LSU AgCenter

The Burden Center

MASTER PLAN

THE PORTICO GROUP

LSU AgCenter
The Burden Center

Master Plan

November 1, 2009

Prepared by:

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With:

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Executive Summary

The master plan for the Burden Center creates a unified vision for the property and its activity centers. It honors the legacy of Steele Burden, the Center's benefactor, by proposing a botanic garden destination for the citizens of Baton Rouge Parrish and establishing the Center as the nation's premier horticultural research facility.

Creating a Unified Whole

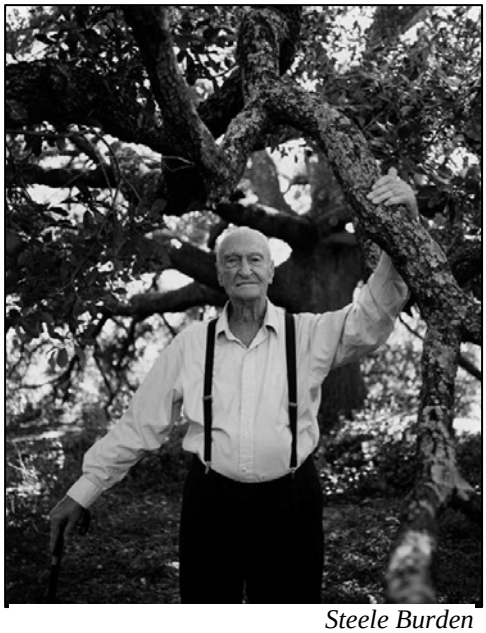
The Burden Center is composed of three destinations and points of activity that reflect the past, present and future of agriculture in Louisiana. The LSU Rural Life Museum represents the 18th and 19th century plantation era in Louisiana history. The LSU AgCenter's Botanic Garden represents present day horticulture through its display and demonstration gardens, and the LSU AgCenter Ornamental & Turf and Food & Fiber Plant Research Facilities seek to discover a sustainable agricultural future.

A new entry road and trail network ties the site together and creates a legible circulation system for the visitor. It clearly leads to the Botanic Garden where the visitor is introduced to the offerings available at the Burden Center. The road continues across the existing bridge and alongside the food and fiber research fields to the second visitor destination - the Rural Life Museum and Windrush Gardens. The Ornamental & Turf Research Facility is located north of Interstate 10 and is accessed by a separate service drive generally not open to the public.

Continuing the Legacy of Steele Burden

Steele Burden's vision was to preserve his family property as a rural agricultural setting and retreat for the citizens of Baton Rouge Parish. Windrush Gardens was his life's work - an interpretation and expression of Southern living through the development of formal gardens around his childhood home, studio and agricultural outbuildings.

The master plan leaves intact Steele's design for Windrush Gardens, while proposing modest changes to the recently adopted master plan for the Rural Life Museum. Modifications focus on the design of the proposed parking lot and the event garden at the transition from the Museum into Windrush Gardens.



Steele Burden

The Burden Center master plan incorporates the existing agricultural research fields and Steele's perimeter road system encircling the meadows. Plan refinements to the lands surrounding the Barton Arboretum include expansion into the meadow to the west, made possible by the removal of public automobile access on the last 300 yards of the Burden Center Road.

Establishing a Public Destination

The area south of the existing bridge, near Essen Lane, is where the majority of master plan improvements are proposed. The Botanic Garden is envisioned as a significant public destination. Its three proposed components are the Entry Gardens, the Extension and Research Headquarters, the Louisiana Garden Center, and the Terrace Gardens and Conference Center. These elements are designed and programmed to establish a center of cooperative extension activities, a site of hands on learning, and a place of respite and beauty.

The Ag Center will share the knowledge it has gained through its research activities with the public by providing a destination immersed in the beauty of plants. The gathering places - such as the proposed expansion of conference facilities - will provide the setting for the Center's educational programs and events.

The design builds on the significant existing assets of the Burden Center: the Ione E. Burden Conference Center, the Steele Burden Orangerie, the International Rose Test Garden and the live oak / crepe myrtle allee lining the existing entry drive.

The plan proposes the relocation of the existing sewerage pump station and removal of the road separating the Orangerie from the Rose Garden to create a new entry drive. The drive intuitively leads the visitor to the Botanic Garden entry, public parking, and the headquarters building, home to research and parish extension service offices. Together with the Master Gardener Education Center, these buildings frame a central crescent demonstration garden. The demonstration garden is linked to the terrace gardens along a central axial sight line, through the existing rose garden to the front entrance of the Orangerie.

Supporting "the Best Horticultural Research Facility in the Country"

The research fields and woodlands north and south of Interstate 10 remain the site of active research pertaining to agricultural food crops, ornamental horticulture and forest health and restoration (including the control and management of invasive plant species). New office, lab and greenhouse space will support the on-site researchers. Current research activities include food, fiber and ornamental and turfgrass crops.

Vegetable studies include environmental modification, solarization/plasticulture technology and sustainable practices for small/medium scale producers for fresh market. The sustainable agriculture research and extension program (SARE PDP) includes research projects on organic vegetable production, summer/winter cover crops, sustainable production practices, and variety trials. Studies on sweet potatoes focus on disease and insect research. Extension demonstration projects include sustainable agriculture field days and organic vegetable production demonstrations. Greenhouse vegetable crop research includes work on tomato fertility and its relationship to greencore. Researchers are studying the fertility of hydroponic lettuce and its effect on growth and yield.

Research on fruit production includes evaluating strawberry and blueberry varieties for quality and yield, cultural practices and effect on fruit quality and increasing harvest length, early and late. Mayhaw, an important native fruit used in processing genotypes, is being evaluated for nutritive value. Fig variety and breeding selection evaluations are being made and selections 'O'Rourke', Champagne and Tiger' were recently released. Other fruit research includes low chill peach variety evaluations for coastal areas and evaluation of thirty pawpaw genotypes for fruit production and landscape use.

Turfgrass research includes the national turfgrass evaluation program establishment and plant nutrition research, weed control and root research. Other turf related programs include turfgrass establishment on levees in New Orleans – U.S. Army Corps of Engineers and effect of carbon dioxide enhancement on turfgrass heat tolerance.

Ornamental research includes work on greenhouse, nursery and landscape horticulture. Current greenhouse research is investigating: biodegradable containers in greenhouse production and landscape establishment, the effect of heat stress on bedding plants and development of a method for determining heat tolerance, and particle size and distribution of various wood products for use as a soilless substrate. Phytoremediation of various pollutants with selected plant material is being studied in cooperation with local chemical companies. Landscape evaluation of roses, crape myrtle and bedding plants is an ongoing project to develop recommendations for the production and landscape industry. Weed control in horticultural crops is also another significant area of research.

Vision for the Future

The results of the master planning efforts will allow the Burden Center to move forward with a common vision for the property, organization and the research and outreach programs it offers to stakeholders and the public. The LSU AgCenter, LSU Rural Life Museum, the Burden Foundation and the Burden Horticultural Society are united in their commitment to extending the legacy and dreams of the Center's benefactor, the Burden Family.

I-10
I-12
Possible Wetland Creation Area
Burden's Bluff
North Woods Loop Trail
Burden Woods
Stratford Ave
Barton Arboretum
Barton Arboretum Expansion
Black Swamp Trail
East Perimeter Road
Sholar Dr.
Rainbow Dr.
LSU AgCenter
Burden Woods Forestry Research
Ollie Steele Burden Manor
Peggy Street
Overton Street
LSU
Rural Life Museum
Magnolia Beech Trail
LSU AgCenter
Ornamental & Turf Research Facility
United Plaza Blvd.
LSU AgCenter
Food & Fiber Research
Burden Woods
Burden Lane
Windrush Gardens
Pond
Lake Efferson
Burden Center Road
Trees & Trails
N Essen Heights Ct.
Terrace Gardens & Conference Center
Louisiana Garden Center
Burden Woods Forest Reconstruction
Camelia & Azalea Gardens
LSU AgCenter
Botanic Garden
Essen Lane
One Calais Ave.
Shops, Maintenance & Storage
Entry
Essen Park
Relocated Sewer Pump Station
Ward Creek Flood Channel

LSU AgCenter & The Burden Foundation

The Burden Center

Overall Site Plan

MASTER PLAN

November 1, 2009

0 300' 600' 1200'

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Master Plan

Introduction

The Burden Center

In the spring of 2009, The LSU Agricultural Center and the LSU Foundation hired the Portico Group, a firm of landscape architects, architects, and interpretive planners to provide the unifying aesthetic vision and a master plan for the Burden Center. The firm provided a cohesive plan that emphasizes the research, extension and education components of the Burden Center in combination with the public garden spaces.

Site tour during initial workshop in March 2009

The foresight of the Burden family in developing and supporting the Burden Center and the Rural Life Museum have created a unique opportunity to provide the public with a destination for exploring the history, beauty and horticultural resources of southern Louisiana. No other facility in Louisiana embodies such a wide array of elements and combination of resources as does the Burden Center. The development of a Master Plan for the Burden Center has brought these elements and resources together to produce a jewel that has long been considered a diamond in the rough.

Presenting ideas and gathering feedback during the first workshop in March 2009

Accomplishing this vision of uniting the elements that make up the physical and natural setting that is the Burden Center requires uniting those who have an interest in its future. The fact that most of these parties work with or are part of the LSU System also provides the Burden Center with another unique opportunity to more efficiently bring this project to fruition. The strategy of the master plan was to work with existing Burden resources: the Burden Horticultural Society, the Burden family, the Burden Foundation, the LSU AgCenter, the LSU AgCenter Master Gardeners, LSU A&M College, The Burden Foundation, the Rural Life Museum and Friends of the Rural Life Museum. The Burden Horticultural Society spearheaded the effort.

Introduction

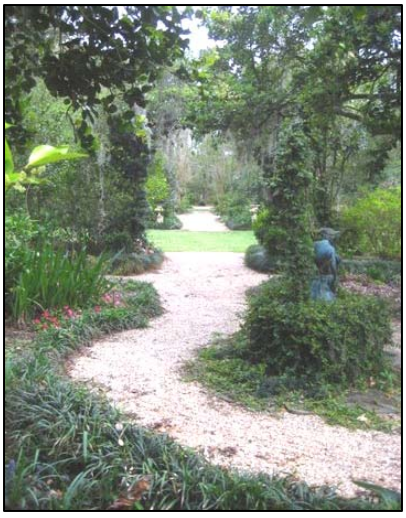
History of Burden and Importance of the Master Plan

William S. Pike Sr., an early settler in Baton Rouge, owned considerable property in East Baton Rouge Parish. In the early 19th century, he bequeathed land to his niece, Emma Barbee. When Emma married John Burden in 1856, the two built a home on the property and named the estate Windrush, after a scenic area in John's native country of England.

The couple had a son, William Pike Burden Sr., who married Ollie Brice Steele. That couple had three children: Ione Easter, William Pike Jr. and Steele Burden. All three siblings lived on the property until their deaths. They were prominent philanthropists during the 20th century, contributing their skills and money to Baton Rouge, LSU and favorite charities. They also were extremely concerned for the preservation of their beautiful land and wanted to ensure its continuance. In the 1960s, the Burden family created the Burden Foundation to assist in the management, development and preservation of the land and its invaluable resources.

Steele Burden, a master landscaper and arborist, designed and facilitated much of Baton Rouge's green spaces. From the LSU campus to countless homes across Baton Rouge and the state, Steele's work spread much further than the land that is now called the Burden Center. It is also evident in historic Windrush Gardens, which will convince you this man had a deep connection with all that is green.

Steele Burden used the landscape to define open, outdoor spaces in the historic garden style. His very specific placement of trees and shrubbery was intended to lead the eyes to featured plants, sculpture and statuary. He used ornamental trees and shrubs to accentuate each space and stimulate the visual and oftentimes, the olfactory senses. Steele Burden's choice of foliage wasn't always for beauty, but often for heartiness and longevity. Steele was an artist – the outdoors was his canvas, and the plants were his paint. The greatest concentration of this artist's work is on perpetual exhibit at the Burden Center.



Windrush Gardens

Introduction

The Burden family began donating the property that is now called the Burden Center to the LSU Agricultural Center and LSU A&M in 1966, with the final parcel donated in 1992. Thanks to strict guidelines for land use, the land at the Burden Center will never see the effects of urban development. Maintaining the atmosphere of serenity and tranquility was as important to the Burdens decades ago as it is to the stewards of the land and the descendants of the Burden family today.

Aerial photograph: Current Burden Center Facility

The Burden Center consists of 440 acres of green space in the heart of Louisiana's largest city, Baton Rouge, and is conveniently located off of Interstate 10. The Burden Center comprises many elements: horticulture research and extension, the All-America Rose Garden, the Steele Burden Memorial Orangerie, the Ione Burden Conference Center, Trees and Trails, the Barton Arboretum, the camellia collection, the Memorial Live Oak Garden, Windrush Gardens, the Rural Life Museum and other specialized gardens. The Rural Life Museum is currently implementing a portion of its finished master plan.

The Master Plan for the Burden Center builds on the existing framework created by the Burden family to create a unifying aesthetic vision and conceptual design for the entire Burden Center. The Master Plan connects all of the elements that comprise the Burden Center into a unified destination that provides a welcoming and engaging experience for those who conduct research and extension work and for those who visit the public spaces. This Master Plan also contains a detailed description for the LSU AgCenter Botanic Garden, the southern gateway into the Burden Center.

Aerial Photograph - Current Burden Center Facility

Management of the Burden Center

The LSU Agricultural Center

The LSU Agricultural Center plays an integral role in supporting agricultural industries, sustaining rural areas and encouraging efficient use of resources through research and educational programs conducted by its experiment station and extension service.

The Louisiana Agricultural Experiment Station is responsible for research in agriculture and resource development, forestry, wildlife and fisheries, home economics, food science and related areas. It seeks to enhance the quality of life for people through basic and applied research that identifies and develops the best use of natural resources, conserves and protects the environment, permits further development of new and existing agricultural and related enterprises, and develops human and community resources in rural and urban areas.

The Louisiana Cooperative Extension Service is responsible for statewide, off-campus, informal teaching of agricultural and natural resource technology and management techniques as well as other programs focused on family and consumer sciences, youth development, overall improvement of the state's economy and efficient use of community and personal resources. The Extension Service helps the people of Louisiana – both rural and urban – improve their lives through an educational process that uses research-based knowledge focused on issues and needs.

At the Burden Center, the LSU AgCenter manages approximately 420 of the 440 acres. As one of its 20 statewide experiment stations it has been assigned the role of providing office space and headquarters for East Baton Rouge Extension Offices.

LSU A&M

Louisiana State University and Agricultural & Mechanical College had its origin in certain land grants made by the United States government in 1806, 1811 and 1827 for use as a seminary of learning. In 1853, the Louisiana General Assembly established the Seminary of Learning of the State of Louisiana near Pineville. The institution opened January 2, 1860, with Col. William Tecumseh Sherman as superintendent. The school closed June 30, 1861, because of the Civil War. It reopened on April 1, 1862 but was again closed on April 23, 1863 because of the invasion of the Red River Valley by the Federal army.

The seminary reopened on October 2, 1865, only to burn down four years later. On November 1, 1869, the institution resumed its exercises in Baton Rouge, where it has since remained. In 1870, the name of the institution was changed to Louisiana State University.

Louisiana State Agricultural & Mechanical College was established by an act of the legislature, approved on April 7, 1874, to carry out the United States Morrill Act of 1862, granting lands for this purpose. It opened in New Orleans on June 1, 1874, where it remained until it merged with Louisiana State University in 1877.

As the flagship institution of the state, the vision of Louisiana State University is a leading doctoral/research-extensive university, challenging undergraduate and graduate students to achieve the highest levels of intellectual and personal development. Designated as both a land-grant and sea-grant institution, the mission of Louisiana State University is the generation, preservation, dissemination and application of knowledge and cultivation of the arts.

LSU A & M operates the Rural Life Museum on an approximately 18 acre parcel located in the north central portion of the Burden Center.

Goals of the Master Plan

The need for a conceptual design and master plan stems from the desire to unify the vision of the Burden family and all of those who have supported the Burden vision. This vision stipulated that the property be a "green area" to be enjoyed by the public; showcase a Rural Life Museum; conduct horticultural and agronomic research and outreach; and maintain formal and informal gardens and an urban forest.

The Master Plan will help share the Burden vision with the public. It will provide a more cohesive facility for use by public and private groups and by LSU. Implementing the master plan will help provide a more welcoming and enlightening experience to all those who work at and those who visit the Burden Center.

The development of the Master Plan will be instrumental in the primary mission of the Burden Center, which is to serve as an educational center for the appreciation of Louisiana's horticultural and agronomic history and natural surroundings, and a more powerful outreach vehicle for the dissemination of research by the LSU Agricultural Center and LSU A&M.

The Burden Center identified eight goals at the beginning of the process to guide the efforts of the master plan:

1. **Create a unified whole** for the organization and visitor experience of the site

2. **Maintain and improve** the site as an **active research** and extension station

3. **Recognize** the **significant cultural history** of the site

4. **Establish** a **destination** and core experience at the southern end of the site incorporating:
   - Specialty gardens
   - Children's garden
   - "Best of bedding plants" garden
   - Master gardener training
   - State of the art headhouse and greenhouse complex
   - Space for plant societies and plant exhibits

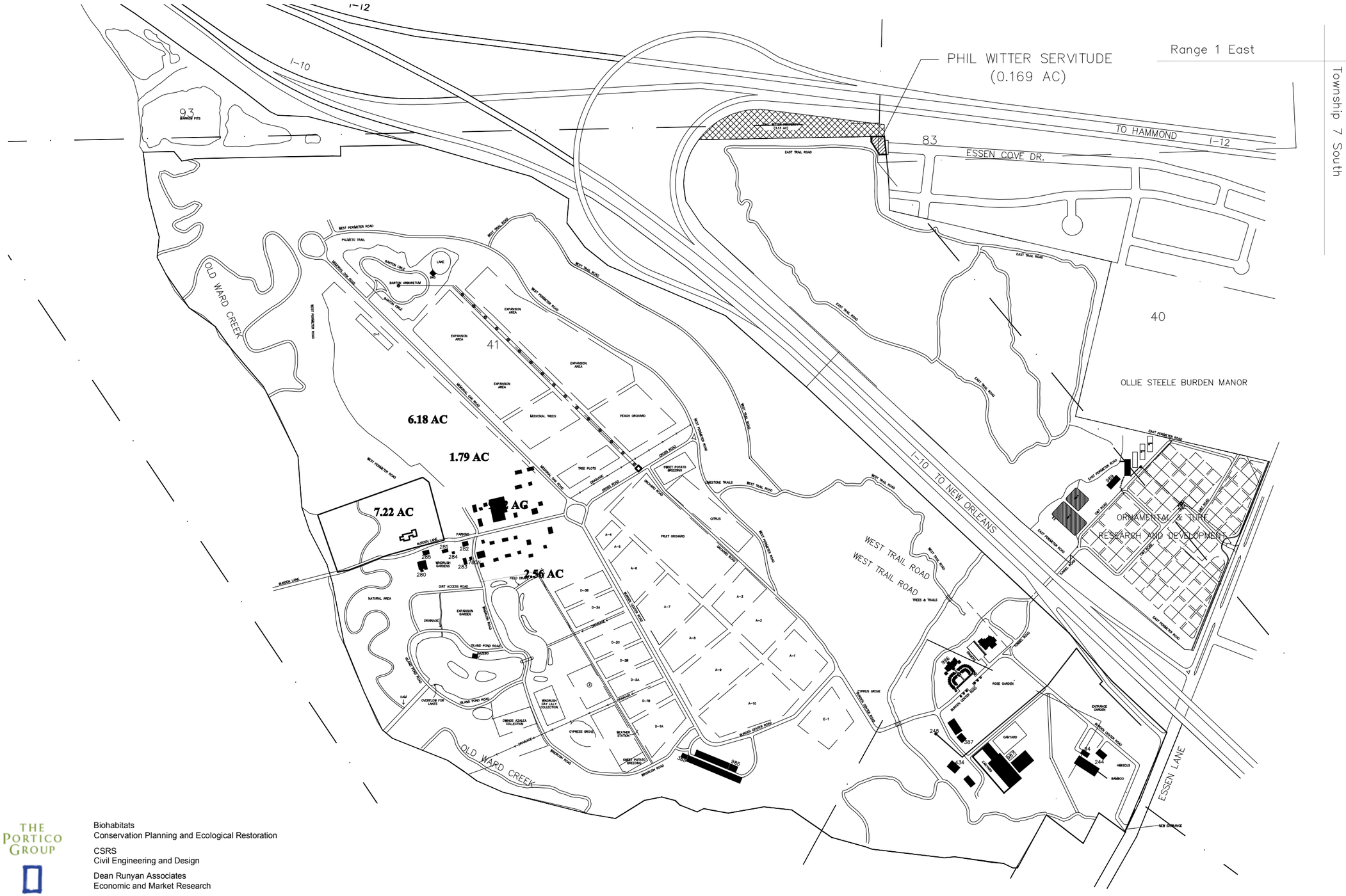
5. **Create** a powerful **entry sequence** and a legible circulation system
   - Define a gateway and sense of entry
   - Leave behind the bustle of highway traffic and immerse visitors in the beauty of the gardens and natural landscape
   - Consider wayfinding in the design of trails and roadways
   - Develop easily understood loop trails of varying length

6. **Define a garden and collections approach** that reflects the heritage of **southern Louisiana**, by
   - Utilizing native and regionally adapted plants
   - Creating a distinctive and ordered planting design, identifying and protecting significant existing trees and habitats
   - Developing specific planting and design elements that are consistent throughout

7. **Restructure** the site's **natural systems**
   - Introduce storm water runoff into the abandoned oxbows of Ward Creek, adjacent wetlands, and the freeway borrow pits to cleanse the water while enhancing riparian habitat
   - Eliminate invasive species through responsible forestry techniques

8. **Address need for earned income** incorporating opportunities by including:
   - Conference facilities
   - Special events
   - Admissions

Members of the Burden Center Core Coordinating Team at the Master Plan workshop in March 2009.



