without irrigation or fertilizers.
A. Was it implemented on site?

Yes

B. Why or why not?

Aesthetics, Environmental Concerns, Maintenance Concerns

4. Outdoor Classrooms: Suitable places for users to hold classes.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation

5. Outdoor Dining Areas: Providing suitable facilities for users to dine outside.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation

6. Outdoor Laboratory: Intentionally providing elements that educate the users.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation

7. Pedestrian Walks: Providing sidewalks for users to recreationally jog or walk.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation, Made capmus connections

8. Recreational Areas: Providing places for physical activities such as volleyball, Frisbee, etc.
A. Was it implemented on site?

No

B. Why or why not?

not in program for space

9. Safety Features: Providing sufficient lighting for visibility and/or other security systems.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation, Safety

10. Shaded Areas: Providing canopy trees, gazebos, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation

11. Special Elements: Providing water features, sculptural figures, art work, murals, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation

12. Storm-water Management Facilities: Managing storm-water quality and quantity on site.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation

13. Studying and Socializing Areas: Suitable places for users to study and socially interact.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation

14. Water Efficient Elements: Providing reuse or efficient irrigation.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation, Environmental Concerns

Page 5

Section Four: Elaboration

1. Please describe in your own words if this project has fulfilled your original expectations.

Yes. This project was designed to reinvigorate the outdoor spaces for the histoic residence halls and give alumni a place to gather. The design provided a place to meet and great, study and relax.

2. Please describe in your own words whether you think this space has or has not been successful.

Based on observation of the space after completion we feel ot is very successful. Many students, faculty, staff and alumni enjoy the courtyard and it serves as a model for future courtyards

3. If there was anything that you could have changed in the project, what would it be?

We feel that based on the budget and time the project could not have been changed and it was very successful.

4. You have reached the end of the survey. Thank you for your participation. If you would like to receive a copy of these results please provide us with an email address below.

4. You have reached the e... | Email:	kgray@edsaplan.com
4. You have reached the e... | Comments	(No response)

APPENDIX H

SURVEY: LSU ADMINISTRATOR STEVE WALLER

A Designer and an Administrator Survey of the Programmatic Elements of Residential Campus Courtyards

Filled Wednesday, March 02, 2011

Page 1

Welcome to the designer and administrator survey of the various programmatic elements of residential campus courtyards. We appreciate you taking the time to participate in this research.
The survey consists of 27 concise questions and will take approximately 20-30 minutes to complete. If you are unable to complete the survey in the first sitting, you may exit the survey and your responses will be saved automatically pending your return.
In order for this survey to be a success, we need your honest responses. The information and responses will be linked to your identity.. Results of this research are available upon request at the end of the survey.
For questions regarding your rights as a participant in human subjects research, please contact the Mississippi State University Office of Regulatory Compliance at (662) 325-3994 or via email at irb@research.msstate.edu. If you have questions or comments about the survey, please contact Tariq Mahadin at tkm73@msstate.edu or Cory Gallo at cgallo@lalc.msstate.edu.
Thanks again for your participation in contributing to the success of this research.

Page 2

Section One: Demographics

1. What is your name?

Steve Waller

2. What is your highest level of Education?

Masters

3. What is your educational background?

Civil/Environmental Engineering

4. Do you have a professional registration or license title?

IT

5. What was your role related to the project?

User

6. What was the budget for this project and how was it funded?

32,000,000

7. Please select all individuals or groups that were involved during the program development / Design process.

Architect, Campus planner, Civil Engineer, Contractor, Estimator, Landscape Architect, Landscape Contractor, Project Manager, Students, Surveyor , University Facilities Staff, University Housing Staff

Page 3

Section Two: Classification

1. Please rank the following major design themes in terms of importance for developing the programmatic elements and site design.
(Note: please rank the design themes using each number only once, with number 1 as the most important and number 4 as the least important)