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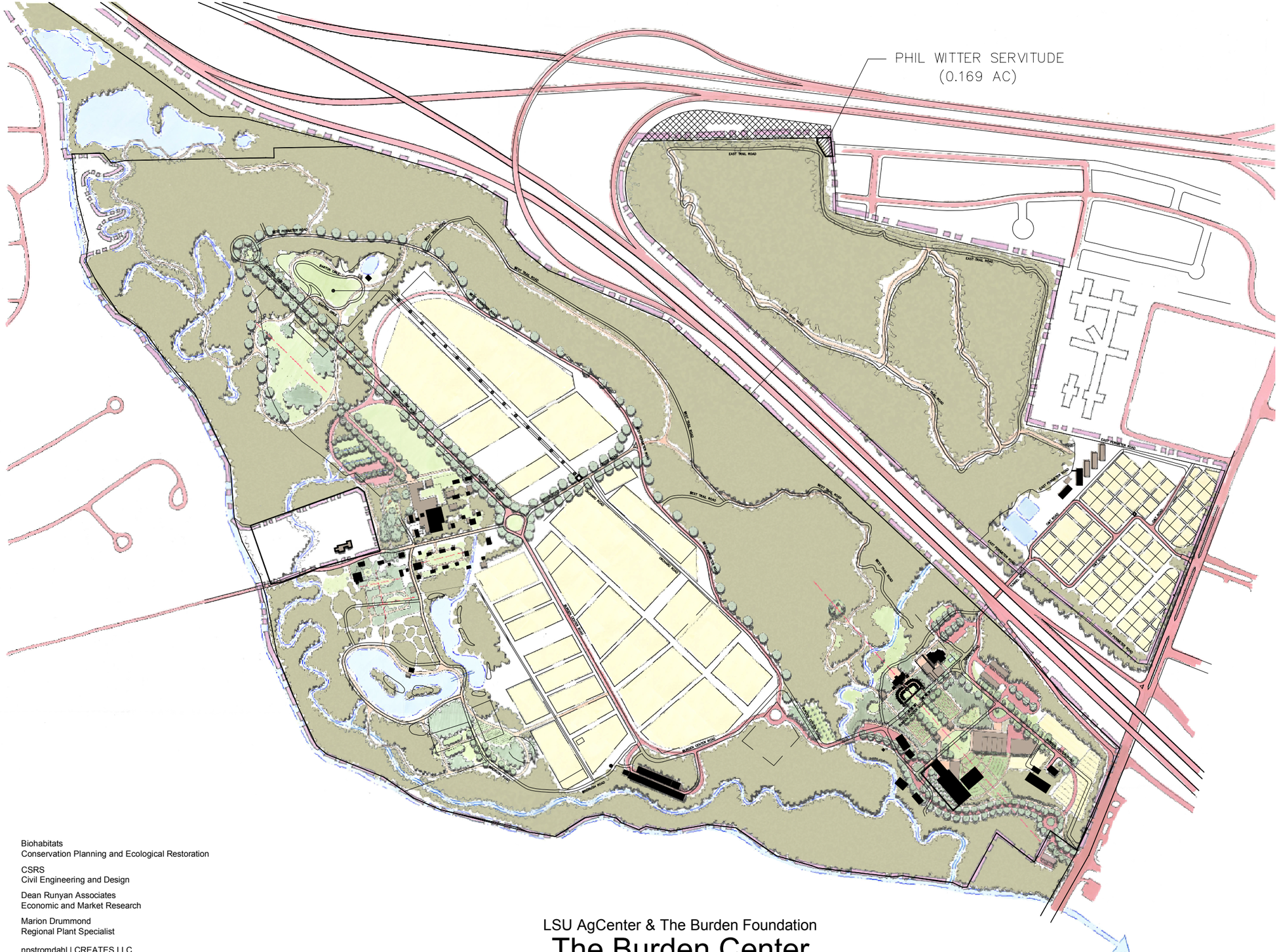
The Burden Center

Existing Conditions

MASTER PLAN

November 1, 2009

0 300' 600' 1200' N



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Existing Conditions & Proposed Plan

MASTER PLAN

November 1, 2009

0 300' 600' 1200' N

Interpretive Approach

Consider

The Burden Center is made up of property donated over time to Louisiana State University and the LSU AgCenter. It was the ancestral home of the Burden family and the centerpiece of Steele Burden's landscape design practice. It was here he first exercised his knowledge of plants, place and desire for classic beauty. Over time, Steele expanded his garden vision beyond the classic Windrush Gardens surrounding his home to include the totality of the fields and forests that make up what is now the Burden Center.

Steele Burden had a vision—
that respected the historical life-ways of early 18th and 19th century Louisiana as reflected in the Rural Life Museum and Windrush Gardens.

Mr. Burden valued knowledge—
that with his sister, Ione Burden, he put in place a foundation and site for research and education to serve Louisiana State University and the community of Baton Rouge through demonstration, "So that they would have a green place..."

And most important:
Steele Burden understood the value of beauty —
based on a designed landscape and plants, structured in classic order. As a garden or forest, he understood the value of these "forms of nature" to the human condition. It is the value of plants that is the legacy made manifest in current and all future elements that make up the Burden Center.

The Burden Center is one of 20 research stations serving the agricultural and natural resources needs of the LSU AgCenter and the citizens of Louisiana through research and extension services. What makes the Center *unique*, as a part of LSU AgCenter, isn't the research that occurs there, but Steele Burden's expectation that nature should be made available to everyone. That beautiful gardens and plants should be a part of their lives—here.

Interpretive Approach

The Burden Center is about the historic continuum of agricultural practices in the State of Louisiana. As major components of the Burden Center:

- The Rural Life Museum and Windrush Gardens convey the past.
- The LSU AgCenter Botanic Garden embodies the present.
- The LSU AgCenter Plant Research Facilities (including Food & Fiber Research, Ornamental & Turfgrass Research and Burden Woods Forestry Research) look toward the future.

Key Project Questions

Planning is a process of research, evaluation, testing and documentation. The goal of the planning process is to define the institution's future plans and document their purpose, what they want to achieve and why. One tool in the research and evaluation process is to ask a series of Key Questions, the answers of which are important to a successful plan. Ideally the answers to these are clear and concise. However, it is more the process of asking the questions and the multitude of answers provided that inform the planning process and outcome. The Burden Center is a complex organization and in many cases there is more than one answer. As a list, the Key Questions are:

- Why are you doing this? ***MISSION***
- How do you define ***SUCCESS***?
- Who is it for? ***AUDIENCE***
- What is it about? ***SUBJECT***
- What do you intend to say? ***MESSAGE***
- What is your point of view? ***VOICE***
- How will you organize it? ***ORDER***
- What's the big idea? ***CONCEPT***

The answers are outlined below.

Mission

The Mission of the Burden Center is to promote the importance of plants and their environment to the physical, mental and spiritual well being of the citizens of Baton Rouge, the state of Louisiana, and the world.

Goals

The Center shall accomplish this mission through:

- Performing research and facilitating the research of others to develop **sustainable** plants and landscapes for agriculture and horticulture.

- Educating the community through **demonstration** of the value of this research and these plants by enabling direct access to these fields and gardens.

- Bringing people back to nature by providing a diversity of green places and special facilities to engage in **conversation**, create a **community** and to **commune** with nature.

Vision, the greatest goal and your definition of Success.

And similar to the way Steele Burden sought to improve with every garden he designed, *it is the vision of the Burden Center to become the best horticultural research and outreach facility in the United States, making an impact on the world.*

Audience

Through the identification of a specific audience to serve, and understanding their attributes, an institution is able to focus its resources and messages, thereby servicing its mission. the Burden Center has multiple facilities, functions, and based on its goals, multiple audiences. As each element of the Burden Center is designed, it is important to define how it meets the institution's mission, and to identify the audience it serves.

As a mission driven organization who has defined part of its success as being financially viable there are two primary audience groups. Economic and market evaluation will further categorize these by factors such as demographics, distance and affinity interests. But for future execution of planned elements there is a message centric audience and a sustainable institution audience.

Message Centric Audience

Who needs to hear the environmental message of the Burden Center? This is primarily an adult audience that is made up of first and second home buyers in the 27 to 40 year age range and who are likely to have young children. Though this group is not increasing in population, they are making an investment in their home, have an interest in the larger community and they are likely to have an affinity with the Center's messages. The second "message" audience is the next generation, children between the ages of 3 to 8 and their related care-giver(s). This is an age where time spent in "natural" environments can make a lasting impression.

Sustainable Institution Audience

The success of the Burden Center's mission requires that it be financially viable in the long run. The second and equally important audience includes those people who are 55

years old and older, may have retired and/or have time and resources available to commit to an institution. They typically have an affinity with the Center as a place and want to feel part of something valuable and part of a successful project.

Message

Messages are succinct statements of what you want your visitor to learn and take away with them. A main message is an encompassing statement that is repeatable (in so many words) by your visitor which demonstrates that "they got it!" The value of developing a main message isn't the "repeatability" of it, but that it includes only the most important topics. As future projects are proposed each should be required to demonstrate that they support the Burden Center's Main Message. This message is sometimes described as a statement made in a short elevator ride on your way to work, or over a neighboring fence—such as:

"I walked to north end of the Burden Center yesterday and the woods were great, it felt as though I'd left town. Later, while walking back through the plant trial garden I was reading about a research project and ... you know, I always knew how we rely on plants, for food, fuel and all...but never realized how they enrich our lives... After going to the Burden Center I realize that I can apply Burden's sense of beauty and the AgCenter's science in my own yard!"

Message Delivery

The goals are fulfilled, mission is accomplished, and the message delivered using many different media, such as your web page, the museum, programs and interpretive graphics. For the Burden Center this delivery includes creating accessible facilities such as the display gardens, research gardens, administrative and conference facilities that are sustainable, demonstrate horticultural best practices and draw people *to* the Burden Center and into its natural setting.

Voice

What is your point of view, how do you talk about yourself and how do you talk to others about the Burden Center? How you speak is a projection of the institution's personality based on the work of the institution and the perception you want to create and reinforce. This "voice" is found in all facets of presentation, most notably in the interpretive and program materials provided at the Burden Center. The Burden Center interpretive approach will speak with an 'authoritative' voice, conveying information based on the research completed at this station, the LSU AgCenter and the Louisiana State University. This is an appropriate counter and balance to the 'authentic' voice that is the LSU Rural Life Museum's.

Subject

The primary subject of the Burden Center is **plants**, their value to our natural surroundings and to people, both physically and spiritually. The point of connection may

be through landscape architecture, horticulture, agriculture, agronomy, ecology, or research, but this place is about the importance of plants.

Order and Concept

The order and organization of a visitor's experience is important both to make them feel confident in their environment and in delivering an institution's messages in a proscribed fashion. The concept or "big idea" is based on content and what is being conveyed in the main message. The combination of the concept and organization are part of the outcome of using an interpretive approach to the design.

For the Burden Center order and concept are the same. The interpretive approach uses the legacy of Steele Burden's landscape design, and an up to date approach to his vernacular architecture, as the basis for design concepts and method for organizing visitor flow within the current and new gardens, to visitor accommodations, and research facilities.

Identification and Way-finding System

One of the RFP goals for the master plan is to create a "unified whole." For the visitor this is an issue of *perception* not of operation. To reinforce that perception it is important that the Burden Center as a whole be understood as the primary destination. Once inside the Center the feeling will still be of a cohesive whole, while still guiding visitors to the distinct elements within the property and reinforcing the feeling that they have arrived at their chosen secondary destination within the larger Center. A sense of arrival and the ability to comfortably navigate the site will improve the visitor experience and increase positive feelings toward the Burden Center. All aspects of the design, from the layout of a field, the choice of a fence, to the construction of the simplest building have to be considered as part of the design reinforcement. One of the most important elements in the success of creating this perception will be the Burden Center's identification and way-finding system and its hierarchy of information. This system is a combination of repetitive form, graphic appearance and message order.

Entry/Major Site Identification

The first sign visitors see as they enter the facility needs to establish the **Burden Center** as a singular entity while identifying the sub-components within the site. Although there are many other sub-destinations, the sign should be as clear and un-complicated as possible, listing the four primary 'faces' of the Center:

The Destination	**The Burden Center**	Primary
Major Elements	Plant Research Facilities Botanic Garden Rural Life Museum Windrush Gardens	Secondary
Owner's Signature	LSU AgCenter/LSU	Tertiary

Major Elements

Signs for major site elements site elements will list the destination first, while keeping 'The Burden Center' as a site signature.

Element ID	**Ornamental & Turf Research Facility**	Primary
Site Signature	The Burden Center	Secondary
Owner's Signature	LSU AgCenter	Tertiary

Element ID	**Food & Fiber Research**	Primary
Site Signature	The Burden Center	Secondary
Owner's Signature	LSU AgCenter	Tertiary

Element ID	**Burden Woods Forestry Research**	Primary
Site Signature	The Burden Center	Secondary
Owner's Signature	LSU AgCenter	Tertiary

Element ID	**Botanic Garden**	Primary
Site Signature	The Burden Center	Secondary
Owner's Signature	LSU AgCenter	Tertiary

Element ID	**Rural Life Museum**	Primary
Site Signature	The Burden Center	Secondary
Owner's Signature	LSU	Tertiary

Element ID	**Windrush Gardens**	Primary
Site Signature	The Burden Center	Secondary
Owner's Signature	LSU AgCenter/LSU	Tertiary

Secondary Elements

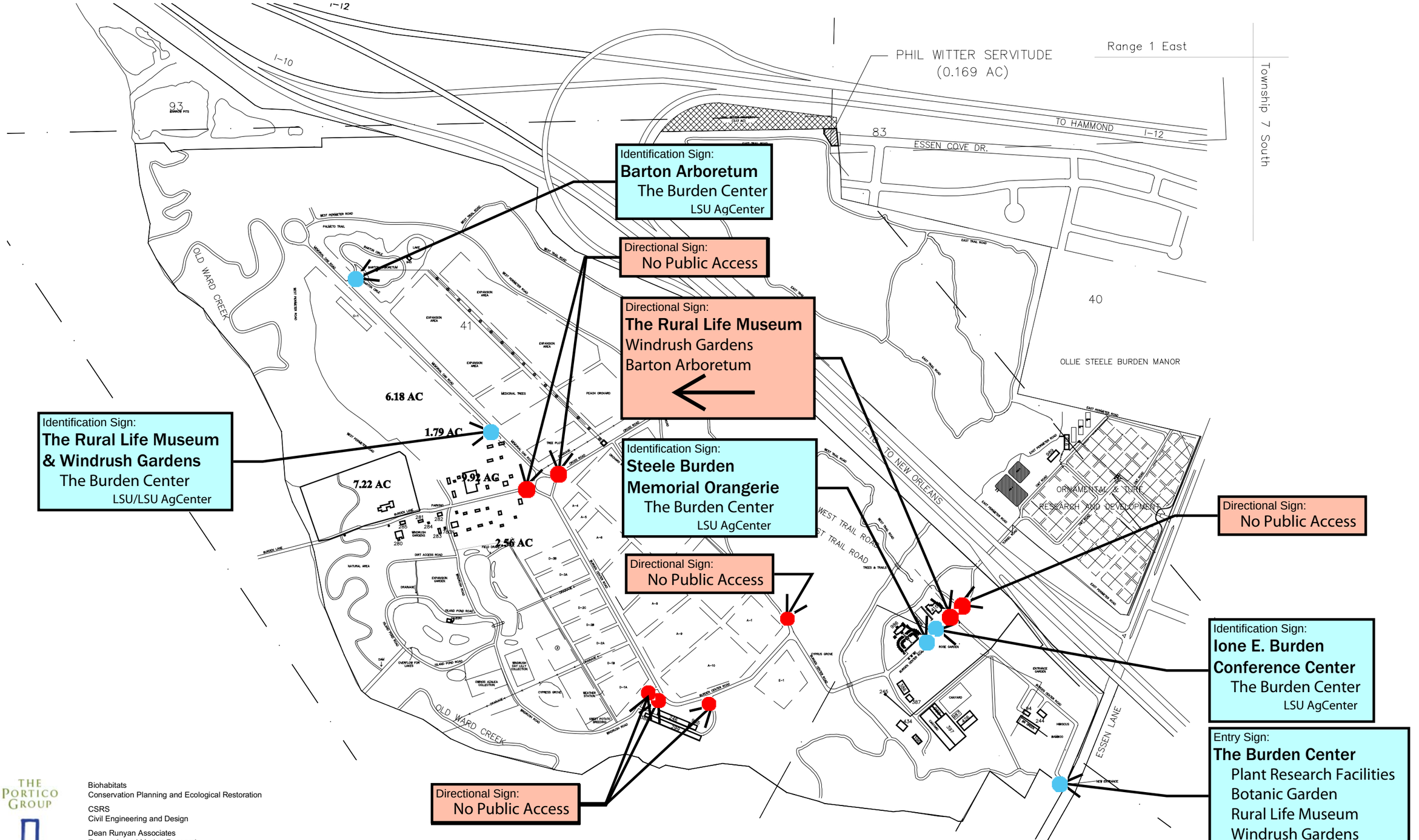
Although the secondary destinations are sub-elements of the major elements listed above, the signs that identify these destinations will follow the same site and owner signature as the primary signs. Hierarchy of destinations will be established by sign size and other graphic design cues. For example, the main sub-components of the Botanic Garden are the Louisiana Garden Center, Terrace Gardens & Conference Center, Barton Arboretum and the Burden Woods. Signs Identifying these destinations might be as follows:

Botanic Garden:

Element ID	**Louisiana Garden Center**	Primary
Site Signature	The Burden Center	Secondary
Owner's Signature	LSU AgCenter	Tertiary
Element ID	**Terrace Gardens & Conference Center**	Primary
Site Signature	The Burden Center	Secondary
Owner's Signature	LSU AgCenter	Tertiary
Element ID	**Barton Arboretum**	Primary
Site Signature	The Burden Center	Secondary
Owner's Signature	LSU AgCenter	Tertiary
Element ID	**Burden Woods**	Primary
Site Signature	The Burden Center	Secondary
Owner's Signature	LSU AgCenter	Tertiary

Other Destinations

Other destinations within the Center, like the Ione E. Burden Conference Center or the Master Gardener & Education Center, will also be identified using clear and legible signage.



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Research & Extension

LSU AgCenter & The Burden Foundation

The Burden Center

Wayfinding Plan - Existing Site

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November 1, 2009

0 300' 600' 1200' N

Site Opportunities

Rural Enclave

The 440 acre Burden Center property is a rural enclave in urban Baton Rouge. It is surrounded by ever expanding suburban land uses, busy traffic arterials and the Interstate 10 freeway. A forest green belt defines the agricultural fields and meadows while also screening the site from view of most of the surrounding development. This contributes to the sense of retreat and respite that visitors experience at the Center. The most visible manifestation of water on the site is the flood control ditch along the western boundary, replacing much of the water that once flowed through the historic meanders of Wards Creek.

Research fields showing the site's rural character

Surroundings contrast sharply with the site's interior

Allées of live oaks line many of the internal roadways

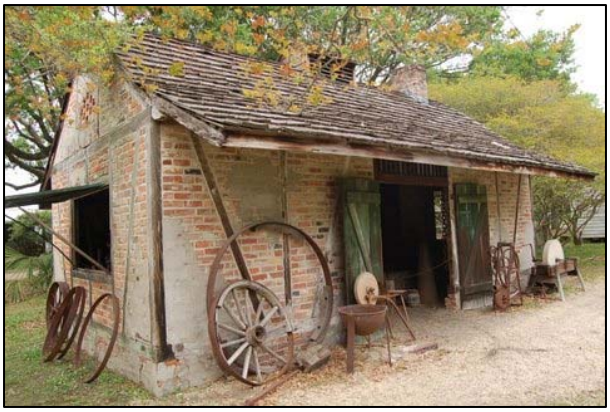
Ward Creek flood channel

Site Opportunities

Destinations

Several public destinations are now contained within the property, including the Ione E. Burden Conference Center, Rose Garden, Orangerie, Windrush Gardens, Rural Life Museum and Barton Arboretum. Windrush Gardens is the best surviving example of Steele Burden's residential scale garden design. His Rural Life Museum is a record of agrarian lifestyle, 18th and early 19th century vernacular architecture, and farm equipment and artifacts found during the plantation era in Louisiana.

Living History at the Rural Life Museum



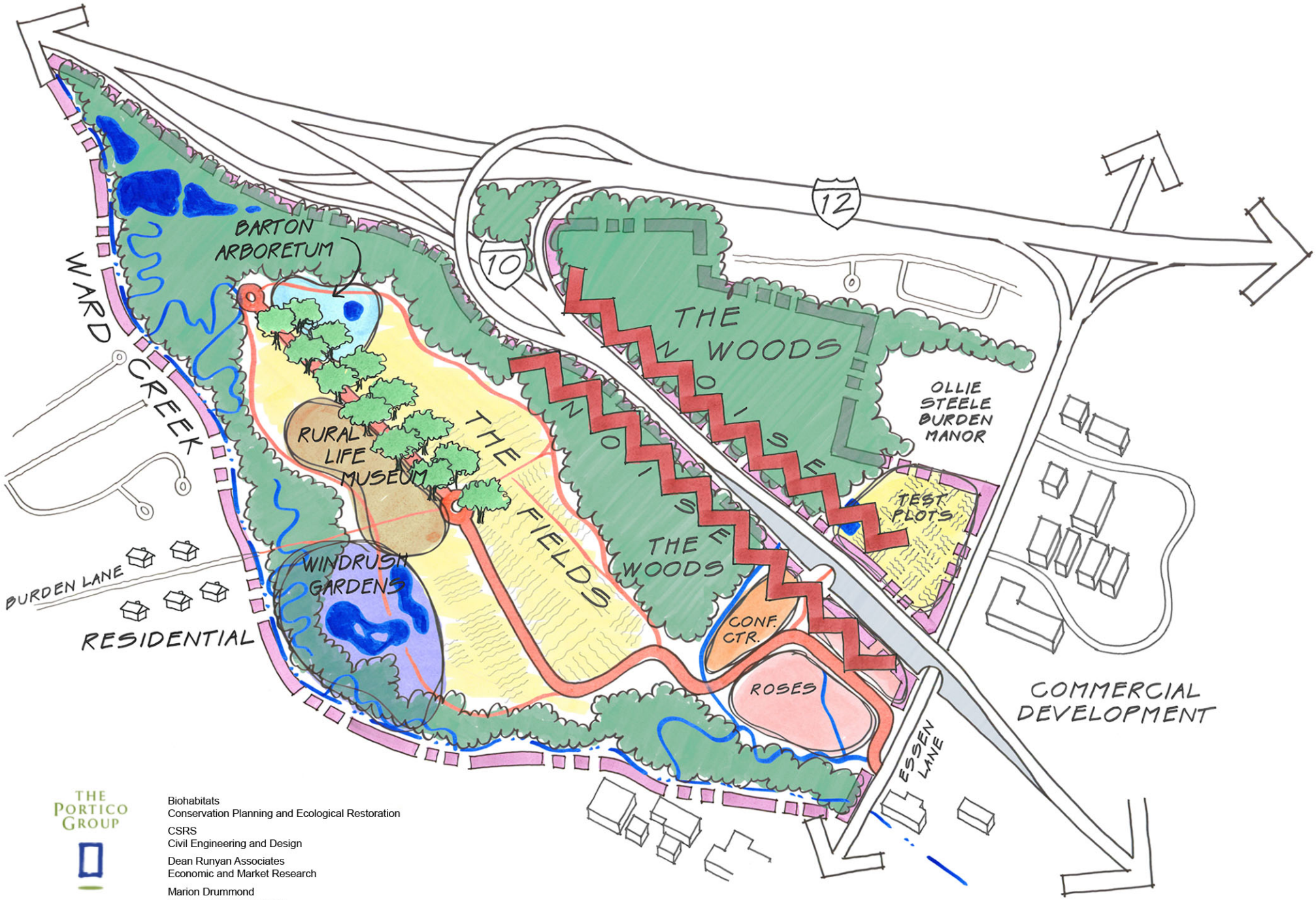
Vernacular Architecture at the Rural Life Museum

LSU AgCenter Research

A significant part of the property and its use by the LSU AgCenter are the food and fiber research area and activities within the central portion of the property and the ornamental and turf research area on the north side of Interstate 10. A variety of rotating food, fiber and horticultural crops are studied by faculty and graduate researchers in both locations, including sweet potatoes, corn, beans, cole crops, tomatoes, citrus, peaches, ornamental gingers, roses, bedding plants, woody ornamentals, turfgrass and weed control. Future research opportunities include more collaborative projects with the Plant Pathology, Entomology, Food Science and Renewable and Natural Resources departments. The close proximity of this research station to campus and the wide variety of facilities provide excellent opportunities for this type of collaborative research. Due to the fact that most of the property is located in the 100 year flood plain and contains various types of wetland areas, the Burden Center would be an excellent location to develop a research program that investigated wetland mitigation and other related areas of study. The approximately 200 acres of woodlands provides an incentive for studies in forest ecology and the urban/natural interface.

Master Gardener Training

The East Baton Rouge Parish Master Gardeners operate a number of volunteer activities related to master gardener training and the propagation and sale of plants at an annual plant sale. Proceeds go to support educational programs and garden maintenance at the Burden Center.



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Site Analysis

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LSU AgCenter
The Burden Center
Master Plan

Conceptual Organization

The master plan recognizes the Burden family's long connection to the land and the 440 acres that is the Burden Center. Furthermore, it honors Steele's wish to preserve rural life and agricultural heritage through its proposals to reconnect Louisianans with the site's gardens and museums, creeks and wetlands, forest and woodlands, and fields and meadows. The master plan achieves this through its proposal for a three part geographic and operational organization of the Burden Center:

- Plant Research Facilities
  - Food & Fiber Research
  - Ornamental & Turf Research
  - Burden Woods Forestry Research
- Botanic Garden
  - Louisiana Garden Center
  - Terrace Gardens and Conference Center
  - Barton Arboretum
  - Burden Woods
- Rural Life Museum/Windrush Gardens
  - Rural Life Museum
  - Windrush Gardens

LSU AgCenter Plant Research Facilities

In addition to the Food & Fiber Research in the central fields and the Ornamental & Turf Research north of 1-10, the Plant Research Facilities include a future office / research / museum site north of Interstate 10. The Plant Research Facility will continue its research and restoration activities in the post-Hurricane Gustav impacted North Burden Woods.

LSU AgCenter Botanic Garden

The Botanic Garden focuses on the public garden and extension and outreach programs of the LSU Ag Center. New buildings and gardens are organized around a central axis that begins at the existing Orangerie, and extends south to the entry drive. A new Extension and Research Headquarters Building houses visitor services and administrative and extension services offices. Framing the opposite side of the central lawn terrace and axial sight line is the Louisiana Garden Center with its master gardener training and propagation facilities. The third component is the Terrace Gardens and Conference Center. Surrounding the gardens and research fields is the green framework of the Burden Woods. The final component of the Botanic Garden is the Barton Arboretum, located at the far north end of the property.

Conceptual Organization

LSU Rural Life Museum

As part of the previously developed and approved master plan for The Rural Life Museum and Windrush Gardens, the Museum expansion is under construction. When it opens in the fall of 2009 it will include a new 17,000 s.f. building, 128-car parking lot and the Rural Life Museum Event Garden that transitions between the Museum and Windrush Gardens.

Auto Circulation

The master plan maintains the existing point of entry to the Burden Center off Essen Lane, although it relocates the unsightly and odorous sewerage pump station further west. It also realigns the main entry road to logically lead to the Extension and Research Headquarters and Entry Gardens, and eliminates the existing roadway between the Orangerie and Rose Garden to avoid the potential conflict between pedestrians and automobiles. A separate service road leads to the conference center and research facilities. A one way loop road incorporates Steele Burden's West Perimeter and Burden Center Roads around the edge of the agricultural research fields. Non-public service drives provide staff and researchers access throughout the site.

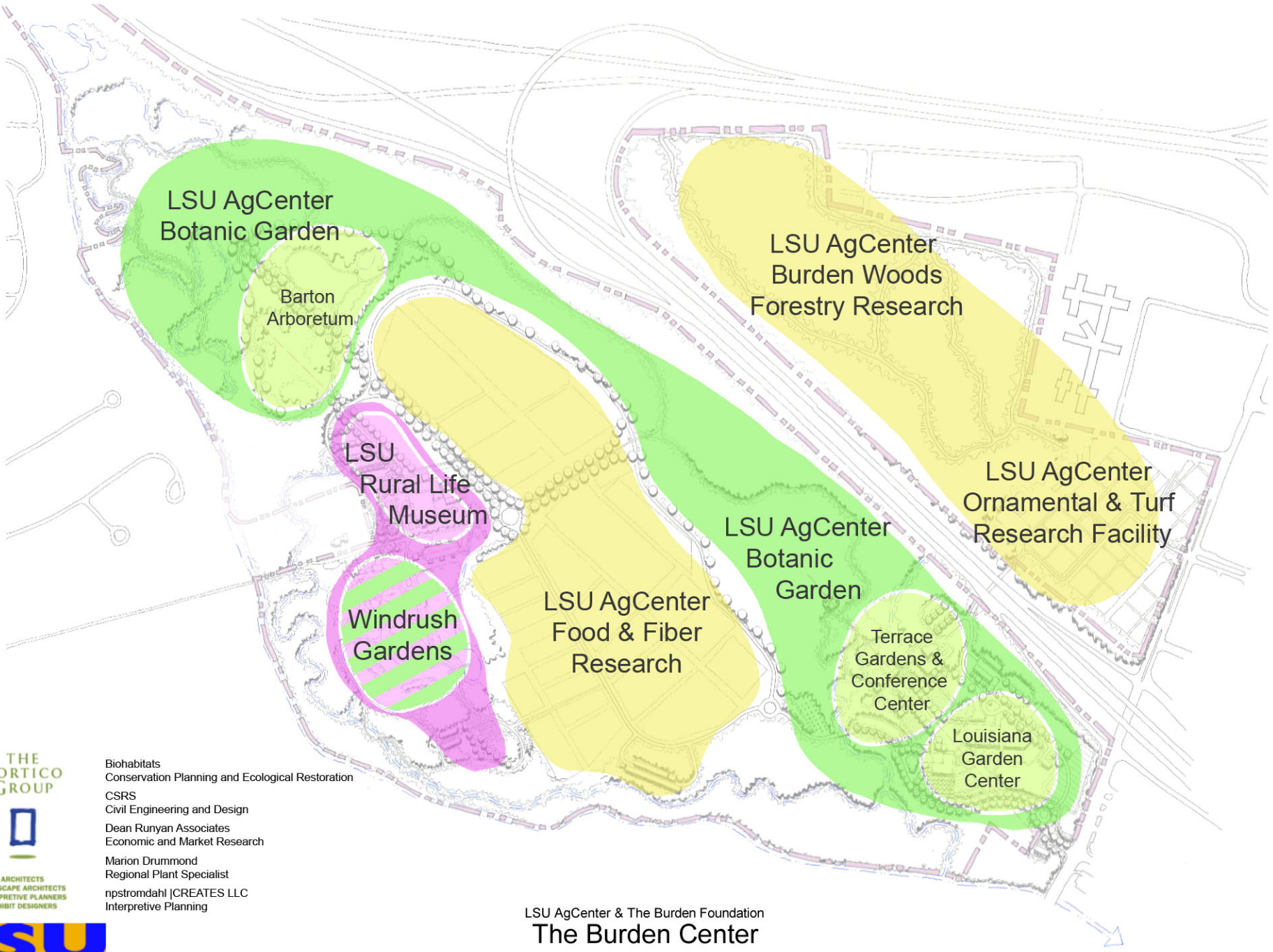
Several new roads and trails follow the allées of live oaks that were planned and planted by Steele Burden

Pedestrian Circulation

A system of trails provides a diversity of experiences for the visitor of varying length and duration. A multi-use trail parallels the entry road. The North Woods Trail connects the Botanic Gardens to the Rural Life Museum. The Black Swamp and Magnolia Beech Trails are located at and access the north end of the property.

Fences and Gates

To address after-hours security, a perimeter fence will surround the Burden Center. A main entry gate at the round-about controls vehicular and pedestrian access. Additional gates at the service drive and existing bridge allows staff to close portions of the site while others remain open to the public. Similar control gates occur at entrances to the site trails.



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Conceptual Organization Diagram

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LSU AgCenter
The Burden Center
Master Plan

Visitor Experience

LSU AgCenter Botanic Garden

The Botanic Garden is made up of six related geographic zones including the:

1. Entry
2. Louisiana Garden Center
3. Terrace Gardens and Conference Center
4. Shops & Maintenance
5. Burden Woods
6. Barton Arboretum

1. Entry

Access and Parking

By relocating the existing sewage pump station to the west, a graceful southern live oak lined entry boulevard is created, following the meander of the restored Old Ward Creek channel. The first 300 feet of drive leads to a round-about located at the intersection of the main visitor drive and the service drive. During evening hours when the Center is closed, both roads are gated. The entry drive also allows maintenance access to the sewage pump station. Beyond the round-about, a vista opens up in the native forest, providing glimpses up into the botanic garden and the buildings that frame the view beyond. The road leads to an entry circle and drop off and an adjacent parking lot. Stepping out onto the entry court, visitors are greeted and welcomed by staff at the entrance to the Extension & Research Headquarters Building. Paralleling the entry road is a pedestrian entry path that also leads to the Headquarters Building and parking lot.

The 56 car parking lot at the Headquarters Building demonstrates the Center's commitment to sustainable building practices through the incorporation of stormwater strategies that reduce the impact on the watershed. These strategies include reinforced grass pavers and porous pavement that reduce runoff, and bioswales that remove hydrocarbons that have leaked from parked cars into stormwater. Interpretive signs encourage visitors to test the effectiveness of the porous paving by pouring a small amount of water on the pavement while watching it disappear through the open pores of the paving into the soil below.

Gardens

Gateway Garden
The Gateway Gardens encompass the grounds open to visitors prior to ticketing, and will include an orchard, the entry circle and the plantings at the edge of the parking lot. The orchards express an important component of Louisiana's, and the Burden Center's, agricultural history. They provide visual interest through the pattern formed by the rows of trunks and an olfactory delight when their blossoms are in bloom during the spring. The entry circle and surrounding spaces showcase plant collections that are a representative sample of gardens found inside the gate. Parking lot plantings demonstrate a palette of trees and shrubs adapted to the hot reflective conditions often found in these locations.

2. Louisiana Garden Center

Access and Parking
The service drive to the Louisiana Garden Center, the Conference Center and Plant Research Facility begins at the round-about near the entry. It connects to the existing access drive lined with its coast live oaks and crape myrtle trees. The drive leads to a new 64 car parking lot serving staff and gardeners, located opposite the Master Gardener Education Center. The parking lot and the operations yard also provide space for the Master Gardeners to conduct their annual plant sale. Like the Headquarters parking lot, it demonstrates the Center's commitment to sustainable building practices.

Buildings

Extension and Research Headquarters Building
The headquarters building is the arrival point and gateway to the Burden Center. It is here where first time visitors are received by staff and are oriented to the Center's offerings. The interior building space includes ticketing counter, lobby, interpretive exhibits, retail space, library and restrooms. It also includes the Burden Center's administrative offices, and the AgCenter East Baton Rouge Parish Extension Service offices. The buildings on site will follow green building practices that are in-keeping with the Center's message of sustainability, with the goal of achieving LEED™ certification.

Master Gardener Education Center
This center of hands on learning provides multi-purpose classroom space, headhouse and potting areas, attached greenhouses and adjacent lathhouses and can yards. Together with the headquarters building it provides the structure and edge of the lawn terrace. Located on the back side of the master gardener center an open yard provides bins to store potting materials including soil, mulch and gravel. It also provides space to demonstrate proper planting techniques and modest landscape construction practices such as setting pavers

and constructing raised beds. Can yards are developed on the north side of the service drive and provide open areas to lay out and grow recently potted plants for demonstration and eventually the material for the annual plant sale.

Gardens

Lawn Terrace

After passing through ticketing control, visitors will encounter a large lawn terrace with a surrounding pergola graced by a canopy of vines. This space is designed to accommodate larger gatherings and special events. The 150 by 250 foot space is planted in patterns of turf grass adapted to southern Louisiana, including St. Augustine, Bermuda, Zoysiagrass, Carpetgrass, and Centipedegrass. Two open air pavilions flank the Orangerie axis and provide shade covered space adjacent to the lawn terrace. Between the pavilions, on a paved terrace, playful water jets will encourage children of all ages to jump, frolic and cool off on a summer day.

Master Gardener Demonstration Garden

Surrounding the parking lot and the entry drop-off are gardens displaying plants particularly suited to the hot dry conditions adjacent to pavement.

Plant Trial Gardens

The new plant trial gardens provide beds where Master Gardeners can showcase new cultivars and recommended plant species for the home gardener. They are located adjacent to the lathhouses, and also straddle the service road entrance north of the entry round-about where they are visible to the visiting public.

Culinary Garden

Part of the crescent shaped demonstration garden area, the culinary garden displays plants used by the chef and caterers that service the special events at the conference center. Spices and aromatic plants are found in abundance. This garden explains to the visitor the richness of the plant world in providing food and spice used in our daily fare. It teaches young visitors where our food crops come from, encourages visitors to grow some of their own food and to purchase locally-grown crops.

Children's Vegetable Garden

The second garden at the Burden Center that focuses on the younger generation, this garden teaches hands on skills to students from local school districts by encouraging participation in planting and harvesting of crops during the year.

All American Display Garden

Showcasing the Garden's recommendation of best plants for southern Louisiana, this garden is located on the edge of the lawn terrace where most visitors to the garden will pass.

3. Terrace Gardens and Conference Center

Access and Parking

At the end of the existing live oak and crape myrtle allee, near the Ione E. Burden Conference Center, the service drive swings to the east to provide access to the new parking lot and the existing tunnel beneath Interstate 10 to the Ornamental & Turf Research Facility. The master plan proposes removing the existing access drive that passes in front of the Orangerie. This opens up the Botanic Garden to pedestrian use unimpeded by vehicular traffic.

To accommodate Conference Center expansion, the existing parking lot is demolished and its function is relocated to the new lot northeast of the Ione E. Burden Conference Center. The new 72 car parking lot provides access to the expanded Conference Center and its hosted events. Two thirds of the lot is paved, while one third is grass field overflow parking. Like the other new parking lots, it demonstrates the Center's commitment to sustainable building practices. Its central planted aisle includes a vine covered trellis that provides a shade covered walk from the car to the conference facilities.

Buildings

Ione E. Burden Conference Center Renovation

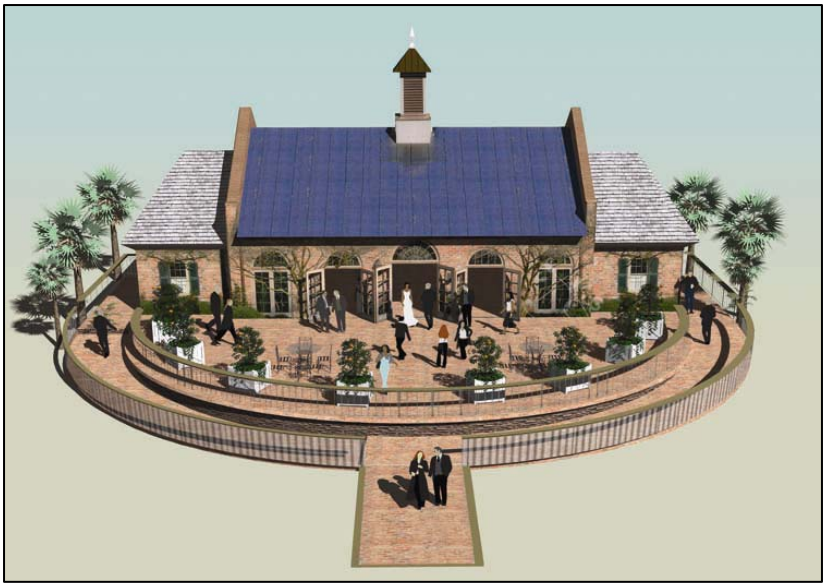
The Ione E. Burden Conference Center includes an existing 2,400-square-foot meeting room served by a kitchen and outdoor covered patio and cooking area. The meeting room is furnished with 12 tables and 90 comfortable chairs. It is a beautiful setting for conferences and workshops that accommodates all types of audiovisual projection equipment. Renovation efforts include an area for cooking demonstrations and a refurbishment of the conference room, lobby and offices.

Conference Center Expansion

The new conference center expansion provides a dividable event room that will accommodate up to 300 guests. This room and the adjacent catering room will allow the Burden Center to host conferences the current Ione E. Burden Conference Center can not accommodate. Its "L" shaped form creates an exterior courtyard between the two buildings, providing garden views from many of the rooms.

Steele Burden Memorial Orangerie Renovation

An extension of the trellis continues beyond the conference center to the existing Orangerie. Following Steele Burden's death in 1995, his close friends developed the Orangerie as a memorial to his significant contributions to the community. A new reception terrace is proposed on the northwest side facing a meadow and the woodland beyond. A new roof and HVAC system make the interior space usable for small meetings, receptions and other special events.



Proposed reception terrace at the Steele Burden Memorial Orangerie

Trees & Trails Pavilion & Restroom

Located southwest of the Orangerie, the trailhead orientation and restroom pavilion serves visitors walking the Trees and Trails loop trail. The overhead roof is supported by large oak logs salvaged from wind thrown trees as a result of Hurricane Gustav in 2008.

Gardens

Children's Garden
One of several locations proposed for child focused activities; the Children's Garden is located north of the Lawn Terrace and provides an enclosed garden space focused on children ages 2-6. Its single entrance and exit assures parents that the Garden has provided a safe place to allow these toddlers to explore elements of soil, plants and water.

Courtyard Garden
The placement and configuration of the Conference Center expansion adjacent to the existing Ione E. Burden Conference Center creates a series of trellis enclosed walkways and courtyard spaces where the refreshing sound of splashing water is found.

Orangerie Event Garden
Three new gardens surround the Orangerie and its new outdoor terrace.

Ginger Garden
The Ginger Garden showcases one of the Center's signature research crops and the work of a distinguished LSU AgCenter faculty member. It is the location of an annual ginger festival, where ginger lemonade, candied ginger, and other treats are served. This existing garden is located to the west of the conference center beneath the shade of a grove of existing pine trees.

Ginger plants at the Burden Center

Therapy Garden
Capitalizing on the adjacency of the Our Lady of the Lake Hospital, directly east of the Botanic Garden, the Burden Center has created a new therapy garden to serve this clientele. Features include a labyrinth, sensory garden, and places of calm and respite. The garden lies to the southwest of the Orangerie.

Camellia Garden
Complementing Steele Burden's original plantings, the AgCenter acquired more than 450 identified camellia varieties from the private collection of Violet Stone in 2002. When she died in 2001, she left a Baton Rouge garden brimming with about 500 named varieties. With the help of Violet's daughter, Stella Stone Cooper of Paramus, New Jersey, and longtime family friend Art Landry of Baton Rouge, staff from the Burden Center identified and collected cuttings, which were cataloged and propagated. Later, the camellias themselves were removed from the Stone residence in Baton Rouge's Garden District and transplanted to the Burden Center. The focus of planting locations is the shaded understory areas flanking the central Orangerie lawn.

All-America Rose Garden
The Burden Center is a member of All-America Rose Selection's nationwide network of approved public gardens. AARS public gardens contain a minimum of 800 rose bushes and offer special displays of outstanding new varieties chosen by the organization for their beauty, novelty and vigor. AARS public gardens are reviewed annually to ensure that visitors continue to have an enjoyable and educational experience. The AgCenter also conducts annual surveys to evaluate plants for disease resistance and overall performance in southern Louisiana. This existing garden is retained as a focus of the Terrace Gardens.

4. Shops & Maintenance

The shop and maintenance facility is adjacent to the Interstate 10 freeway and opposite the master gardener propagation center. It provides offices, equipment and vehicle bays, shops and storage. The mass of the buildings helps reduce sound impacts to the Garden from traffic on the I-10 freeway.

5. Burden Woods

Burden Woods covers approximately three quarters of the Burden Center's 440 acres. It is now just a remnant of a once much larger woodland that covered this floodplain and bayou landscape. Heavily impacted by the leading edge of Hurricane Gustav in the fall of 2008, the woodland is now even more in peril. Much of the mature hardwood forest was blown down in the storm. Subsequent logging clean up operations removed much of the damaged or down trees, but left the woodland in need of reforestation. LSU AgCenter has applied for grant funds to implement invasive plant suppression activities and reconstruction of the native forest. The AgCenter is currently awaiting notification from the granting authority on its application.

Damage from hurricane Gustav in the Burden Woods

Big Tree House

Adjacent to the Trees and Trails loop trail, north of the Orangerie and immersed in the Burden Woods, the Big Tree House is a children's program focused on middle school age children. It is part of a nature-based field education program on Louisiana wetlands and forest habitats. Sited around Louisiana's state tree – the Bald Cypress (*Taxodium distichum*) – this adventure experience introduces to children the abundant life found in the moss laden branches of cypress and southern live oaks common in the region's forests.

Old Ward Creek and Trail

The old meander course of Ward Creek is reconstructed as a conveyance and treatment system for stormwater flowing off the adjacent Interstate 10 freeway, agricultural fields, parking lots and building roofs. Reconstruction efforts will involve excavation and replanting of the channel with a native south Louisiana riparian plant community that will filter and cleanse the water while supporting a rich habitat.

At the north end of the property, the former borrow pits, mined for material that was used to construct the adjacent Interstate 10/12 freeway interchange, are proposed to undergo transformation into a rich wetland habitat. Some of the existing steep banks are re-contoured to create a more natural landform and visitor destination. The edge of the former borrow pits – now called 'Burden Bluff' – offers potential elevated views of the wetland from tree canopy level. It is accessed by the North Woods Trail that will follow

the reconstructed Old Ward Creek channel, crossing several boardwalks that span the lowland bayous.

6. Barton Arboretum

The existing Barton Arboretum, which includes groves of trees, a meadow, pond and gazebo, is dedicated to Scott Duchein Barton, wife of John Barton, who was a lifelong friend of Steele Burden.

Barton Arboretum Expansion

In recognition of Steele Burden's stated desire to expand the existing Arboretum to the west across Burden Center Road, this larger arboretum will showcase trees and woody shrubs native to Louisiana, and a selection of non-natives adapted to the climate of south Louisiana.

Black Swamp Trail

This trail takes the visitor west of the Barton Arboretum through low lying bayous and wetlands.

Barton Arboretum

LSU AgCenter Plant Research Facilities

The LSU AgCenter Plant Research Facility includes three components:

1. Ornamental & Turf Research
2. Food & Fiber Research
3. Burden Woods Forestry Research

1. Ornamental & Turf Research Facility

The Ornamental & Turf Research Facility is located north of Interstate 10 and will provide facilities to support the ongoing research of the LSU AgCenter.

Greenhouses

Three additional greenhouses are proposed adjacent to the one existing, replacing those removed to accommodate construction of the new entry road and headquarters building.

Lab and Offices

Proposed lab space adjacent to the existing building, replaces the existing lab removed to accommodate construction of the new entry road and headquarters building. The master plan also proposes this location as an area that can accommodate a future research, office or museum facility.

2. Food & Fiber Research

The central fields in the portion of the property south of Interstate 10 are designated for ongoing research into food and fiber crops. Improvements to this area may include upgraded utility infrastructure and sustainable practices to collect and treat runoff from the fields.

3. Burden Woods Forestry Research

The Center's approximately 200 acres of forest provide an excellent opportunity for studies in forest ecology, wetland mitigation and the urban/natural interface. While the woods north of Interstate 10 will have limited public access, thus allowing more controlled studies, research projects will occur in woods and wetland areas throughout the Center.