1. Please rank the follow... | Aesthetics	3
1. Please rank the follow... | Social Activities	2
1. Please rank the follow... | Student Learning	1
1. Please rank the follow... | Sustainability	4

2. Please rank the following programmatic elements on a scale from 1 – 14 according to their level of consideration on the project:
(Note: please rank using each number only once, with number 1 as the most important and number 14 as the least important)

2. Please rank the follow... | Energy Efficient Elements: Providing design concep...	10
2. Please rank the follow... | Landscape Furniture: Providing seating areas, tras...	9
2. Please rank the follow... | Native / Adaptive Plants: Plants that are adapted ...	6
2. Please rank the follow... | Outdoor Classrooms: Suitable places for users to h...	14
2. Please rank the follow... | Outdoor Dining Areas: Providing suitable facilitie...	13
2. Please rank the follow... | Outdoor Laboratory: Intentionally providing elemen...	12
2. Please rank the follow... | Pedestrian Walks: Providing sidewalks for users to...	7
2. Please rank the follow... | Recreational Areas: Providing places for physical ...	5
2. Please rank the follow... | Safety Features: Providing sufficient lighting for...	1
2. Please rank the follow... | Shaded Areas: Providing canopy trees, gazebos, etc...	3
2. Please rank the follow... | Special Elements: Providing water features, sculpt...	11
2. Please rank the follow... | Storm-water Management Facilities: Managing storm-...	8
2. Please rank the follow... | Studying and Socializing Areas: Suitable places fo...	2
2. Please rank the follow... | Water Efficient Elements: Providing reuse or effic...	4

Page 4

Section Three: Clarification

Please respond to the following questions by answering if each programmatic element was implemented on the site and why or why not.

1. Energy Efficient Elements: Providing design concepts for reducing energy use, such as solar systems, or efficient lighting.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Budget, Designer Recommendation, Environmental Concerns

2. Landscape Furniture: Providing seating areas, trash cans, light units, benches, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Aesthetics, Designer Recommendation, Maintenance Concerns

3. Native / Adaptive Plants: Plants that are adapted to growing in the region without irrigation or fertilizers.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Designer Recommendation, Environmental Concerns, Maintenance Concerns

4. Outdoor Classrooms: Suitable places for users to hold classes.
A. Was it implemented on site?

No

B. Why or why not?

Budget, not in scope

5. Outdoor Dining Areas: Providing suitable facilities for users to dine outside.
A. Was it implemented on site?

Yes

B. Why or why not?

Aesthetics

6. Outdoor Laboratory: Intentionally providing elements that educate the users.
A. Was it implemented on site?

No

B. Why or why not?

Budget

7. Pedestrian Walks: Providing sidewalks for users to recreationally jog or walk.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Safety

8. Recreational Areas: Providing places for physical activities such as volleyball, Frisbee, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation

9. Safety Features: Providing sufficient lighting for visibility and/or other security systems.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation, Safety

10. Shaded Areas: Providing canopy trees, gazebos, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation

11. Special Elements: Providing water features, sculptural figures, art work, murals, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Regulatory Requirement

12. Storm-water Management Facilities: Managing storm-water quality and quantity on site.
A. Was it implemented on site?

Yes

B. Why or why not?

Regulatory Requirement

13. Studying and Socializing Areas: Suitable places for users to study and socially interact.
A. Was it implemented on site?

Yes

B. Why or why not?

Administration Recommendation

14. Water Efficient Elements: Providing reuse or efficient irrigation.
A. Was it implemented on site?

No

B. Why or why not?

User Needs

Page 5

Section Four: Elaboration

1. Please describe in your own words if this project has fulfilled your original expectations.

Yes, we are very pleased with the project

2. Please describe in your own words whether you think this space has or has not been successful.

Use has not been at the level expected

3. If there was anything that you could have changed in the project, what would it be?

Increased visibility

4. You have reached the end of the survey. Thank you for your participation. If you would like to receive a copy of these results please provide us with an email address below.

4. You have reached the e... | Email:	swaller@lsu.edu
4. You have reached the e... | Comments	(No response)

APPENDIX I

SURVEY: LSU DESIGNER S MICHAEL EVANS

A Designer and an Administrator Survey of the Programmatic Elements of Residential Campus Courtyards

Filled Tuesday, March 08, 2011

Page 1

Welcome to the designer and administrator survey of the various programmatic elements of residential campus courtyards. We appreciate you taking the time to participate in this research.
The survey consists of 27 concise questions and will take approximately 20-30 minutes to complete. If you are unable to complete the survey in the first sitting, you may exit the survey and your responses will be saved automatically pending your return.
In order for this survey to be a success, we need your honest responses. The information and responses will be linked to your identity.. Results of this research are available upon request at the end of the survey.
For questions regarding your rights as a participant in human subjects research, please contact the Mississippi State University Office of Regulatory Compliance at (662) 325-3994 or via email at irb@research.msstate.edu. If you have questions or comments about the survey, please contact Tariq Mahadin at tkm73@msstate.edu or Cory Gallo at cgallo@lalc.msstate.edu.
Thanks again for your participation in contributing to the success of this research.

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Section One: Demographics

1. What is your name?

S Michael Evans

2. What is your highest level of Education?

B Arch

3. What is your educational background?

Architecture

4. Do you have a professional registration or license title?

Architecture - Virginia and many other states

5. What was your role related to the project?

Design Principal

6. What was the budget for this project and how was it funded?

$38MRevenue Bonds

7. Please select all individuals or groups that were involved during the program development / Design process.

Architect, Campus planner, Civil Engineer, Landscape Architect, Project Manager, Students, University Facilities Staff, University Housing Staff

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Section Two: Classification

1. Please rank the following major design themes in terms of importance for developing the programmatic elements and site design.
(Note: please rank the design themes using each number only once, with number 1 as the most important and number 4 as the least important)

1. Please rank the follow... | Aesthetics	2
1. Please rank the follow... | Social Activities	3
1. Please rank the follow... | Student Learning	1
1. Please rank the follow... | Sustainability	4

2. Please rank the following programmatic elements on a scale from 1 – 14 according to their level of consideration on the project:
(Note: please rank using each number only once, with number 1 as the most important and number 14 as the least important)

2. Please rank the follow... | Energy Efficient Elements: Providing design concep...	10
2. Please rank the follow... | Landscape Furniture: Providing seating areas, tras...	9
2. Please rank the follow... | Native / Adaptive Plants: Plants that are adapted ...	11
2. Please rank the follow... | Outdoor Classrooms: Suitable places for users to h...	12
2. Please rank the follow... | Outdoor Dining Areas: Providing suitable facilitie...	4
2. Please rank the follow... | Outdoor Laboratory: Intentionally providing elemen...	13
2. Please rank the follow... | Pedestrian Walks: Providing sidewalks for users to...	3
2. Please rank the follow... | Recreational Areas: Providing places for physical ...	2
2. Please rank the follow... | Safety Features: Providing sufficient lighting for...	7
2. Please rank the follow... | Shaded Areas: Providing canopy trees, gazebos, etc...	5
2. Please rank the follow... | Special Elements: Providing water features, sculpt...	6
2. Please rank the follow... | Storm-water Management Facilities: Managing storm-...	8
2. Please rank the follow... | Studying and Socializing Areas: Suitable places fo...	1
2. Please rank the follow... | Water Efficient Elements: Providing reuse or effic...	14

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Section Three: Clarification

Please respond to the following questions by answering if each programmatic element was implemented on the site and why or why not.

1. Energy Efficient Elements: Providing design concepts for reducing energy use, such as solar systems, or efficient lighting.
A. Was it implemented on site?

Yes

B. Why or why not?

Basic design requirement

2. Landscape Furniture: Providing seating areas, trash cans, light units, benches, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

User Needs

3. Native / Adaptive Plants: Plants that are adapted to growing in the region without irrigation or fertilizers.
A. Was it implemented on site?