LSU Rural Life Museum (RLM)

Parking Lot and Access Paths

A new redesigned 128 car central parking lot serves visitors to both the Rural Life Museum and Windrush Gardens. It incorporates wide planted aisles and bioswales. One half of the stalls are paved, the other half are proposed as grass and field overflow parking.

Rural Life Museum Event Garden

Located on the west side of the RLM museum expansion, a new entry and event garden connects the Rural Life Museum to Windrush Gardens. It incorporates a number of mature oak trees while providing gathering areas and pathways for strolling visitors. An axial sight line connects the space to Windrush, focused on the existing large sugar kettle and gardens found directly west of the Hostler House. This garden could use historic industrial objects as garden sculptures and focal points, tying the aesthetic of Windrush Gardens with the interpretive content of the Rural Life Museum.

Historic industrial objects as sculpture

Windrush Gardens Renovation

The master plan recommends Garden restoration to repair damage from 2008 Hurricane Gustav, following recommendations of the Cultural Landscape Report (Refer to Appendix A). It also sites a new equipment and supply shed conveniently located along the existing gravel drive that serves the gardeners working in this area.

Azalea & Camellia Gardens

This garden experience builds on the existing azalea and camellia garden south of the Lake Efferson.

Big Tree House
Trees & Trails
East Perimeter Road
LSU AgCenter
Food & Fiber Research
Burden Center Road
Steele Burden Memorial
Orangerie & Terrace
Trees & Trails
Pavillion
Gate
Roundabout
Terrace Gardens & Conference Center
Trellis
Tunnel Road
24
24
Parking
24
Gate
Ione Burden Conf. Center Renovation
Courtyard Garden
Conf. Ctr. Addition
Orangerie Gardens
Ginger Gdn.
Shops & Maintenance
Gate
Gate
I-10
Parking
32
32
All-America Rose Garden
Camellia Garden
Therapy Garden
Children's Garden
Master Gardener Demonstration Gardens
School Group Drop-off & Entry
Work Yard
Head House
All-America Rose Garden
Parking
56
Garden Pavilions
Master Gardener & Education Center
Lath House
Greenhouses
Hort & Nursery Trials
Lawn Terrace
Ex. Irrigation Well
Gate
Shops, Maintenance & Storage
Burden Woods
Forest Reconstruction
Extension & Research HQ
All-American Display Garden
Louisiana Garden Center
Plant Trials
Plant Trials
Caretaker's Residence
Culinary Garden
Orchard
Children's Vegetable Garden
Vista Garden
Entry path
One Calais Ave.
Old Ward Creek Reconstruction
LSU AgCenter
Botanic Garden
Entry Boulevard
Gate
Roundabout
Gate
Gate
Essen Lane
Ward Creek Flood Channel
New stable outfall to Ward Creek Flood Channel
Relocated Sewage Pump Station
Entry
Essen Park

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The Burden Center
South Site
MASTER PLAN

November 1, 2009

0 100' 200' 400'

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INTERPRETIVE PLANNERS
EXHIBIT DESIGNERS

Biohabitats
Conservation Planning and Ecological Restoration

CSRS
Civil Engineering and Design

Dean Runyan Associates
Economic and Market Research

Marion Drummond
Regional Plant Specialist

npstromdahl |CREATES LLC
Interpretive Planning

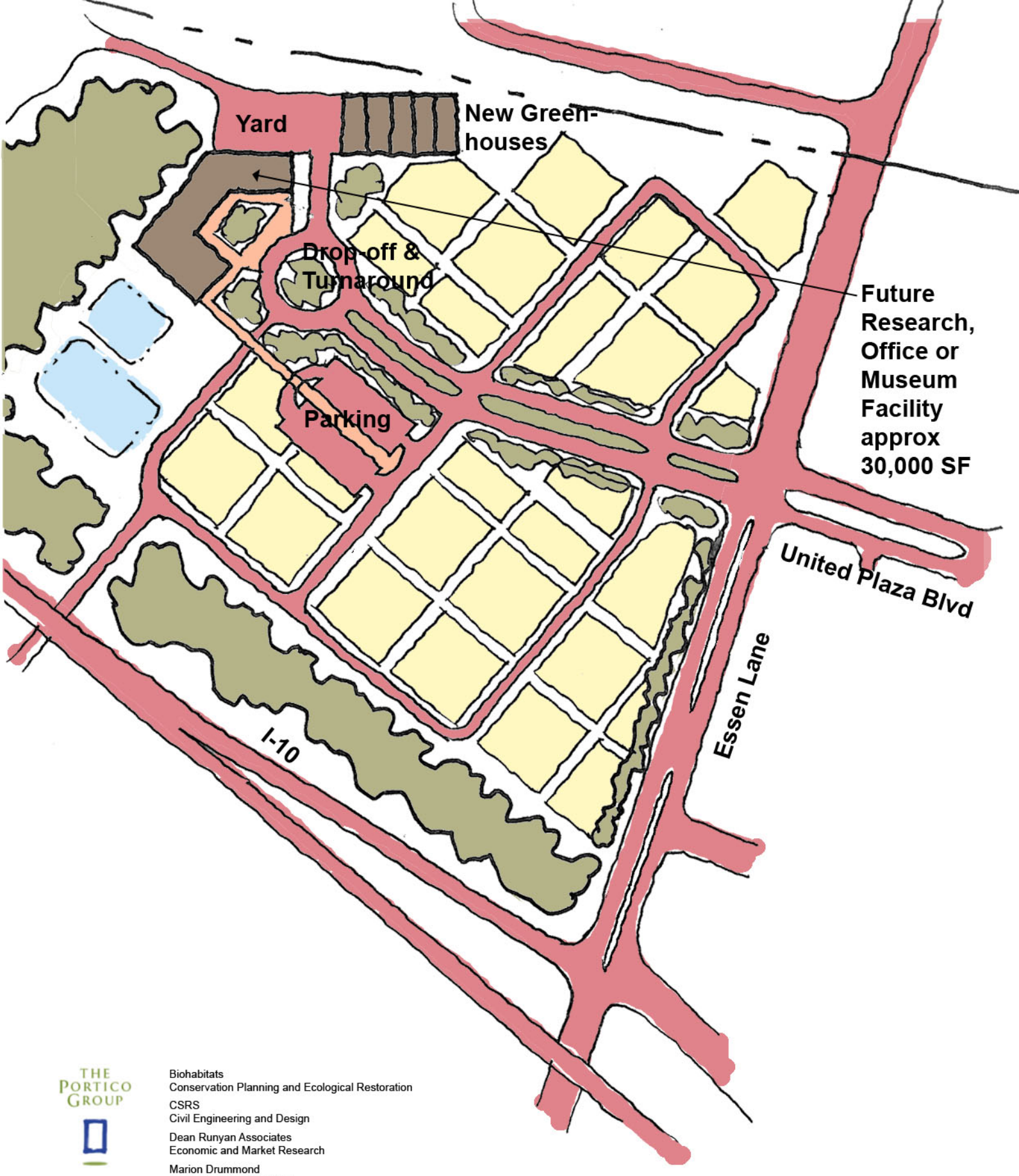
LSU AgCenter
Research & Extension

LSU AgCenter & The Burden Foundation

The Burden Center

Future Public Facility - Preferred Option

MASTER PLAN



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Future Public Facility - Option 2

MASTER PLAN

Barton Arboretum

Black Swamp Trail

LSU AgCenter
Food & Fiber Research

Arboretum Pavilion

Barton Arboretum Expansion

Existing Oak Allée

Overflow Parking

30

34

38

26

Central Parking

LSU
Rural Life Museum

Rural Life Museum Event Garden

New Exhibit Hall

Hostler's House

Plantation Quarters

Barn

Burden Family Home

New Equip. Shed

Burden Lane

Windrush Gardens

LSU AgCenter
Food & Fiber Research

Woodland Gardens

Pond

Woodland Gardens

Ward Creek Flood Channel

Outflow from Ponds

Lake Efferson

Pine & Azalea Collections

Cypress Grove

Old Ward Creek Reconstruction

Camellia & Azalea Gardens

Bridges

Crape Myrtles

Existing Oak Allée

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North Site

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0 100' 200' 400'

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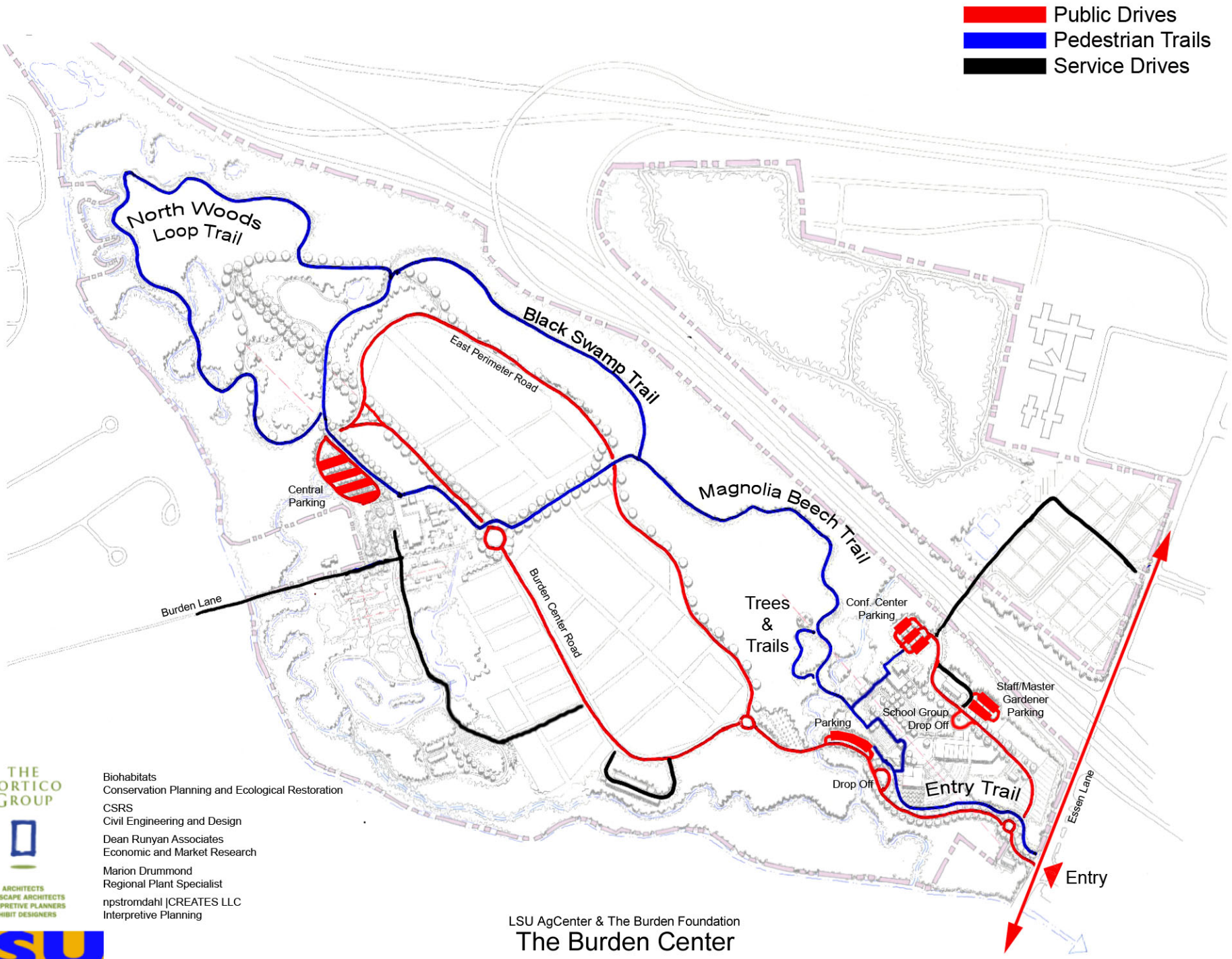

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Circulation

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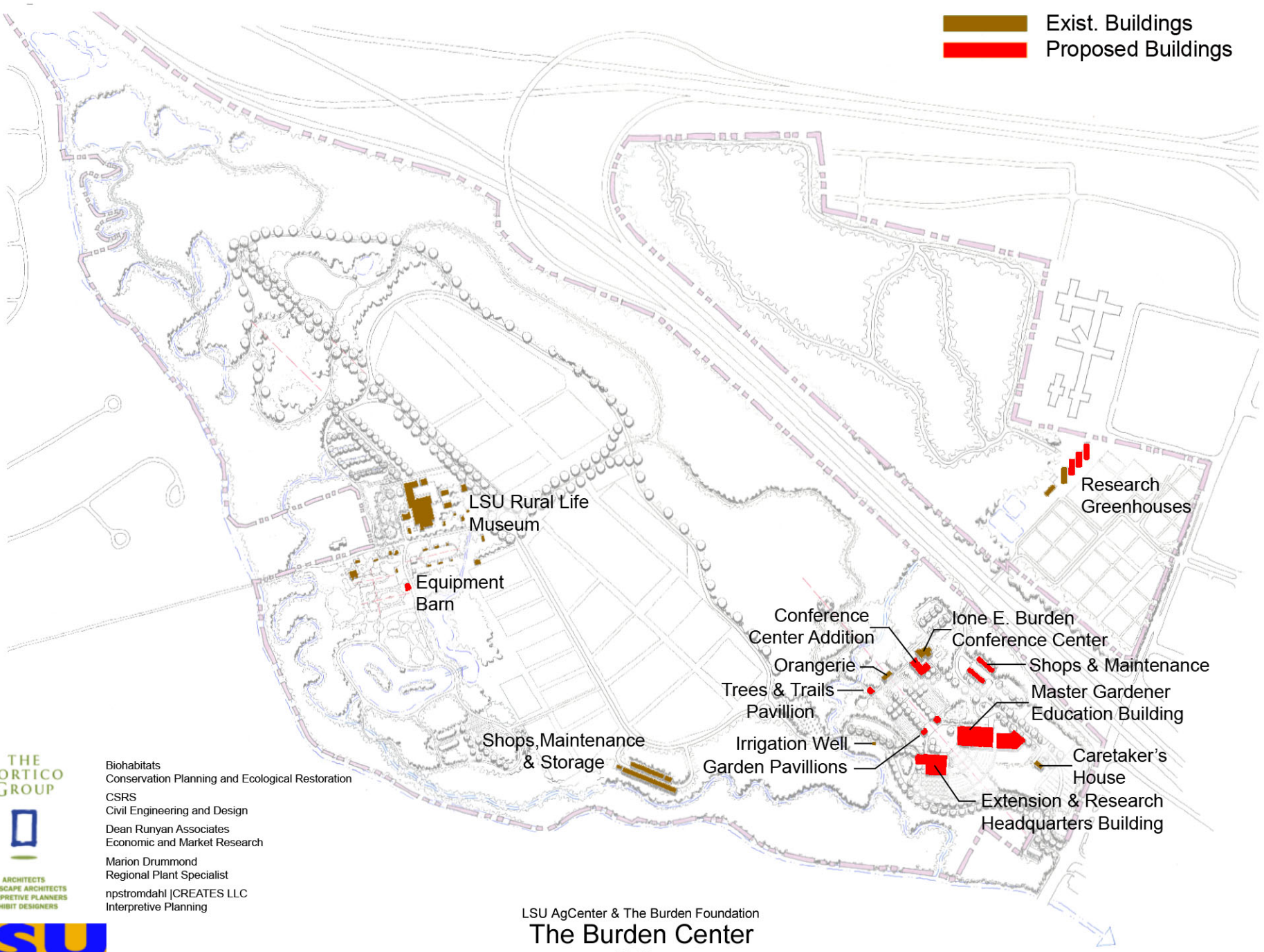
November 1, 2009



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Buildings

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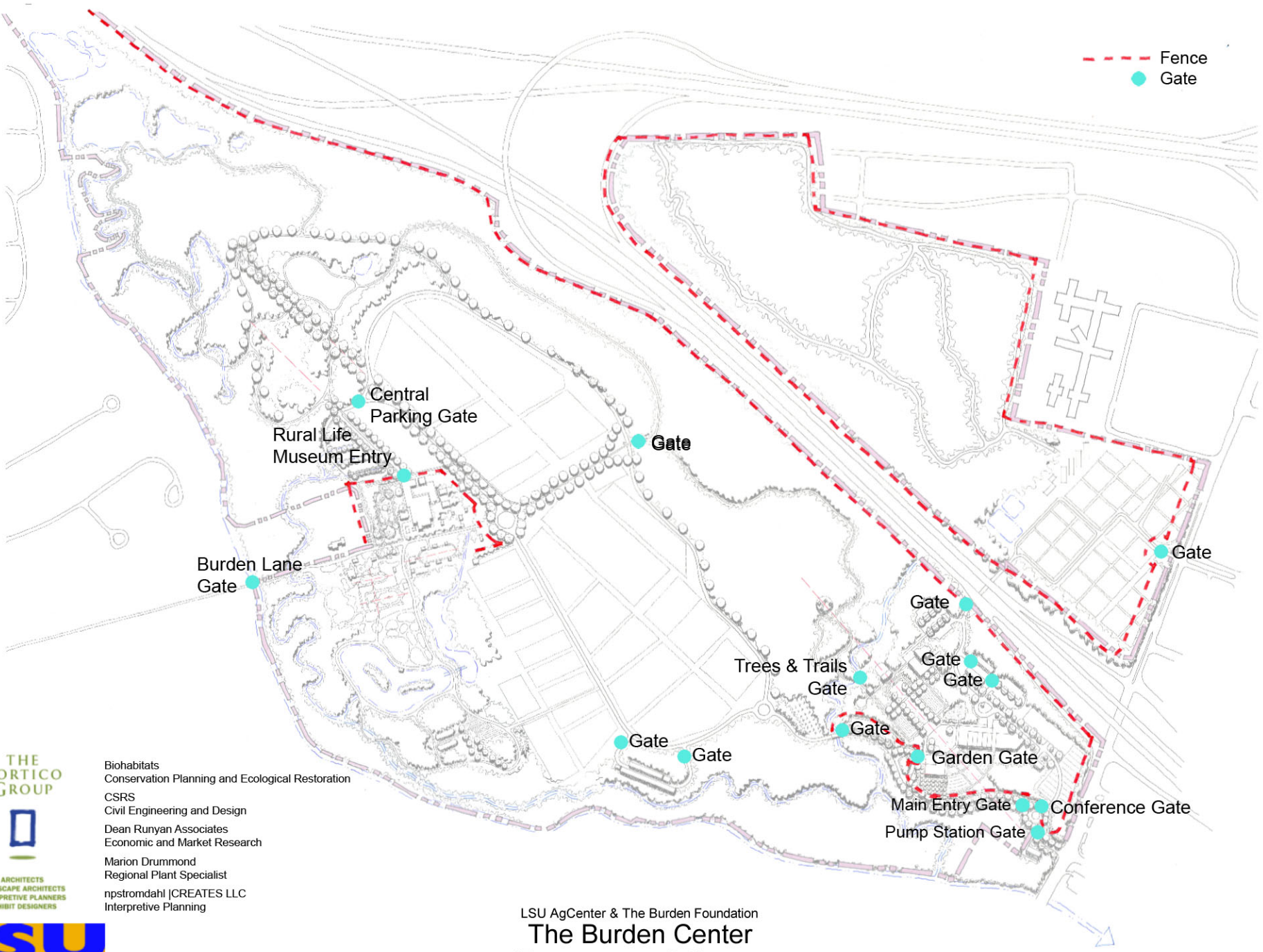

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Fences and Gates

MASTER PLAN

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LSU AgCenter
The Burden Center
Master Plan

Plant Collections

LSU AgCenter Botanic Garden

The plants listed for the following collections are appropriate for the various named categories. It is not intended that all these plants should be included nor is it intended to exclude other plant materials. The final decision lies with future space and location considerations.

1. Entry Gardens

The Entry Garden must set the tone for the upcoming Botanic Garden experience and alert the visitor to the fact there is a wealth and variety of plant material to be seen.

1.1 Entry Boulevard

This is an introduction to the Burden Center and presents low plantings of hydrangeas beneath the oaks that do not detract from the all-important allee. The repetition of the plantings leads the visitor to the parking area while allowing intermittent glimpses of the plantings within. Low plantings beneath the oaks:

Mixed hydrangeas: They come on after the frenzy of Spring azaleas has subsided i.e;

Hydrangea macrophylla `Blaumeise`	Blaumeise Hydrangea
Hydrangea macrophylla `Domotoi`	Domotoi Hydrangea
Hydrangea quercifolia `Pee Wee`	Pee Wee Dwarf Hydrangea
Hydrangea paniculata `Limelight`	Limelight Hydrangea
Hydrangea serrata `Fuji Waterfall`	Fuji Waterfall Hydrangea
Hydrangea serrata `Blue Bird`	Blue Bird Hydrangea
Dichroa febrifuga	Evergreen Hydrangea

1.2 Introductory plantings

Groundcovers are an important part of any landscape, filling an empty area and/or serving to connect one area with another. Although not low-growing like the typical groundcover, grasses add the element of motion to the garden, especially in winter.

a. Shade groundcover

Lysimachia congestiflora `Eco Dark Stain`	Creeping Jenny / Golden Globes
Rubus calycinoides `Emerld Carpet`	*C*reeping Raspberry

b. Filtered light groundcover

Saxifraga stolonifera	Strawberry Begonia
Viola hederacea	Australian Violet

c. Full Sun

Muhlenbergia dumosa	Bamboo Muhly Grass

1.3. Orchard

Crataegus opaca cultivars	Check with Louisiana Mayhaw Assn. & Little Eden Vineyard in Pollock, LA
Cydonia oblonga	Fruiting Quince
Punica spp.	Pomegranates
Diospyros spp	Persimmons
Ficus carica spp.	Figs
Vaccinium spp.	Commercial Blueberries
Citrus	Selected species; i.e. satsumas
Olea europaea `arbequina`	Arbequina Olive
Persea americana	Avocado (check with Mike Richard @ Live Oak)

1.4 Gateway Garden

Topiaries as part of the Gateway Garden are fun to look at as you approach the main building and a nice foil to both the lawn and the roses. Underplant with *Podocarpus macrophyllus,* the groundcover form. Or perhaps a display of interesting potted plants for the xeric garden.

2. Louisiana Garden Center

2.1 Lawn Terrace

Amidst so many plantings, some open space is desirable. This regional native tree offers flowering beauty in the Spring and generous shade through the warm spring and hot Summer months.

Trees in the lawn *Halesia diptera 'Magnoliflora'* Large-flowered Silverbell

2.2 All American Display Garden

The following are but a small sample of plants that would be appropriate for such a collection. Only trees and shrubs are listed as perennials are included elsewhere throughout. This display should offer a great variety of both traditional and new material.

Acer leucoderme	Chalk Maple
Acer saccharum subsp. floridanum	Southern Sugar Maple
Agarista populifolia	Leucothoe
Agarista populifolia `Leprechaun`	Dwarf Leucothoe

Catalpa bignonioides	Southern Catalpa
Callicarpa Americana	American Beautyberry, Purple & White
Chaenomeles spp.	Flowering Quince
Chionanthus retusus	Chinese Fringe Tree
Chionanthus virginicus	Grancy Greybeard
Clethra alnifolia spp.	Summersweet selections
Clethra pringlei	Pringle's Evergreen Summersweet
Cornus elliptica	Evergreen Dogwood
Deutzia gracilis `Nikko`	Dwarf Deutzia
Illicium floridanum	Anise Shrub
Elaeocarpus decipiens	Japanese Blueberry
Mahonia bealei	Leatherleaf Mahonia
Mahonia fortunei	Chinese Mahonia
Metasequoia glyptostroboides	Dawn Redwood
Parrotia persica	Persian Ironwood
Parrotia persica `Vanessa`	Vanessa Persian Ironwood
Quercus glauca	Japanese Blue Oak
Quercus rizophylla	Texas Loquat Oak
Vaccinium elliottii	Elliott's Highbush Blueberry

2.3 Vista Garden

As color is appealing to the average visitor, this collection will include a broad selection of plants offering color year around. Listed are a mix of both evergreen and deciduous shrubs and perennials to which colorful cool-season annuals can be added. Cool season annuals should be planted for show during the winter months. Mixed evergreen and deciduous shrubs predominate. Planting should be done in such a way as to continue directing the visitors' eye down the allée.

Abelia spp. `Rose Creek`, Mardi Gras`	Rose Creek & Mardi Gras Abelias
Abutilon spp.	Selected Low-growing Parlor Maples
Allamanda c. `Henderson's Dwarf``	Dwarf Bush Allamanda
Alternanthera dentata & ficoidea spp.	Various Selected Alternantheras
Beschorneria setentrionalis	False Red Agave
Cestrum fasciculatum `Newllii`	Red Cestrum
Cuphea micropetala	Cigar Plant
Galphimia gracilis	Thryallis glauca
Gardenia `Klehm's Hardy`	Klehm's Hardy Gardenia
Hamalia patens `Compacta`	Dwarf Firebush
Kerria japonica`Plenifora`	Japanese Rose
Leonotis leonurus	Lion's Head/Lion's Tail
Leucophylum frutescens `Green Cloud`	Green Cloud Texas Sage
Orthosiphon stamineus, lavender & white	Lavender & White Cat's Whiskers
Russellia equisitiformis	Red Firecracker Plant
Tagetes lemmonii	Copper Canyon Daisy

Tagetes lucida	Mexican Mint Marigold

2.4 Children's Vegetable Garden

A teaching garden where children can plant (perhaps this could grow into a program where schools would start their own food gardens) a la the White House Garden. Teach children where food comes from (especially inner-city children). They must have something to take home with them. Reference: McArthur Genius Award-winning Gary Paul Nabhan's *The Geography of Childhood: Why Children Need Wild Spaces;* Richard Louv's *Last Child in the Woods* where he describes the current generations' "nature deficit disorder."

Plants with animal / bird / insect names:
Plants with common names such as these help children develop observation techniques and awareness of their surroundings.

Stachys byzantina	Lamb's Ear
Acanthus mollis	Bear's Breeches
Cornus elliptica (angustata)	Evergreen Dogwood
Cuphea hyssopifolia `Flamingo Pink`	Flamingo Cuphea
Cuphea llavea	Bat-faced Cuphea
Yucca smalliana	Bear Grass
Orthosiphon stamineus	Cat's Whiskers
Monarda didyma	Bee Balm
Viola pedata	Bird-foot Violet
Strelitzia reginae	Bird-of-Paradise / Crane's Bill
Petrea volubilis	Blue Bird Vine
Penstemon cobaea	Wild Foxglove
Tricyrtis hirta	Toad Lily
Catalpa bignonioides	Caterpillar Tree
Typha latifolia	Cattail
Celosia argentea	Cock's Comb
Colocasia esculenta	Elephant's Ear
Quercus michauxii	Cow Oak
Leucothoe axillaris	Dog Hobble
Sagittaria spp.	Duck Potato
Equisetum hyemale	Horsetail
Salix caprea	Pussy Willow

Etc., etc. …and many Butterfly plants

…or plants with names referring to clothing, common everyday items, food, colors, musical instruments, toys, etc.
Activities will vary with different age groups, but all should have something to take home. Some plants could be changed out annually.

2.5 Culinary Garden

This would logically be an extension of the Children's Vegetable Garden, bordered by *Laurus nobilis*, the true Bay, and *Rosemary officinalis*, the upright form of Rosemary, and all of it interspersed with a variety of salvias, the color appealing to the children. Center plantings would be seasonal vegetables or perhaps plantings of the many edible plants native to Louisiana. There needs to be space for a work area where participants can develop projects.

2.6 Oak & Crape Myrtle Boulevard

Both these trees were favorites of Steele Burden and are traditional in Gulf Coast landscapes. Additional plantings of both strengthen the connection with him and the surrounding community.
Under planted with *Indigofera kirilowii* Kirilow Indigo

2.7 Master Gardener Demonstration Garden

Plantings to be determined by Master Gardeners. As the Master Gardeners are such an integral part of the Burden Center, their input would be most valuable for this garden. Both this and the following garden should be changed out periodically, once data is collected and recorded.

2.8 Tree & Shrub Trials

Plantings to be determined by on-site horticulturist(s)

3. Terrace Gardens & Conference Center

3.1 Children's Discovery Garden:

Crawl through caterpillar covered with vines. Fun things to play on/with. A good old-fashioned place to get dirty and a puddle/low-spouting fountain to clean off after. Plants are not as important in this garden; it is a place for play. Perhaps just a border of:

Viburnum obovatum `Mrs. Schiller's Delight`	Mrs. Schiller's Delight Dwarf Viburnum
Pittosporum tobira `Mojo`	Dwarf Variegated Pittosporum
Prunus jacquemontii	Bush Cherry

3.2 Allée:

The selection of the Pond Cypress provides linearity for the Allée with a selection that does not as readily produce knees and one that holds its needles longer in the fall, providing color that extends longer into the season.
Planted with *Taxodium nutans (ascendens)* Pond Cypress

3.3 Roses

The existing roses could be expanded with additional antique and hybrid selections.

3.4 Orangerie Event Gardens

The following are suggestions for some different Event Gardens adjacent to the Orangerie; the actual design and use of plant materials would be determined by the types of events the Burden Center decides would be appropriate.

Event Garden 1

A space with fixed tables and chairs under umbrellas in the summer. Low plantings of both colorful perennials and annual fragrant herbs are interspersed throughout. A planting canopy of *Koelreuteria elegans* (Taiwan Golden Raintree) would provide high shade in summer.

Event Garden 2

A water wall feature spills over at the back of this space. Plantings reflect the waterfall:

Acer palmatum `Ryusen`	Weeping Japanese Maple
Taxodium distichum `Cascade Falls`	Cascade Falls Weeping Cypress
Taxodium distichum `Falling Waters`	Falling Waters Weeping Cypress
Acer palmatum `Waterfall`	Waterfall Japanese Maple
Celtis sinensis `Green Cascade`	Green Cascade Weeping Hackberry
Betula nigra `Summer Cascade`	Summer Cascade Weeping River Birch
Nyssa sylvatica `Autumn Cascades`	Autumn Cascades Weeping Black Gum
Parrotia persica `Pendula`	Weeping Persian Ironwood
Metasequoia glyptostroboides`Pendula`	Weeping Dawn Redwood

Event Garden 3

Bordered with *Distylium myricoides,* the Evergreen Witch-hazel; very broad in habit, only about six feet tall with blue-green arching foliage. Provides some privacy with a central open space for a wide range of activities. A tent or tables and chairs could be set up in the center.

3.5 Camellia Garden

The large existing collection of Camellias should be added to with both new hybrids and recently-discovered old plants discovered in gardens along the Gulf Coast.

3.6 Ginger Garden

There already exists a fine collection of Gingers which can be enhanced by additional unusual and rare species.

3.7 Therapy Garden

A traditional labyrinth for contemplation, formed either with hardscaping or with one of the following:

Rosemarinus officinalis `prostratus`	Prostrate Rosemary
or	
Pittosporum tobira `Mojo`	Dwarf Variegated Pittosporum

There should be a water feature included and minimal planting to minimize distraction and small spaces for seating on curved benches, separated from one another to provide enclosure and privacy.

Border plants:

Illicium parviflorm	Yellow / Ocala Anise
Magnolia (Michelia) skinneriana	Skinner's Banana Magnolia
Magnolia (Michelia) x foggii	Foggii Magnolia
Magnolia (Michelia) maudiae	Maudiae Magnolia

Inside plantings:

Aloysia virgata	Sweet Almond Verbena
Magnolia (Michelia) yunnanensis	Magnolia dianica
Vitex agnus-castus	Chaste Tree
Mentha pulegium	Pennyroyal

3.8 Courtyard Garden

This garden could be great fun featuring a fountain/fountains that provide a theme for moisture-loving plants.

Nyssa sylvatica `Zydeco Twist`	Contorted Black Gum
Acorus gramineus `Ogon` & `Variegatus`	Golden and White Variegated Sweet Flag
Crinum americanum	Seven Sisters Crinum / String Lily
Leucothoe axillaris `Leprechaun`	Dwarf Leucothoe
Osmunda regalis	Royal Fern
Sisyrinchium angustifolium	Narrow-leaf Blue-Eyed Grass
Helianthus angustifolius	Swamp Sunflower
Hibiscus coccineus	Both red and white Texas Star Hibiscus
Drosera spp.	Sundews
Sarracenia spp.	Pitcher Plants
Selaginella sp.	Spike Moss
Selaginella uncinata	Peacock Spike Moss

3.9 Trellis Vines

The heat from the walk from the parking lot to the Conference Center will be mitigated by a vine-covered walkway, important in this climate.
Evergreen vines overplanted with deciduous vines:

Mascagnia macroptera	Yellow/Mexican Butterfly Vine
Lonicera sempervirens	Coral Honeysuckle
Manettia reticulata	Evergreen Wisteria
Gelsemium sempervirens	Carolina Yellow Jasmine
Trachelospermum jasminoides	Confederate Jasmine
Trachelosspermum jasminoides `Pink`	Pink Confederate Jasmine
Bauhinia yunnanensis	Orchid Vine
Manettia cordifolia	Firecracker Vine
Clematis spp.	
Passiflora spp.	
Antignon leptopus	Both pink and white species
Mina lobata	Spanish Flag Vine
Dicentra scandens	Bleeding Heart Vine

3.10 Conference Center Parking Lot Plantings

Evergreen plantings in the parking lot will help mitigate the heat of the paved area.

Viburnum luzonicum	Luzon Viburnum
Callistemon spp.	Selected Bottlebrush
Elaeocarpus decipiens	Japanese Blueberry
Myrica cerifera	Southern Wax Myrtle

4. Collections

The following, 4.1-4.5, are samples of certain genera that perform well along the Gulf Coast and are not included elsewhere. Other genera could certainly be considered.

4.1 Japanese Maples:

Acer palmatum `Seiryu`
Acer palmatum `Fireglow`
Acer palmatum `Sango Kaku`
Acer palmatum `Beni Kawa`
Acer palmatum`Inaba Shidare`
Acer palmatum `Emperor 1`
Acer palmatum `Red Emperor`
Acer palmatum `Tamukeyama`
Acer palmatum `Glowing Ember`
Acer palmatum `Orangeola`

4.2 Ornamental Grasses:

Bamboo spp.	Selected Clumping Species

Carex albula `Frosty Curls`	Frosty Curls Sedge
Carex comans `Bronco`	Bronco Sedge
Carex comans `Bronzita`	Bronzita Sedge
Carex flagellifera `Toffee Twist`	Toffee Twist Sedge
Carex morrowii `Ice Dance`	Ice Dance Variegated Sedge
Muhlenbergia capillaries `White Cloud`	White Muhly Grass
Muhlenbergia dumosa	Bamboo Muhly Grass

4.3 Magnolia virginiana cvs.

Magnolia virginiana	Sweetbay Magnolia
Magnolia ludoviciana	Large-leaf / Louisiana Sweetbay Magnolia
Magnolia virginiana `Mattie Mae`	Mattie Mae Variegated Sweetbay Magnolia
Magnolia virginiana var. `australis`	Evergreen Sweetbay Magnolia
Magnolia virginiana var. a. `Tensaw`	Tensaw Dwarf Sweetbay Magnolia
Magnolia virginiana var. a. `Sweet Thing`	Sweet Thing Sweetbay Magnolia

4.4 Ferns

Adiatum capillaries-veneris	Southern Maidenhair Fern
Arachnoides simplicor `Variegata`	Variegated East Indian Holly Fern
Athyrium filix-femina	Lady Fern
Athyrium niponicum `pictum`	Japanese Painted Fern
Cyrtomium falcatum	Holly Fern
Diplazium esculentum	Vegetable Fern
Dryopteris x australis	Dixie Wood Fern
Dryopteris erythrosora	Autumn Fern
Dryopteris ludoviciana	Southern / Louisiana Shield Fern
Hypolepis repens	Flakelet Fern
Microlepia strigosa	Lace Fern
Osmunda cinnamomea	Cinnamon Fern
Osmunda regalis	Osmunda regalis
Pteris ensiformis evergemiensis	Variegated Brake Fern
Pyrrosia lingua	Hart's Tongue Fern
Pyrrosia lingua `Variegated`	Variegated Hart's Tongue Fern
Rumohra adiantiformis	Leather Leaf Fern
Thelypteris kunthii	Southern Wood Fern
Woodwardia orientalis	Oriental Chain Fern

4.5 Conifers for the South

Abies firma	Momi Fir
Cryptomeria japonica	Japanese Cedar
Cryptomeria cvs.	
`Ben Franklin`	
Globosa nana	
`Yellow Twig`	

`Black Dragon`
`Gyokuryu`
`Jindai`
`Kilmacrragh`
`Radicans`
`Sekkan`

Cunninghamia lanceolata	Cunninghamia Fir
Cunninghamia l. `glauca`	Blue Cunninghamia
Juniperus virginiana	Eastern Red Cedar
Juniperus v. `Grey Owl`	Gray Owl Juniper
Juniperus chinensis `Blue Point`	Blue Point Chinese Juniper
Thuja occidentalis `George Peabody`	George Peabody Arborvitae
Thuja occidentalis `Yellow Ribbon`	Yellow Ribbon

Etc.

5. Barton Arboretum

Native Trees & Shrubs Displayed as Collections

The expansion of the Barton Arboretum offers an excellent opportunity to plant collections of various natives. The following are a small number of suggested genera to display for comparisons. Many more are worthy of inclusion, depending on space and design considerations.

5.1 Maples

Acer barbatum	Southern Sugar Maple
Acer floridanum	Florida Sugar Maple
Acer negundo	Box Elder
Acer rubrum var. drummondii	Red Swamp Maple
Acer saccharinum	Silver Maple

5.2 Pines

Pinus echinata	Shortleaf Pine
Pinus elliottii	Slash Pine
Pinus glabra	Spruce Pine
Pinus palustris	Longleaf Pine
Pinus taeda	Loblolly Pine

5.3 Hickories

Carya aquatic	Bitter Pecan
Carya cordiformis	Bitternut Hickory
Carya glabra	Pignut Hickory
Carya ovata	Shagbark Hickory
Carya tomentosa	Mockernut Hickory

Carya illinoensis, the Pecan, can be included here but elsewhere its many commercial varieties should be displayed; perhaps in the Tree & Shrub Trial Garden

Juglans nigra, the Black Walnut could be included here, noted as a similar nut.

5.4 Oaks

Quercus alba	White Oak
Quercus falcata	Southern Red Oak
Quercus falcata var. pagodifolia	Cherrybark Oak
Quercus laurifolia	Laurel Oak
Quercus lyrata	Overcup Oak
Quercus macrocarpa	Burr Oak
Quercus michauxii	Swamp Chestnut Oak
Quercus nigra	Water Oak
Quercus nuttallii	Nuttall Oak
Quercus phyllos	Willow Oak
Quercus shumardii	Shumard Oak
Quercus stellata	Post Oak

5.5 Magnolias

Magnolia ashei	Ashe Magnolia
Magnolia acuminata	Cucumber Magnolia
Magnolia denudate	Yulan Magnolia
Magnolia grandiflora	Southern Magnolia
Magnolia macrophylla	Bigleaf Magnolia
Magnolia pyramidata	Pyramidal Magnolia
Magnolia tripetala	Umbrella Magnolia
Magnolia virginiana	Sweetbay Magnolia

5.6 Hollies:

Several of these have numerous cultivars that could also be displayed. New hybrids are constantly being developed.

Ilex x attenuata `Fosteri`	Foster's Holly
Ilex x attenuaae `Savannah`	Savannah Holly
Ilex cassine	Dahoon Holly
Ilex decidua	Possumhaw Deciduous Holly
Ilex longipes	Chapman Holly
Ilex glabra	Inkberry
Ilex opaca	American Holly
Ilex verticillata	Winterberry
Ilex vomitoria	Yaupon

6. Burden Woods

Biohabitats and plants for ecological restoration
The Ecological Assessment and subsequent recommendations will definitely increase the significance of this area of the Burden Center and will reflect the intent of its very generous donor Steele Burden.

There is essentially no virgin habitat remaining and regenerating the natural systems and thus minimizing man's footprint will provide a model for visitors and introduce them to techniques that can be implemented in their own personal spaces, no matter how small. Interpretive signage would help. This will further the designated educational mission of the Burden Center.

Identification and preservation of existing ecosystems and appropriate additions will help to protect the natural biotic diversity. Natural communities tend to blend into one another, a continuous mosaic of communities, and microclimates add to the diversity of appropriate plant material. There will be a broad delineation of habitats on these sites, and only trees and shrubs will be suggested.

Habitats

6.1 Upland Longleaf Pine Forest:

This community normally occurs in the hilly uplands of the Central and Eastern Florida Parishes of Louisiana. It occurs on acidic loamy sands to acidic clays and is characteristically dissected by small to large branch or creek bottoms. Normally fire is a frequent natural control and where fire will not occur there will be a number of overstory associates.

Trees:

Pinus palustris	Longleaf Pine
Pinus echinata	Shortleaf Pine
Carya tomentosa	Mockernut Hickory
Carya texana	Texas Hickory
Diospyros virginiana	Native Persimmon
Prunus serotina	Black Cherry
Quercus falcata	Southern Red Oak
Quercus marilandica	Blackjack Oak
Quercus stellata	Post Oak
Sassafras albidum	Sassafras

Shrubs:

Bumelia lanuginose	Chittamwood
Callicarpa americana	American Beautyberry
Cornus florida	Dogwood

Gaylussacia dumosa	Dwarf Huckleberry
Ilex vomitoria	Yaupon
Myrica cerifera	Southern Wax Myrtle
Rhus copallina	Shining Sumac
Vaccinium arboretum	Sparkleberry
Vaccinium darrowii	Darrow's Blueberry
Vaccinium stamineum	Deerberry

6.2 Longleaf Pine Savannah / Bog

This is a habitat characterized by seasonal flooding and is topographically flat with very poor drainage, although there can be occasional hummocks. Soils are typically very acid and have very little peat accumulation; there is often a subsurface layer that slows or blocks permeability; some soils have high sodium content. The water table is near the surface much of the year and soils are almost always saturated in winter, early spring, and periodically through the growing season. In excessively dry weather the soils can develop a hard crust.

Trees:

Pinus palustris	Longleaf Pine
Pinus elliottii	Slash Pine
Myrica cerifera	Southern Wax Myrtle
Persea palustris	Swampbay
Quercus marilandica	Blackjack Oak
Styrax americana	American Snowbell

Shrubs:

Cyrilla racemiflora	Titi / Leatherwood
Gaylussacia dumosa	Dwarf Huckleberry
Hypericum spp.	St. John's Wort
Ilex glabra	Inkberry

6.3 Bayhead Swamp

This is one of the more varied habitats ranging from an evergreen shrub dominated swamp to a mature swamp forest with evergreen shrubs forming the primary understory and midstory. Somewhat similar to wooded seeps it is well-developed and swamp like in some larger areas. They occur in acid depressions in pine flatwods, in the heads of creeks or branches, at the base of slopes and borders of swamps throughout southeastern Louisiana. Soils are usually colluvial in origin, characteristically very acetic and are mostly sandy in texture. They are saturated, inundated or at least moist throughout most of the growing season.

Trees:

Acer rubrum	Red Maple

Liquidamber styraciflua	American Sweetgum
Pinus elliottii	Slash Pine
Magnolia virginiana	Sweetbay Magnolia
Nyssa sylvatica	Black Gum / Black Tupelo
Nyssa sylvatica var. biflora	Swamp Tupelo
Persea borbonia	Red Bay
Quercus laurifolia	Laurel Oak
Quercus nigra	Water Oak
Styrax Americana	American Snowbell
Taxodium ascendens (nutans)	Pond Cypress

Shrubs:

Alnus serrulata	Hazel Alder
Aronia arbutifolia	Red Chokeberry
Clethra alnifolia	Summersweet
Cyrilla racemiflora	Titi / Leatherwood
Ilex coriacea	Large Inkberry
Ilex glabra	Inkberry
Ilex opaca	American Holly
Itea virginica	Virginia Willow
Leucothoe axillaris	Dog Hobble / Leucothoe
Leucothoe racemosa	Swamp Dog Hobble
Lyonia lucida	Fetterbush
Lyonia ligustrina	Male Berry
Myrica cerifera	Southern Wax Myrtle
Myrica heterophylla	Swamp Bayberry
Myrica inodora	Odorless Bayberry
Rhododendron oblongifolium	Texas azalea
Rhododendron serrulatum	Hummock Sweet Azalea
Viburnum nudum	Possum Haw Viburnum

6.4 Calcareous / Wildflower Prairie

This habitat is usually very small in scope and occurs sporadically in South Central Louisiana. Soils are stiff calcareous clays with very high shrink-swell characteristics. Trees and shrubs occur in spotty collections and are not dominant in this eco-system.

Trees:

Berchemia scandens	Supplejack
Bumelia lanuginose	Chittamwood
Crataegus spp.	Hawthorns
Diospyruos virginiana	Native Persimmon
Fraxinus Americana	White Ash
Gleditsia triacanthos	Honey Locust

Juniperus virginiana	Eastern Red Cedar

Shrubs:

Cornus drummondii	Roughleaf Dogwood
Ilex deciduas	Possum Haw
Maclura pomifera	Osage Orange

6.5 Bottomland Forest

This community is a forested, alluvial wetland habitat and occurs in regions that border large river systems, commonly the Mississippi, Pearl, Tensas and Atchafalaya in South and Central Louisiana. It is an ecosystem with fluctuating water levels and is characterized by naturally alternating wet and dry periods. It supports distinctive plant communities. The periodic flooding that occurs in this system produces deposits of particulate and dissolved organic material. As the conditions are anaerobic those plants that occur are indicative of their varied levels of tolerance to these specific conditions. This eco-system produces one of the most varied plant palettes. There are four predominant eco-systems within the Bottomland Forest Habitat:

E1.

Dominant Species:	
Quercus lyrata	Overcup Oak
Carya aquatic	Water Hickory
Associated Understory Species:	
Celtis laevigata	Hackberry / Sugarberry
Cephlanthus occidentalis	Buttonbush
Cornus foemina var. foemina	Stiff Dogwood
Forestiera acuminata	Eastern Swamp Privet
Fraxinus pennsylvanica	Green Ash
Planera aquatic	Planer Tree / Water Elm
Quercus lyrata	Overcup Oak

E2.