Yes

B. Why or why not?

Campus design standards

4. Outdoor Classrooms: Suitable places for users to hold classes.
A. Was it implemented on site?

No

B. Why or why not?

Not desired

5. Outdoor Dining Areas: Providing suitable facilities for users to dine outside.
A. Was it implemented on site?

Yes

B. Why or why not?

User Needs, exterior seating area close to vending

6. Outdoor Laboratory: Intentionally providing elements that educate the users.
A. Was it implemented on site?

No

B. Why or why not?

Budget

7. Pedestrian Walks: Providing sidewalks for users to recreationally jog or walk.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation

8. Recreational Areas: Providing places for physical activities such as volleyball, Frisbee, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

Designer Recommendation

9. Safety Features: Providing sufficient lighting for visibility and/or other security systems.
A. Was it implemented on site?

Yes

B. Why or why not?

Campus standards

10. Shaded Areas: Providing canopy trees, gazebos, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

User Needs

11. Special Elements: Providing water features, sculptural figures, art work, murals, etc.
A. Was it implemented on site?

Yes

B. Why or why not?

State mandate

12. Storm-water Management Facilities: Managing storm-water quality and quantity on site.
A. Was it implemented on site?

No

B. Why or why not?

Campus wide solution

13. Studying and Socializing Areas: Suitable places for users to study and socially interact.
A. Was it implemented on site?

Yes

B. Why or why not?

User Needs

14. Water Efficient Elements: Providing reuse or efficient irrigation.
A. Was it implemented on site?

No

B. Why or why not?

Budget

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Section Four: Elaboration

1. Please describe in your own words if this project has fulfilled your original expectations.

Generally, yes. The two colleges are of a small scale, enclose private exterior space, and shape a larger public space

2. Please describe in your own words whether you think this space has or has not been successful.

The two spaces are successful, but could be better!

3. If there was anything that you could have changed in the project, what would it be?

More shade in the private exterior spaces, better seating areas and furnishings

4. You have reached the end of the survey. Thank you for your participation. If you would like to receive a copy of these results please provide us with an email address below.

4. You have reached the e... | Email:	(No response)
4. You have reached the e... | Comments	Other elements to survey would include: GSF per bed Type of units GSF of common areas RA ratios Faculty involvement Academic success compared to other residence halls Sense of belonging Identity between colleges Thanks. Sorry it took so long for me to respond!

APPENDIX J

IRB APPROVAL LETTER

February 11, 2011

Tariq Mahadin
115 Kenswick Court
Starkville, MS 39759

RE: IRB Study #11-021: A Designer and an Administrator Survey of the Programmatic Elements of Residential Campus Courtyards

Dear Mr. Mahadin:

This email serves as official documentation that the above referenced project was reviewed and approved via administrative review on 2/11/2011 in accordance with 45 CFR 46.101(b)(2). Continuing review is not necessary for this project. However, any modification to the project must be reviewed and approved by the IRB prior to implementation. Any failure to adhere to the approved protocol could result in suspension or termination of your project. The IRB reserves the right, at anytime during the project period, to observe you and the additional researchers on this project.

Please note that the MSU IRB is in the process of seeking accreditation for our human subjects protection program. As a result of these ! efforts, you will likely notice many changes in the IRB's policies and procedures in the coming months. These changes will be posted online at http://www.orc.msstate.edu/human/aahrpp.php. The first of these changes is the implementation of an approval stamp for consent forms. The approval stamp will assist in ensuring the IRB approved version of the consent form is used in the actual conduct of research. Your stamped consent form will be attached in a separate email.

A signed formal approval letter will only be mailed at your request. Please refer to your IRB number (#11-021) when contacting our office regarding this application.

Thank you for your cooperation and good luck to you in conducting this research project. If you have questions or concerns, please contact me at cwilliams@research.msstate.edu or call 662-325-5220.

Sincerely,

Christine Williams, CIP
IRB Compliance Administrator

cc: Cory Gallo (Advisor)