Dominant Species:	
Celtis laevigata	Hackberry / Sugarberry
Fraxinus pennsylvanica	Green Ash
Ulmus Americana	American Elm
Associated Tree Species:	
Acer negundo	Box Elder
Acer rubrum var. drummondii	Swamp Red Maple
Carya aquatic	Water Hickory
Gleditsia aquatica	Water Locust
Liquidamber styraciflua	Sweetgum
Platanus occidentalis	American Sycamore

Quercus lyrata	Overcup Oak
Quercus nigra	Water Oak
Quercus nuttallii	Nuttall Oak
Quercus phellos	Willow Oak
Ulmus alata	Winged Elm
Associated Understory Species:	
Cornus foemina var. foemina	Stiff Dogwood
Crataegus spp.	Hawthorns
Morus rubra	Red Mulberry

E3.

Dominant Species:	
Platanus occidentalis	American Sycamore
Liquidamber styraciflua	Sweetgum
Ulmus americana	American Elm
Associated Tree Species:	
Acer negundo	Box Elder
Celtis laevigata	Hackberry / Sugarberry
Carya illinoensis	Pecan
Nyssa sylvatica var. biflora	Swamp Tupelo
Populus deltoids	Eastern Cottonwood
Quercus nigra	Water Oak
Salix nigra	Willow
Associated Understory Species:	
Arundineria gigantea	Canebrake Bamboo
Crataegus viridis	Green Hawthorn
Ilex decidua	Possum Haw
Phytolacca Americana	American Pokeweed

E4.

Dominant Species:	
Liquidamber styraciflua	Sweetgum
Quercus nigra	Water Oak
Associated Tree Species:	
Acer rubrum var. drummondii	Swamp Red Maple
Celtis laevigata	Hackberry / Sugarberry
Crataegus viridis	Green Hawthorn
Fraxinus pennsylvanica	Green Ash
Quercus nuttallii	Nuttall Oak
Ulmus Americana	American Elm
Associated Understory Species:	
Ilex deciduas	Possum Haw
Morus rubra	Red Mulberry
Sabal minor	Dwarf Palmetto

6.6 Upland / Mesophytic Hardwood Forest.

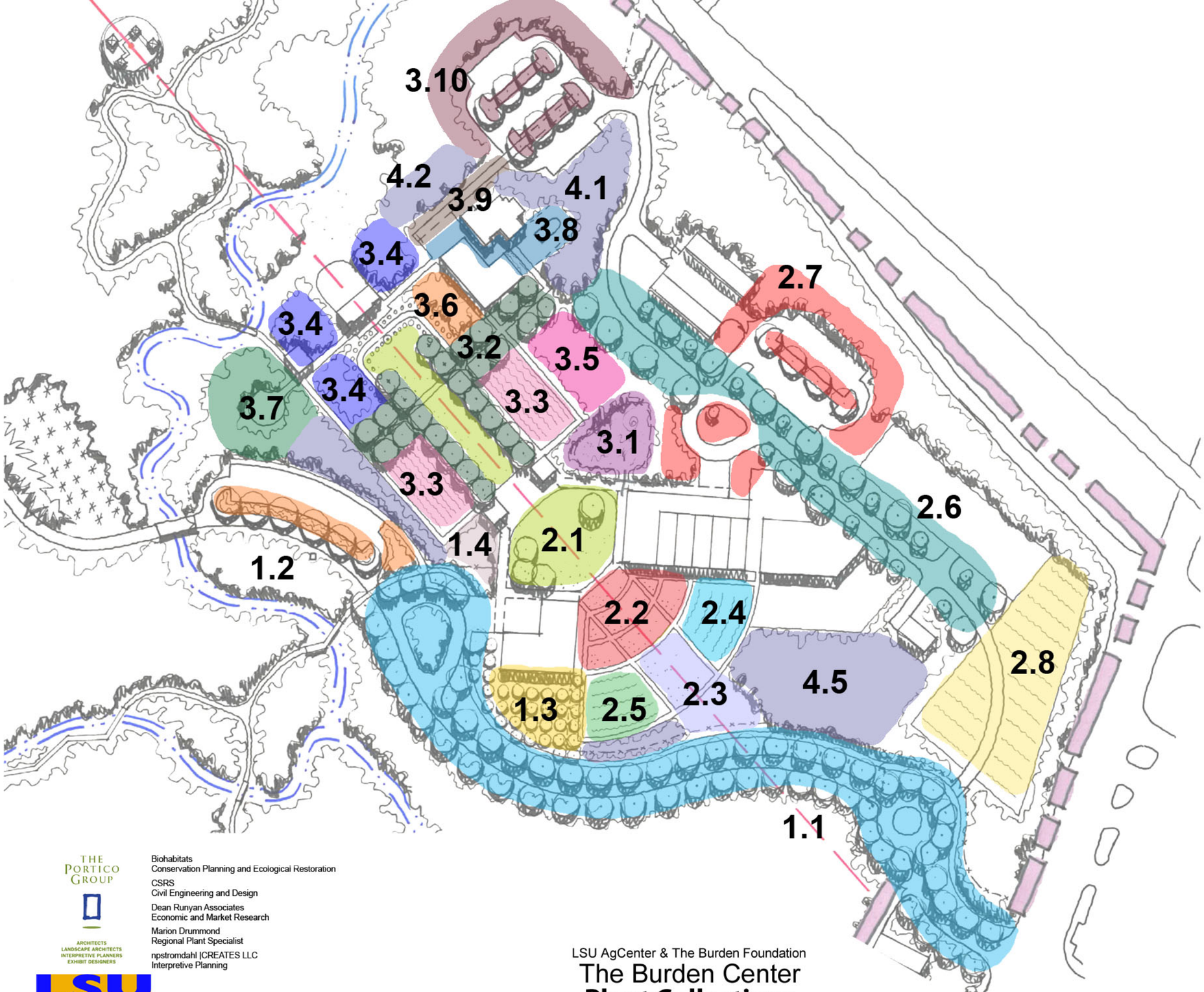
This community occurs in the Tunica Hills region of St. Francisville. The loess soil is deep, fertile and is neutral to slightly alkaline, the results of deposits that have eroded over millennia. The topography is highly dissected with high, narrow ridges, steep slopes and deep ravines, almost all containing intermittent to permanent streams. The result is a relatively cool, moist micro-climate and the region has sustained localized populations of some characteristic Appalachian species presumed to have been pushed south ahead of advancing glaciers in the past ice age.

Trees:

Acer floridanum	Florida Sugar Maple
Carya cordiformis	Bitternut Hickory
Carya glabra	Pignut Hickory
Celtis laevigata	Hackberry Sugarberry
Fagus grandiflora	American Beech
Fraxinus americana	White Ash
Halesia diptera	Two-winged Silverbell
Ilex opaca	American Holly
Liriodendron tulipifera	Yellow Poplar / Tulip Tree
Magnolia acuminata	Cucumber Magnolia
Magnolia grandiflora	Southern Magnolia
Magnolia pyramidata	Pyramidal Magnolia
Morus rubra	Red Mulberry
Ostrya virginiana	American Hophornbeam / Ironwood
Platanus occidentalis	American Sycamore
Quercus alba	White Oak
Quercus falcata var. pagodifolia	Cherrybark Oak
Quercus michauxii	Swamp Chestnut Oak
Quercus nigra	Water Oak
Quercus shumardii	Shumard Oak
Tillia caroliniana	Basswood
Ulmus americana	American Elm
Ulmus rubra	Slippery Elm

Shrubs:

Asimina triloba	PawPaw
Arundinaria gigantean	Canebrake Bamboo
Cercis canadensis	Redbud
Euonymous americanus	Wahoo / Heart's A Bustin'
Hydrangea quercifolia	Oakleaf Hydrangea
Hydrangea arborescens	Mountain Hydrangea
Lindera benzoin	Spicebush
Sambucus canadensis	Elderberry



1 ENTRY GARDENS
1.1 Entry Boulevard
1.2 Introductory Plantings
1.3 Orchard
1.4 Gateway Garden

2 LOUISIANA GARDEN CENTER
2.1 Lawn Terrace
2.2 All American Display Garden
2.3 Vista Garden
2.4 Children's Vegetable Garden
2.5 Culinary Garden
2.6 Oak & Crape Myrtle Boulevard
2.7 Master Gardener Demonstration Garden
2.8 Tree & Shrub Trials

3 TERRACE GARDENS & CONFERENCE CENTER
3.1 Children's Discovery Garden
3.2 Allee
3.3 Roses
3.4 Orangerie Event Gardens
3.5 Camellia Garden
3.6 Ginger Garden
3.7 Therapy Garden
3.8 Courtyard Garden
3.9 Trellis Vines
3.10 Conference Center Parking Lot Plantings

4 ADDITIONAL COLLECTIONS
4.1 Japanese Maples
4.2 Ornamental Grasses
4.3 Magnolia virginiana cvs.
4.4 Ferns
4.5 Conifers for the South

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LSU AgCenter & The Burden Foundation

The Burden Center
Plant Collections
MASTER PLAN

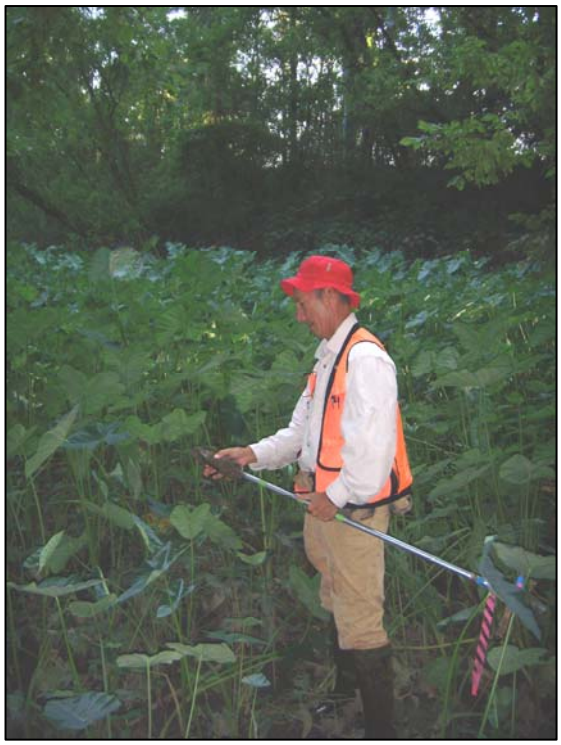
N 0 100' 200' 400'

November 1, 2009

LSU Ag Center
The Burden Center
Master Plan

Ecological Assessment

As part of the master planning process, qualitative observations focused on the general ecological conditions of the grounds were undertaken. The timing of these site inspections allowed for direct examination of the structural changes resulting from both Hurricane Gustav and seasonal plant growth. These observations, along with professional ecological expertise, were subsequently utilized to both inform the master plan and assure that proposed infrastructure modifications were consistent with ecological sustainability.



The following summary highlights the major findings and recommendations with regards to the natural resources and ecological processes that influence the master planning process, as well as sustainability initiatives that can be applied to future planning and site development projects.

I. Site Description

Information presented in this site description represents qualitative observations made during three field visits over a period of about 10 months. These observations were supplemented with existing site information made available by LSU, Baton Rouge and the State of Louisiana. Information collected and noted in field visits focused primary on natural resources and ecological processes most directly related to ongoing master plan strategies.

Landform

The site is generally flat with slopes ranging from 0-3%, with steep slopes adjacent to the Ward Creek flood channel, the former borrow pit in the NW corner and gentle slopes associated with the side-casting berms created as part of historic landscape improvements by Steele Burden. Elevations on the majority of the site range from el. 35 in the western

1/3 of the site to el.25 in the southeast corner of the site. Elevations in the borrow pit range from el. 30 at the interstate right of way to el. 19-20 in the lowest portions of the borrow area. Elevations in the flood channel range from el.16 to el.19. The channel is separated from the borrow pits by side-casting berms which serves as the north bank of the flood channel.

Landscape Ecology and Species Diversity

The Burden Center is situated within the Baton Rouge Metropolitan Statistical Area. This area covers approximately 1,588 square miles and, at the time of the 2000 census, contained a population of 602,894 people. As evidenced by the Cultural Landscape Report developed for this master planning effort, the land use patterns surrounding the Center have been radically altered over the last 65 years. This rapid conversion of the landscape has been documented by the organization "Smart Growth America" which ranked Baton Rouge in 2003 as one of the top 25 most sprawling cities in the United States. Changes in the regional land use patterns have dramatic implications for both the functioning and value of the Burden ecological systems.

As currently configured, the Burden property is geographically isolated from other naturalized parcels of land cover in the region. The highway corridors which bisect and border the property, in addition to the commercial and suburban developments that surround the parcel, effectively inhibit the potential use and colonization of this site by a number of desirable native floral and faunal species. Unfortunately the highways and large amount of edge habitat also combine to increase the risk of invasive species infestation. These organisms tend to be adapted to disturbed conditions and many readily hitchhike with vehicular traffic.

While there is a potential migration corridor to other naturalized areas in the form of Ward Creek, this system has been channelized and degraded to the point where wooded riparian buffers are non-existent along major portions of the stream.

In addition to the severing of connectivity between the Burden landscape and other naturalized woodland systems, the forest cover at Burden has suffered extensive fragmentation. The construction of Interstate 10 dramatically reduced the amount of interior forest that formally existed. As the size of a forest patch directly influences the type of species present, it is probable that the native biodiversity currently present on the site does not reflect historic levels and composition.

While patch size and ecological connectivity have trended in a negative direction for this property over the last several decades, the region, in general, does possess a relatively high level of urban tree canopy. Analysis by the U.S. Geological Survey indicates that vegetative cover occupies over 40% of the Baton Rouge area. The Burden Center is an important component to this system as it constitutes a unique remnant forest tract surrounded by more heavily manicured landscapes. As value is directly proportional to scarcity, the cultural and educational importance of the Burden Center is likely to

increase over time as developmental pressure reduces the number of similar forested systems within the metro area.

Forest Cover
Two major native forest cover types are in evidence at the Burden Center; an upland Oak-Hickory complex and a bottomland Oak-Gum-Cypress system. The forest canopy is primarily composed of trees roughly estimated to be in the 60 to 80 year age class. This is indicative of an even-aged forest system. Active management of the forest appears to have been minimal during the twentieth century with the operational strategy being one of preservation. Significant plantings were undertaken, primarily centered within the manicured areas of the Center such as the Barton Arboretum, oak allee, and Windrush Gardens.

The massive tree failure and subsequent salvage logging that has transpired in the wake of Hurricane Gustav has radically altered the structural configuration of this resource. Light penetration to the forest floor and the removal of woody debris has resulted in an explosive growth of early successional species. In particular, invasive plants such as Chinese privet (*Ligustrum sinense*) and Chinese tallow tree (*Sapium sebiferum*) are rapidly filling in the disturbed areas. While not evenly distributed throughout the forest, some desirable tree regeneration is in evidence. For instance, American sycamore (*Platanus occidentalis*) is beginning to establish in disturbed sections of the "Trees & Trails" area.

While the forest system at Burden is a significant element in the landscape, a large data gap exists as to the spatial, structural, and ecological components of this resource.

Soils
Soils on the site consist of:

- Oprairie Series- silt loam, 0-1% slopes (+/- 33% site coverage)
- Deerford-Verdun complex, silt loam, 0-2% slopes (+/- 33% site coverage)
- Frost Series- silt loam, 0-1% slopes (+/-33% site coverage)

Oprairie and Deerford-Verdun soils are considered somewhat poorly drained. These soils generally have a seasonal high water table within 12 to 18 inches of the surface. These soil series may have inclusions of hydric soil within the map unit. These soil map units are located adjacent to Interstate 10 and in the field areas.

Frost soils are considered poorly drained. Poorly drained soils are considered hydric soils and have a seasonal high water table within 12 inches of the surface during the early part of the growing season. These soils are located in the southeast corner of the site, in a low gradient drainage way located northeast of the field, in the northwest corner of the site and along the Ward Creek flood channel.

Hydrology

Ward Creek flood channel is the significant hydrologic feature on the site. The channel was realigned and excavated in the 1950's to control flooding in the Ward Creek watershed. The historic channel was abandoned and hydrologically disconnected from the realigned and excavated Ward Creek flood control channel. Channel depths in Ward Creek now range from 5 to 10 feet below adjacent grades at the north and south ends of the site to greater than 15 feet through the center of the site. There are several pronounced drainage outfalls from the site that discharge down the steep slope and into the flood control channel.

Remnant meander scars in the landscape provide morphological evidence of the historic Ward Creek. Dry, vegetated reaches of the former streambed are found at the northwest end of the site. To the southeast, the historic reach disappears, but is evident again in the central portion of the site, immediately south of the Rural Life Museum. This portion of the historic reach had water in it on the day of the field work. LSU staff indicated that some portions are spring fed and that supplemental water is added by staff on occasion.

There are definitely one and possibly two storm drain outfalls onto the site from the Interstate 10 right of way. The easternmost outfall discharges to a channel in a dedicated drainage easement. The easement ends at the historic reach of Ward Creek in the southeast portion of the site. A creek-like feature was discovered in the northwest portion of the site during the fieldwork. Topographic mapping would indicate that flows originate from the Interstate 10 right of way as well, but this fact was not confirmed.

There are three manmade ponds on the site. One is in the Barton Arboretum. Two are located immediately east of the Rural Life Museum. Overflow from these ponds discharges directly to the Ward Creek flood control channel.

The agricultural fields in the center of the site have been laser-leveled to direct drainage in the desired direction. Approximately 70% of the fields drain to swales/ditches which outfall to the forest north of the fields. This forested area is mapped as Frost silt loam, a hydric soil. Approximately 30% of the fields drain to the swale/ditch system which discharges directly to Ward Creek flood channel. There are opportunities to improve water quality prior to discharge to the forested wetland and to the Ward Creek flood channel. The pasture northwest of the Rural Life Museum slopes very gently to the south and is the wettest field on the site.

Wetlands

Vegetated wetlands on the site were identified in those areas mapped as hydric soils (Frost silt loam) on the NRCS Soil Survey. There are fringe wetlands immediately adjacent to the three ponds. In those areas mapped as somewhat poorly drained soils, there are likely inclusions of hydric soil that would meet the wetland delineation criteria defined in the 1987 US Army Corps of Engineers Wetland Delineation Manual and the

October, 2008 Regional Supplement for the Atlantic and Gulf Coastal Plain region. The historic reaches of Ward Creek that remain on site may meet these criteria as well.

II. Ecological Recommendations

In general, the following ecological attributes should be considered and fully integrated into the master plan:

- Biodiversity and Landscape Conservation
- Forest Characterization and Restoration
- Invasive Species Management
- Ward Creek and Wetland Restoration

Biodiversity and Landscape Conservation
Despite the fragmentation and relative isolation of the Burden Center woodlands from a landscape level perspective, and the corresponding channelization and loss of riparian habitat along Ward Creek, landscape level processes, reconnection to adjacent natural areas and reestablishing large woodland patches should be considered during master planning and site planning initiatives. More specifically, every effort should be made to restore a native woodland corridor along both sides of Ward Creek while minimizing future road crossings of the stream; maximize forest patch size within the site while minimizing trail and road crossings; and exploring ways to work with adjacent property owners (including Louisiana DOT) to reestablish habitat connections across the regional landscape.

Master planning and site planning initiatives should embrace landscape ecology and conservation biology principles for determining the location and position of site infrastructure and programming. Planning horizons must recognize timescales involved in restoring ecological systems on the site.

Finally, any long term planning should also consider long-term regional and planet scale drivers including future disturbance regimes (e.g. climate change, plant infestations, hurricanes, flooding, etc.)

Forest Characterization & Restoration
The lack of quantifiable data regarding the vegetative composition of the Burden forest severely compromises the ability of the Center to produce a defensible and cost-effective management plan. A comprehensive inventory would allow the Center to develop this data set. This assessment should, at a minimum, record attributes such as species composition in the various forest strata, basal area, regeneration levels and invasive species cover percentages. Ideally, the characterization should include values for forest health, cavity habitat, forest floor deadwood, and natural capital valuation. Sound data is a critical precursor to intelligent decision-making.

The dramatic changes in land cover that have occurred in the Baton Rouge area over the last fifty to sixty years are readily evident when comparing historical aerial photographs to contemporary imagery. Urbanization, and the resulting fragmentation of the forest, is directly effecting woodland composition, function and structure. Historically, the forest system would have responded in a fairly predictable manner to the recent disruption initiated by Hurricane Gustav. However, given the radical land changes adjacent to the Burden Center it is no longer reasonable to expect the forest to follow post-disturbance successional trajectories common in less fragmented environments.

In particular, the ubiquitous presence of invasive vegetation in the forest understory threatens to disrupt the recovery of the Burden tree cover. Invasive plants tend to be early successional opportunists that readily exploit disturbance regimes and the high light / bare soil that accompany mature tree failure. At Burden, species such as Chinese tallow (*Sapium sebiferum*) and Chinese privet (*Ligustrum sinense*) are rapidly displacing native biodiversity in areas of hurricane disturbance. Without active intervention it is highly unlikely that a desirable level of native tree canopy will be established within an acceptable timeframe.

While supplemental planting of desirable species (example – oak) may appear to be a viable option to regenerate the tree canopy, it is not recommended as a primary solution to the restoration of this forest for two reasons;

1. It is not cost effective given the scale of the forest disturbance.

2. It fails to create a viable, regenerating forest system. Instead it creates a “tree plantation” or “park” highly dependent upon energy-intensive planting to remain sustainable.

Tree planting is of greatest value in small, select, high visibility locations that are currently failing to produce effective regeneration.

Forest restoration and management resources should, instead, be directed towards two critical initiatives – forest characterization, and invasive species suppression.

Invasive Species Management

In order to be truly effective, invasive treatment needs to be considered as a tool to be utilized within the context of forest restoration. The ultimate goal is to provide opportunities for, and enhancement of, native regeneration in this woodland. As such, invasive suppression locations will need to be prioritized according to the inherent capacity of a given forest area to recover. Higher value stands with a healthy level of intact biodiversity and strong educational and recreational potential should be given attention first. The recent effort to treat the "Trees & Trails" area is an excellent example of putting this principle into practice.

It is important that the Burden Center avoid undertaking invasive control in a sporadic and inconsistent manner. Due to the high probability of rapid germination of weed seeds from within the soil seedbank, along with the likelihood of new infestations due to seed vectoring from wind, vehicles, and wildlife, it is critical that the Center commit to an annual invasive control program. Invasive suppression should be considered as an annual maintenance expense. Routine interventions will maximize the return on investment from treatment dollars as they avoid the escalation in costs associated with deferred maintenance. While first year treatment costs can range from between $250 to $2,500 per acre depending upon infestation severity these costs will drop an average of 50% per year during the first three years of treatment. After addressing the backlog of existing invasive vegetation, the program should move into a low-cost monitoring phase involving spot applications only.

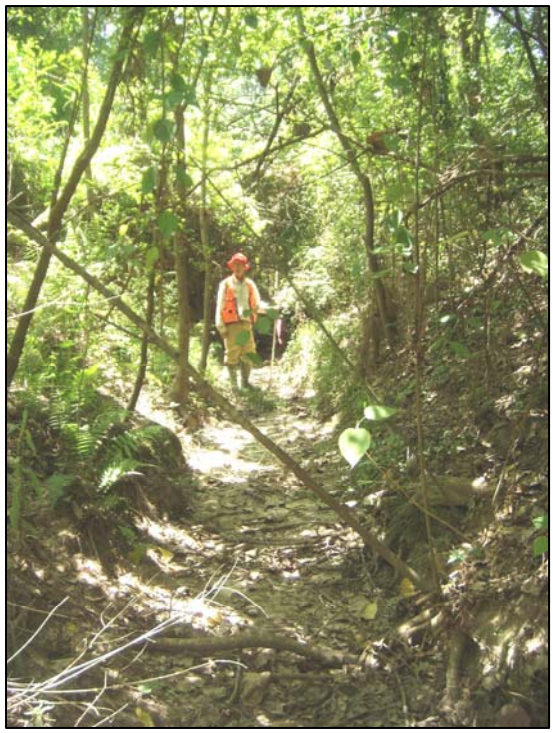
The Burden Center should also avoid non-selective, broadcast spraying of herbicides. Treatment regimes that result in excessive non-target mortality, or that open up the forest floor to additional light penetration are likely to result in one cohort of invasive plants being replaced by another. There is a great deal of desirable vegetation currently growing within the Burden woods and the objective of an invasive program is to encourage forest regeneration, not to kill weeds. The metric for success in the Burden invasive program should be the amount of native vegetation that is restored, not the amount of non-native invasives that are destroyed.

Ward Creek and Wetland Restoration

While re-hydration of the historic Ward Creek meanders would be an ideal solution to reconnecting the hydrology of the floodplain to the creek, field evaluation indicates that this is inadvisable. Two primary considerations are of concern;

1. There exists a large elevation difference between the channelized creek and the historic floodplain meanders. This disconnect would necessitate either energy-intensive pumping or significant changes in topography. Neither option would positively impact the landscape.

2. Ward Creek drains a highly urbanized section of Baton Rouge. As a result, water quality issues are notable. The creek currently backflows into the far western section of the Burden property during periods of high flow and has deposited a disturbing level of flotsam and debris.



As an alternative strategy, it is recommended that the Burden Center consider restoring the Windrush Gardens meanders with stormwater flows originating on-site. Potential opportunities exist to divert runoff from the southern fields, Rural Life Museum, and Windrush ponds to accomplish this goal. Priority consideration should be given to reconfiguring the outflow from the Windrush ponds. As currently constructed, these ponds drain along a heavily channelized ditch that deposits sediment directly into Ward Creek. Retaining this outflow on-site, within the meanders, would both enhance water quality within Ward Creek proper and create an attractive landscape feature of visual and ecological value.

In addition to the Ward Creek restoration, the potential exists to modify the far western section of the property to create a wetland enhancement/wetland mitigation bank area. This component of the Burden Center landscape was lowered approximately 15 feet below historic grade during the construction of Interstate Route 10. As indicated previously, it is subject to backwash from Ward Creek during periods of high flow and entraps a significant level of litter and debris. The boundary of the excavation forms a

steep bluff (Burden's Bluff) that, while vegetated, affords potential elevated views of this area.

A more in-depth analysis of the hydrology of this location should be undertaken in order to properly evaluate the potential of this site for wetland enhancement/mitigation. In the interim, the installation of a bar screen in the area where high flow backwash is entering the property would be advantageous for reducing the excessive amount of litter entrapment.

While this location may eventually serve as a wetland mitigation bank, minor modifications in the near future would immediately enhance its value as a wildlife viewing destination. Modifications to the vegetation, along with the inclusion of nesting structures and viewing blinds, would encourage visitors to the Center to undertake the journey into this seldom utilized section of the campus. It has the potential to become an anchor for the North Woods Loop Trail.

In contrast to the historic Ward Creek meanders and the borrow pit ponds, it is potentially feasible to restore ecological integrity to the drainage flowing north to south through the Black Swamp. During field reconnaissance no major obstacles to this restoration initiative could be found.

The Burden Center should make every effort to incorporate water quality best management practices into the infrastructure of the site to treat stormwater runoff from impervious surfaces and areas where chemicals are being applied to the landscape for research purposes. Water quality BMPs can consist of bioretention basins, sand and peat filters, treatment wetlands and swales.

As part of the Center's mission to provide community outreach and technical extension services, the Center should work with the City of Baton Rouge to encourage communities upstream of the Burden Center to implement stormwater quantity and quality measures to reduce flooding and improve aquatic habitat within the Ward Creek watershed.

Additional Recommendations

In addition to the recommendations provided above, we also believe it would be very valuable for the Burden Center to undertake the following initiatives to better inform further master planning and site design initiatives.

1. Perform a jurisdictional wetland delineation of the entire site by a qualified wetland consultant. The field work should be confirmed by the US Army Corps of Engineers and the confirmed wetland delineation located by survey and placed on a plat of the property. It is further recommended that the jurisdictional status of the delineated areas be confirmed. While State agencies may have jurisdiction,

any wetland areas determined to be isolated by USACOE are not regulated at the Federal level.

2. Perform an on-site characterization of the soils in accordance with NRCS protocols and analyzed for their capability to support the restoration of native plant communities.

3. Perform a biological and morphological survey, along with a hydrological model is prepared for both the Ward Creek flood control channel and the historic Ward Creek. This information will be very useful in identifying future aquatic restoration, water quality enhancement and stormwater management strategies for the site.

III. Sustainability Framework

The Burden Center is encouraged to embrace and expand upon the LSU Sustainability Program and make the Center a showcase for LSU in the implementation and practice of sustainability. By taking on a leadership role in sustainability, the Burden Center will be well positioned to garner outside support for the development and implementation of a sustainability program.

In expanding on property-wide sustainability initiatives, the Burden Center should consider the following attributes of what sustainability means to the people who work, administer, and visit the Center, including:

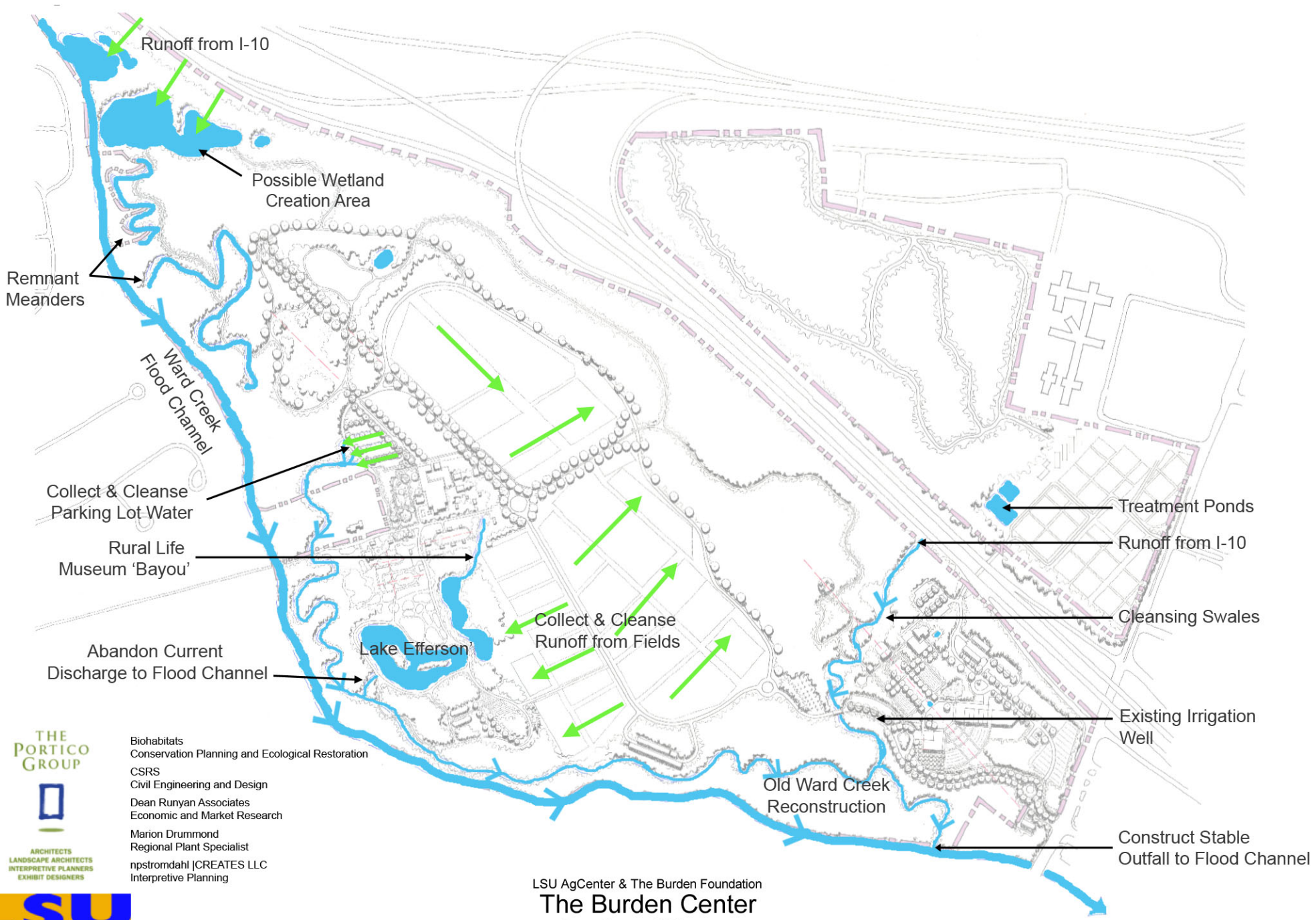
- Definition of Sustainability
- Ecological carrying capacity of the land
- Ecological footprint of current and future practices, development and programs
- Scale and spatial footprint (site + region + planet)
- Integration of Planet, People and Prosperity – Triple bottom line
- Time scale – how fast do we want to facilitate change
- Degree of Sustainability
    - **Business as Usual**
    - **Green** (LEED©, Living Building, etc.)
    - **Sustainable** (living within the ecological carrying capacity of the planet – 1:1)
    - **Restorative** (restoring ecosystems while living within the ecological carrying capacity of the planet)
    - **Regenerative** (fully participatory in restoring life-generating activities and relationships with all species; living within the carrying capacity of the planet)

Ecological Assessment

As a way to frame the various sustainability initiatives, the Burden Center may want to consider the following categories:

- **Biodiversity** – restoring the full range of native biodiversity, including to the extent possible predator-prey relationships, disturbance regimes and succession. Restoring a resilient and healthy ecosystem.
- **Nutrients** – Consider commitment to Zero Waste (solid, air, water). Banning Red listed materials. Preference to locally sources and manufactured materials. Commitment to locally produced food.
- **Water** – Consider and mimic the full hydrologic cycle (precipitation, stormwater runoff, groundwater, potable water and wastewater).
- **Mobility** – Provide for multiple environmentally benign options for people to move throughout the site (without compromising the ecological integrity of the land) and to get to and from the site.
- **Energy** – Consider commitment to Zero Carbon site. Consider commitment to locally produced renewable energy whenever feasible.
- **Inclusiveness** – Facilitate the engagement of the wider LSU and Baton Rouge community in the operations, governance and programming for the site

Finally, the Burden Center may consider developing a '**Story of Place'** that fully integrates the cultural history with the ecological history of the Burden Center. The Story of Place can be used to examine the synergies and interrelationships that have shaped the landscape and its present day uses while exploring the possibilities for future growth and prosperity in a regenerative capacity.



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N

Infrastructure and Permitting

Utilities

Sanitary Sewer

LSU's Burden Center is currently served by a combination of wastewater disposal devices/systems. The Rural Life Museum, situated at the middle western area of the property, is planning to install a small package lift station with a force main discharge to a nearby portion of the East Baton Rouge Parish community sewerage system. The remaining buildings on the site are served by either small individual mechanical treatment units or by septic tanks/drain fields that ultimately infiltrate into the soils or discharge into laterals of the adjoining Ward Creek.

An existing community sewage collection lines runs parallel to, but on the opposite side of Ward Creek along the western boundary of the property, and there is a major sewage pumping station located adjacent to the main entry to the Burden Center on Essen Lane. An upgrade of this pump station is currently being designed by the City-Parish Department of Public Works.

The proposed development of the center mandates a more effective manner of sewage collection and disposal. It is recommended that an 8-inch diameter gravity sewage collection system be installed to convey wastewater from the Conference Center, Louisiana Garden Center and Ornamental & Turf Research Facility to a connection with the parish's lift station.

It is unlikely that the construction of alternative, natural-based treatment systems (e.g. a constructed wetland) would be permitted within this portion of the city.

Water Main

Access to community water is similar to the connections for sanitary sewer. The Rural Life Museum is serviced from a connection to the Baton Rouge Water Company main on Burden Lane, while the Burden Conference Center is served by a connection to the water distribution system main along Essen Lane. Connection of proposed facilities to the community water system should not be a problem.

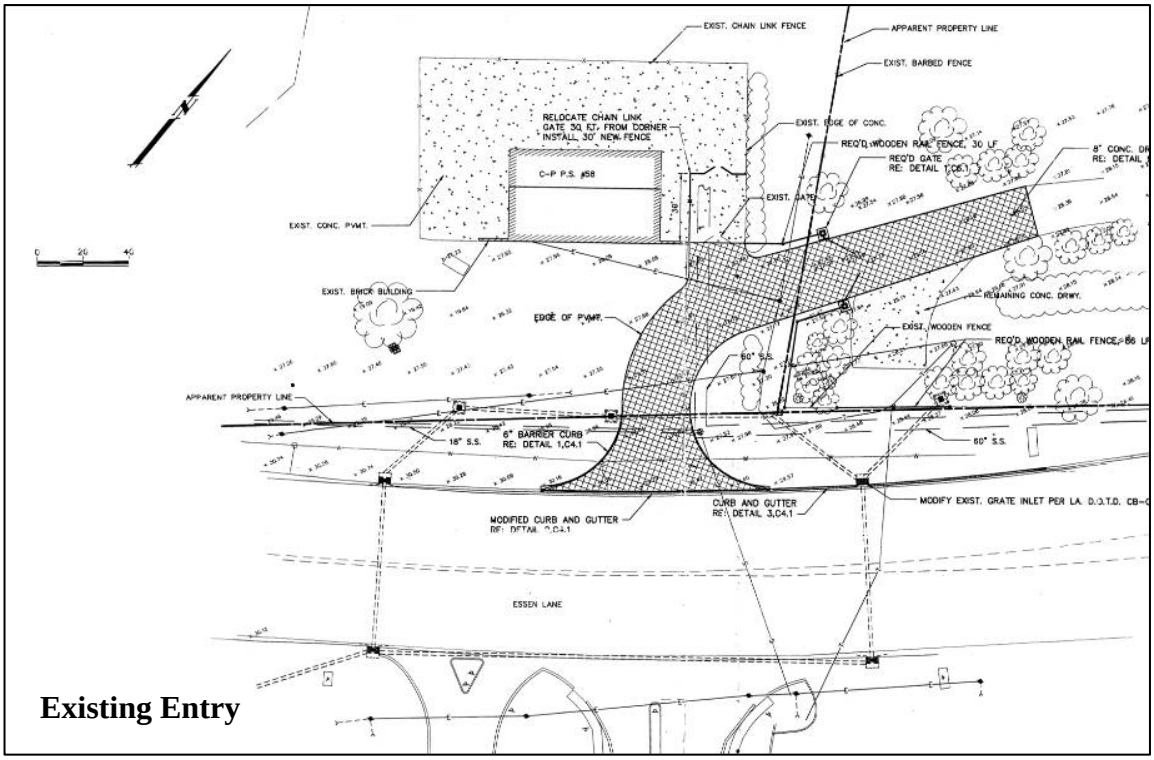
Fire mains, hydrants and other fixtures, such as tees for future buildings, will be installed during construction of the main lines. Building designers should however, request site specific flow and pressure tests to verify required fire flow demands.

Gas Lines
Gas is available on Essen Lane, and can readily be extended to provide the service for the proposed new buildings.

Irrigation
Water for irrigation at the Burden Center is produced through an on-site water well. The pump house which is situated along the south side of the new entry road and parking, just southwest of the proposed Entry Drive near the Rose Garden, will not be impacted by the proposed facilities or land use changes. Irrigation distribution lines which cover the Rose Garden and Gateway Garden will likely be relocated as Master Plan projects are implemented.

Transportation

Entry Drive
A realignment of the entry drive is being proposed for the new Burden Center facility. This new entry would improve site distance, particularly for vehicles that are not at the head of a queue exiting the site. There are proposed changes to Essen Lane under impending LADOTD and City-Parish road projects that should consider the proposed entry realignment.



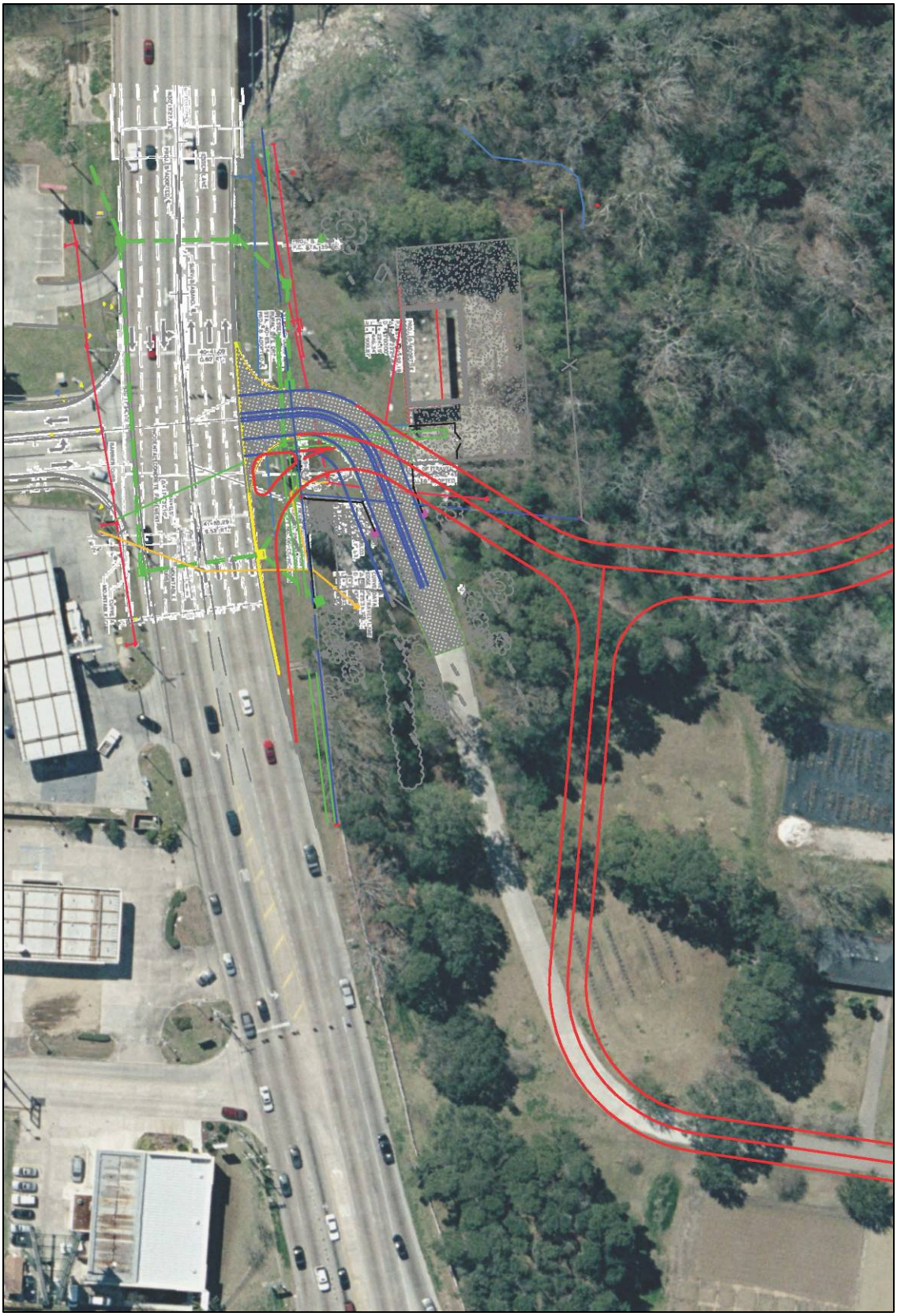
Existing Entry

Currently there is a dedicated left turn lane that is somewhat confusing since it overlaps with the extended left turn lane onto I-10 westbound entry ramp. In addition, future improvements on Essen Lane will eliminate the One Calais outlet onto Essen Lane, creating increased traffic on Essen Park Drive directly across from the Burden entry drive.

LSU Ag Center has initiated discussion with the City-Parish DPW and LADOTD to provide a dedicated left turn signal for entry to the Burden Center.

In addition, revamping the entry drive will require close coordination with the City-Parish and its ongoing re-design of Sewage Pump Station 58. The pump station fence currently impairs the proposed alignment. Re-design of the pump station could include relocation of the pump station entry which would allow the screening of the structure from the view of visitors to the center. Initial discussion with the pump station design consultant indicated that improvements could be made to the pump station that would provide the enhancement of the entry. Additional land (roughly 100 feet deep x the width of the current City Property) would probably be required from the Burden Foundation. There are no planned facilities or uses for this particular tract.

Following is a sketch of a possible realignment for the driveway. Minor modification to the pump station would allow adequate turning radii for the improved entry.



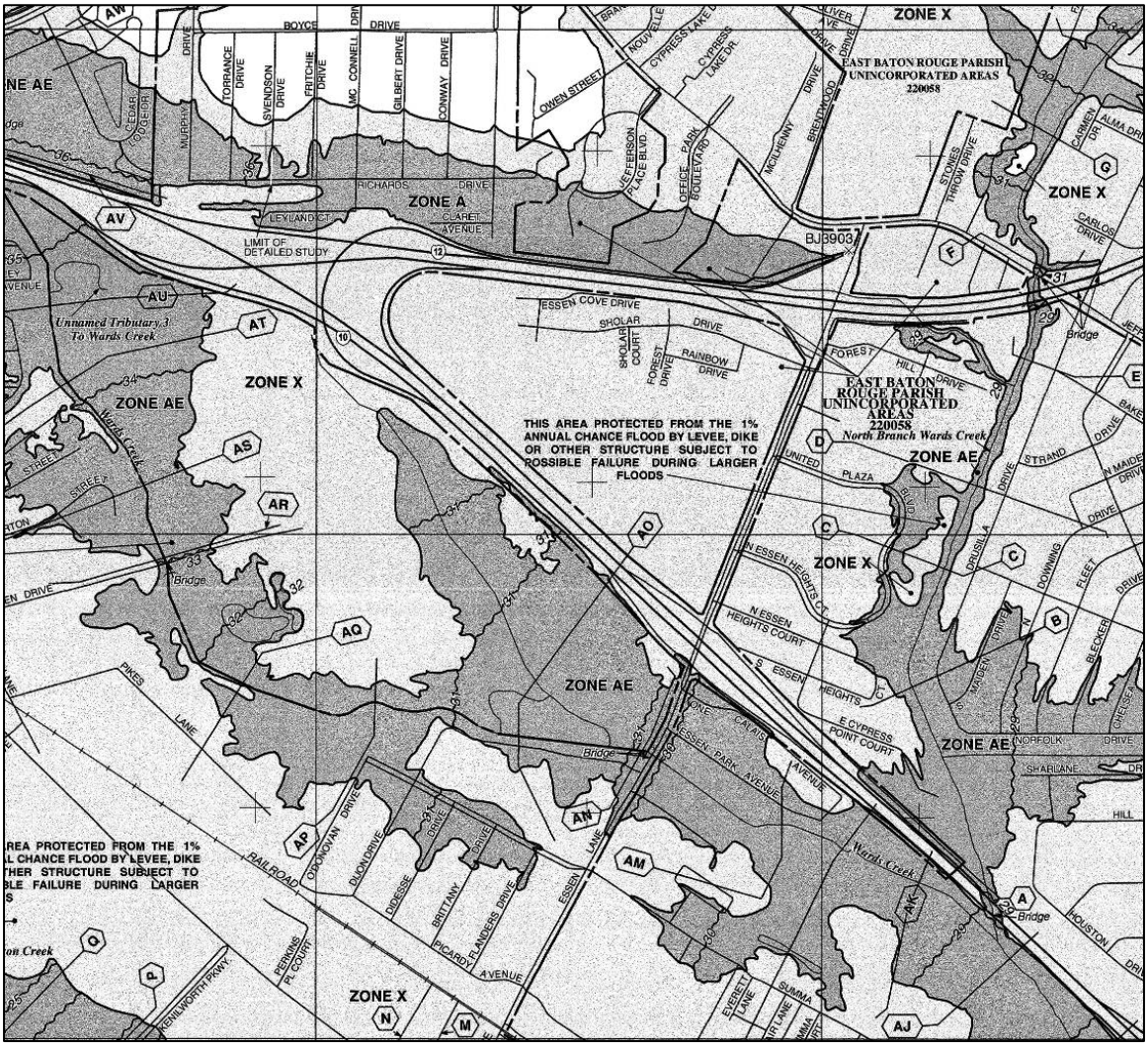
Site Development Permitting

Floodplain Fill Mitigation

Certain portions of the Burden Center lie below the FEMA 100-year floodplain.

While State projects are not subjected to local building codes, it is strongly recommended that the finished floor elevations on all structures comply with local building code. Despite the waiver of local code compliance, the East Baton Rouge Parish flood ordinance requires no net loss of storage in the 100-year flood plain. This will require filing a fill mitigation plan with the City-Parish to account for re-grading of the site or the placement of imported fill into the floodplain.

Wetland permitting (US Corps of Engineers 404 Permit) will also be required for areas that exhibit hydric soils conditions, i.e. soils type, vegetative cover and hydrology.



LSU AgCenter
The Burden Center
Master Plan

Phasing & Implementation

Phase One:

LSU AgCenter Plant Research Facility

1.1 Greenhouses
1.2 Lab and Offices
1.3 Research Fields

LSU Rural Life Museum (RLM)

1.1 Parking Lot and Access Paths
1.2 Rural Life Museum Event Garden
1.3 Windrush Gardens Renovation

LSU AgCenter Botanic Garden

Entry and Headquarters
1.1 Sewer Pump Station Relocation
1.2 Greenhouses and Can Yards Demolition/Relocation
1.3 Entry Road, Turnaround and Service Drive
1.4 Multi-Purpose Path
1.5 Parking Lot
1.6 Gateway Garden
1.7 Lawn Terrace
1.8 Plant Trial Gardens
1.9 Headquarters Building
1.10 Trees & Trails Pavilion
1.11 Steele Burden Memorial Orangerie Renovation
1.12 Orangerie Garden

Phase Two:

LSU AgCenter Botanic Garden

Terrace Gardens and Assembly Center

2.1 Parking Lot Demolition
2.2 Access Drive
2.3 Parking Lot
2.4 Courtyard Garden
2.5 Ginger Garden
2.6 Therapy Garden
2.7 Children's Garden
2.8 Camellia Garden
2.9 All-America Rose Garden
2.10 Assembly Center
2.11 Ione E. Burden Conference Center Renovation
2.12 Garden Pavilions

Phase Three:

LSU AgCenter Botanic Garden

Louisiana Garden Center

3.1 Parking Lot
3.2 Plant Trial Garden
3.3 Master Gardener Demonstration Garden
3.4 Culinary Garden
3.5 Children's Vegetable Garden
3.6 All American Display Garden
3.7 Work Yard
3.8 Master Gardener Education Center
3.9 Shops & Maintenance

Phase Four:

Burden Woods

4.1 Old Ward Creek Reconstruction
4.2 Burden Woods Wetland Reconstruction
4.3 Big Tree House

Phase Five:

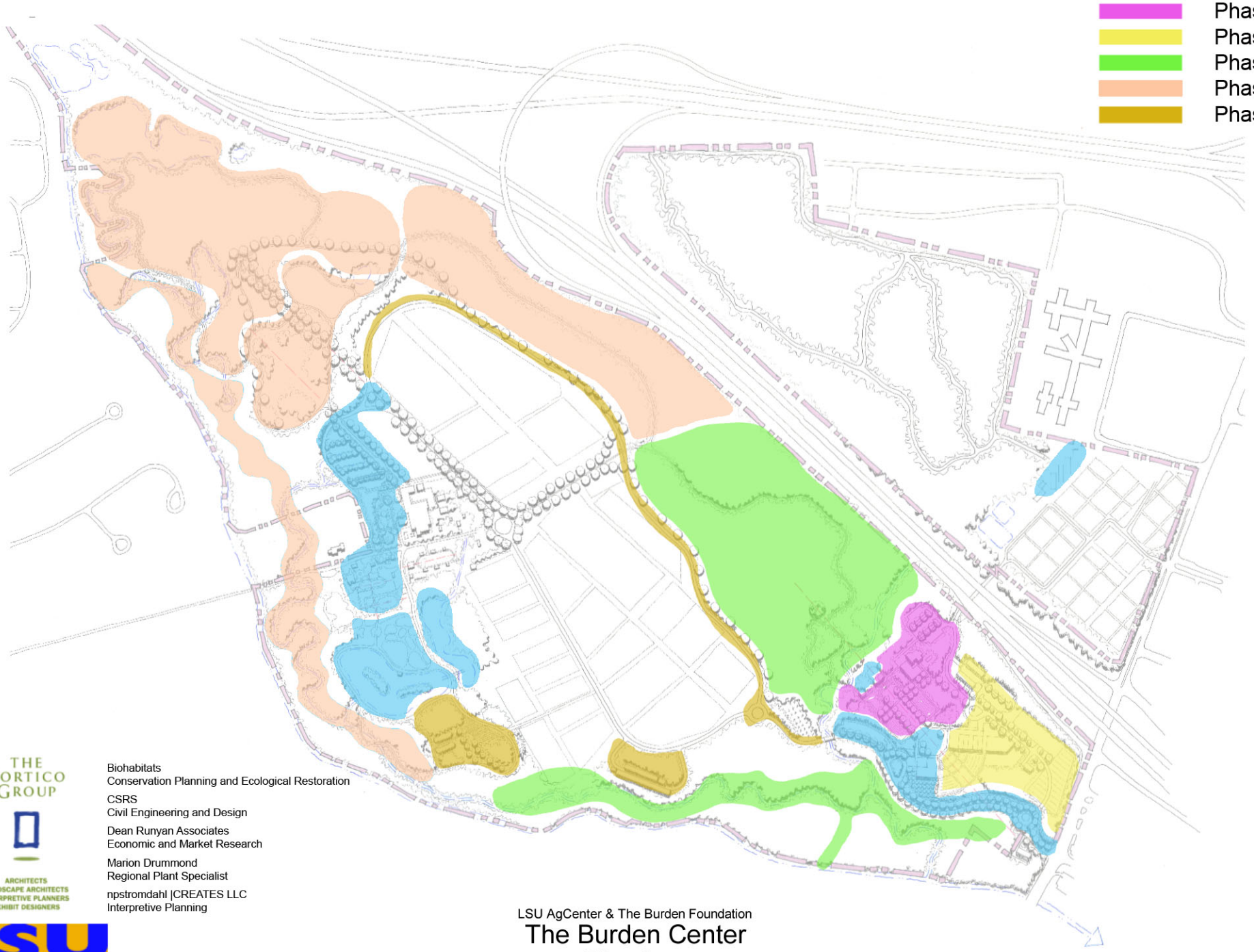
Barton Arboretum

5.1 Barton Arboretum Expansion
5.2 North Woods Loop Trail
5.3 Black Swamp Trail

Phase Six:

Gardens

6.1 Azalea and Camellia Collections Garden



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Phasing

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The Burden Center
Master Plan

Market Analysis and Business Plan

I. Current Conditions and Operations

A large portion of the Burden Center site is dedicated to field research that involves ongoing soil and plant management. While this activity is consistent with the central mission of the Burden Center, the focus here is on educational and recreational activities that involve public visitation to the site.

The Burden Center includes two primary centers of such activity, the constellation of buildings and grounds in the area of the Ione E. Burden Conference Center, and the Rural Life Museum and the adjacent Windrush Gardens. Other portions of the site, such as the Barton Arboretum and the various woodlands and fields, see some additional but limited visitor activity. Field maintenance operations associated with agricultural research are ongoing at all times.

Rural Life Museum

The Rural Life Museum (RLM), including the adjacent Windrush Gardens, is situated on approximately 30 acres on the west side of the Burden Center. The Museum presents an extensive collection of structures and artifacts representing rural life and history in Louisiana and is the largest public attraction on the Burden site, reporting visitation of 60,000 per year.

The Museum has its own Board of Directors, appointed by staff of Louisiana State University, and has an associated support group, Friends of the LSU Rural Life Museum. There are six full time staff, plus a number of seasonal staff and volunteers. The Museum is the only site at the Burden Center with an admission fee, currently $7 for adults. The Museum offers several special events each year that draw a number of visitors to the site.

Windrush Gardens is located adjacent to the Museum and is accessed by visitors via the Museum and its parking lot. Maintenance of Windrush is shared by the AgCenter and the Museum.

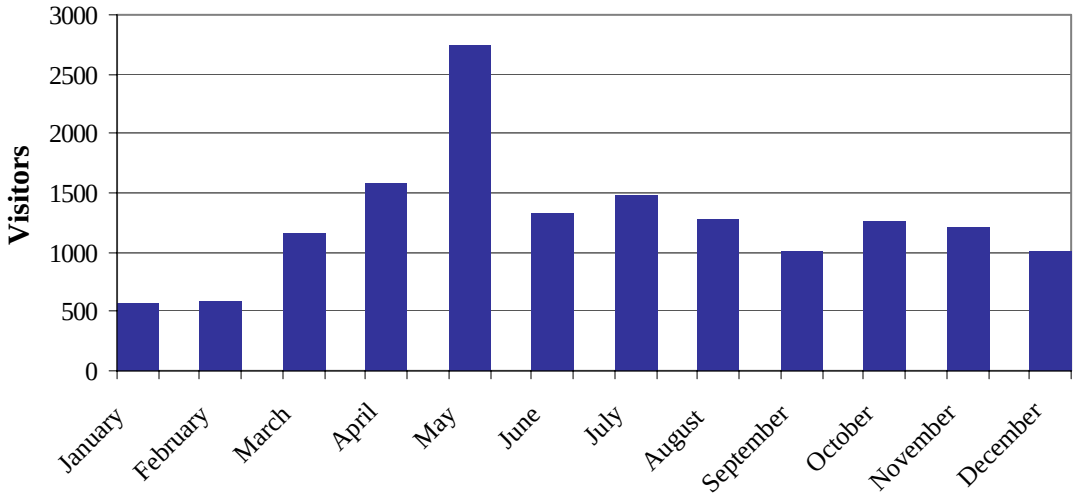
Currently the Museum is constructing a new visitor center that will provide expanded space for exhibits, events, retail and educational programming. An expanded parking lot is planned on an adjacent site.

LSU AgCenter Burden Center Research Station

The constellation of buildings and plantings that constitute the current Burden Center research station and public facilities is located near the entrance to the Burden Center property. The Ione E. Burden Conference Center hosts a number of meetings and events each year, ranging from University research and other meetings to social and community events for which the facility is rented out. Other visitor-oriented components of the site include the rose garden, several other collections planted in the area, and the Orangerie, used for indoor plant display and occasionally for small events. Volunteer activities associated with the Burden Horticultural Society take place in greenhouses and other locations on the site.

The Conference Center has a limited capacity, about 100 people in a banquet setting, but has a full kitchen, entry area, restrooms and easy access to parking. During 2008 there were about 15,000 users. Monthly distribution, which appears in Figure I-1, is concentrated in the spring and summer.

Figure I-1
Monthly Distribution of Visitors



Source: Dean Runyan Associates

II. Market Conditions and Demand Analysis

In considering how to position the Burden Center more prominently as an educational resource and visitor attraction, a number of market considerations are important to consider, including broad regional and national trends, local area market conditions and dynamics, and particular considerations relating to visitation and programming of similar facilities. For purposes of this discussion the focus will be on the garden-oriented aspects of the site and the associated educational and other activities that it may support.

Factors Affecting Demand

Demand for the Center and for travel and recreation in the Baton Rouge area will be influenced by a number of factors, some of which are amenable to local actions and some of which are largely external. In addition, facility design and program choices, as well as operations and marketing, will strongly influence demand. This section reviews some of these factors; additional discussion appears in the last section including a review of findings and recommendations.

Factors affecting other destination locations and attractions will influence the Center's appeal to a substantial degree by, and in particular:

- Population size and growth trends, which particularly affect local and regional demand from both adults and school children
- Demographic characteristics; particularly children and adults aged 50 and older
- Disposable income; income growth typically relates to increased spending on leisure and educational activities
- Travel costs (gasoline in particular) and traffic congestion, which affect the ability of visitors to travel to the area, and are particularly important for those traveling from 100 or more miles away
- Competition from other leisure, recreation and educational activities

This study focuses primarily on the first two factors for purposes of preparing demand trends. These discussions begin with an overview of important demographic and travel influencing all attractions, in particular, national and regional trends over which the Center or any other individual destination has no effective influence. However, before beginning this overview, it is useful to examine the primary market segments the Center will probably pursue, and that will be the focus of the market analysis discussion to follow.

Primary Markets

The market segments the Burden Center will target vary somewhat over time, depending on the level and focus of its development, its draw as a local and regional visitor destination, its visibility and reputation, and choices regarding marketing programs and operational policies. Overall however, the following is a useful segmentation for purposes of discussing demand and the ways the Burden Center is able to develop destinations oriented to potential users.

Segment	Primary Characteristics
Interest/Demographic Categories	
Organized School Groups	Visits as part of one-day field trips, sometimes for longer periods as part of educational programs; generally during spring and fall periods; not a strong source of revenue but a primary focus for education-oriented attractions; An important segment of RLM attendance
Families	Primarily middle-aged households; strong interests in education, hands-on experience; many will live within an hour or two of travel time, although travelers (see next) of this type will be important also
Travelers	Individuals and households visiting the area either overnight or for the day; often looking for recreation and informative and interesting attractions; demand can occur throughout the year due to mild climatic conditions, but the emphasis is on the summer months
Businesses & Associations	Primarily in the local/regional area, interested in locations for meetings and special events; potential for sponsorships
Gardens Enthusiasts	Most often local/regional residents, but can be from throughout North America and from overseas; interested in Center features, horticultural collections, educational programs and special events; empty nest and retired households are an important segment of this group
Geographic Categories	
Local	Households within the immediate area (50 miles), requiring about an hour or less of travel time; most likely to be members, repeat visitors and volunteers
Regional	Households within two or three hours of the facility (125 miles), with day trips possible for this group; many visit to the area for more than one activity; combining a visit to the Center with visiting an attraction or event,

	shopping, visiting friends or relatives, and dining out
Out-of-State/ Foreign	Travelers from out of the region, some of who are visiting the U.S. from a foreign country; research and corporate visitors to the region associated with meetings and other events

Garden planning, facility/program development, and marketing keep all of these segments in mind, as well as other segments becoming significant as development advances. A summary section at the end of this chapter reflects upon these segments in light of the market research findings.

National and International Travel Trends

A number of trends in the U.S. affect the demand for destinations such as the Burden Center, particularly demand from travelers from other parts of North America and foreign locations. Overall, many of these trends are very favorable, although they influence the type of facility and program structure that is most appealing.

Demographics

Aging American Population	The primary population growth is currently in the 55-59 age range, which increased by 29% between 2000 and 2005. This age group is more likely to be empty nesters; only around 20% still have children at home, compared to 75% for those 40-49 years of age. Yet relatively few are retired – only 20%, compared to almost 85% for those 65 years of age or more. The retired population will increase strongly after 2010 (By 2020 the proportion of those 65 years of age or greater will increase by 36%).
More Dual-Earner Households	About 59% of married women are in the workforce in 2005 (compared to 58% in 1990, 50% in 1980 and 40% in 1970), while 75% of married men are in the workforce. With more than one worker, it is more difficult to schedule travel, which often means shorter, more frequent trips. Studies conducted by The Travel Industry Association (TIA) report shorter and leisure-oriented trips taken by married travelers 45 and older now dominate the travel market. Further, short trips (1-2 nights) are now reported to be far more popular than longer trips. Shorter trips tend to be more single-purposed – focused on one or two activities; the most popular consist of shopping, outdoor activities, historical places/museums, beaches or national/state parks. Gaming is popular in Louisiana.
Increasing Incomes for Some Americans	Incomes of professional, educated households have been increasing, producing a segment of the population with adequate resources for travel and recreation. Workers with a Bachelor's or Master's degree had faster income growth, compared to those with a high school diploma. Growth in the higher income markets can be expected to continue, albeit slowly,

	compared to the past decade. In addition, there is a segment that can and will continue to travel, but will do so on a limited basis and be very value-oriented.
Educated Population	The American population is becoming increasingly educated; over a quarter (29%) of American adults, ages 25 and older, have four or more years of college, compared to 24% in 2000, 20% in 1990, 17% in 1980 and 11% in 1970. Educated travelers tend to be interested in information-rich activities.

Travel Trends

Shorter Vacations, More Frequently	North American households are more likely to take long weekend and other relatively short trips; the incidence of extended, multi-destination long-distance travel has been on the decline. More than half of all travel trips in the U.S. are now for two days or less, with only two in ten trips lasting a week or more. Thus a majority of travelers are taking vacations closer to home. Half of Americans in a recent TIA survey of travelers said they planned to travel closer to home.
Slowing Meetings Travel	Travel for meetings, conferences and conventions was on a long-term growth trend throughout the 1990s, associated with the growing US economic activity of the period. This segment declined substantially after 2001 but had been growing again until the recent economic decline.
Organized Group Travel	Organized group travel -- by motorcoach, cruise ship or air transportation -- increased through the 1990s, however, this growth essentially stopped in 2001 and 2002 (with a 9% decline). However, long term increases in this segment should continue, as it is highly correlated to the aging of the North American population and increasing incomes. Much of this travel is during summer and is very value-oriented.
Seasonality	The preferred leisure travel season is June, July and August when well over a third of leisure travel occurs. Family travel in particular is oriented to these three summer months. Spring and Fall travel tend to be somewhat more popular among empty nesters, and is popular in the Southeast due to cooler weather during these periods. Gaming-oriented travel occurs year-around; meetings/convention travel is more oriented to fall and spring.

Demand for Education, Packaged Experiences	The growth in travel and vacation trips including children has increased the demand for educational experiences. Many analysts have noted a "back to basics" sentiment in the leisure travel market since 2001. This means vacations and travel activities involving family, nature and America itself. Trips to visit friends and relatives, visiting national and state parks, and increased interest in America's heritage and culture sites will be the preference.
More Combined Business and Leisure Travel	Travelers are more often extending business trips to include leisure activities. These travelers provide a good market for destinations in or adjacent to major metro areas. Business trips are also more likely to include spouses and children than in the past, (these trips increased 25% between 1994 and 2002, for example, while solo trips declined by over 5%). However, the majority of business trips (74%) are taken by solo travelers.
Increasing Importance of Entertainment	Entertainment is an increasingly important component of travel and recreation, and of education as well; travelers and facility users expect very good presentation, interactivity, and visual appeal. Sports competition and gaming are very popular as well.
Travel Parties and Grandparents	Travel parties including grandparents are increasing. These trips may have an educational focus and would not tend to include strenuous activity.
Increasing Membership Programs	Travel associated with membership programs is increasing: RV clubs, senior citizen organizations, membership reward programs (e.g., frequent fliers). Family reunions are a popular reason for travel.
International Travel in the U.S.	Travel from foreign destinations, like most other segments of travel, increased through the 1990s. Following a decline after 2001, growth has accelerated since 2004, expanding to nearly 56 million arrivals by 2007. Recent travel has decreased however. The most important markets are Canada and Mexico, which send more travelers to the U.S. than any other foreign nations, with 17.8 and 14.3 million arrivals, respectively, in 2007. The UK is the top overseas country for inbound travel, with nearly 4.5 million arrivals, followed closely by Japan with 3.5 million. Germany, France, South Korea, Australia, Italy and Brazil round out the top ten. These travelers are particularly interested in things that are historic, unique and memorable. International travel is strongly affected by exchange rates.

The discussion of primary pertinence of these factors is in the review section at the end of this chapter.

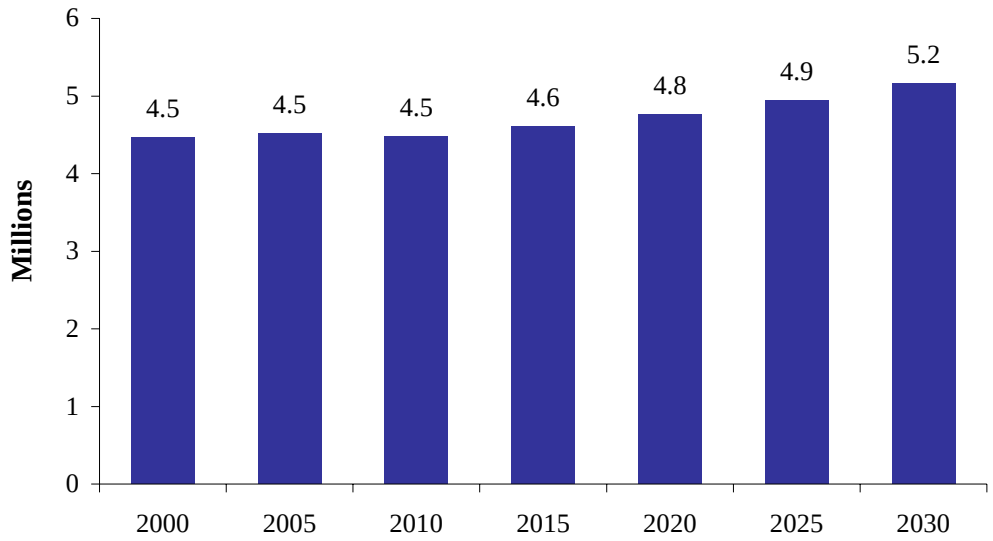
Regional Market Conditions

For a public attraction such as the Center, the immediate Baton Rouge Metropolitan Area and the remainder of Louisiana are the most important markets in terms of visitor volume. These locations also originate nearly all school group and other related education visitors, are the location of most corporate sponsors and users, and are where most users live who might use the Center for personal and business events.

Population

Increasing population often corresponds to a larger market in the future. In this regard the anticipated increase in Louisiana population will be modest, as indicated by Figure II-1. The anticipated growth in population will accelerate in a decade or so, which will result in some increase in Center market size.

Figure II-1
Louisiana Total Population, 2000-2030

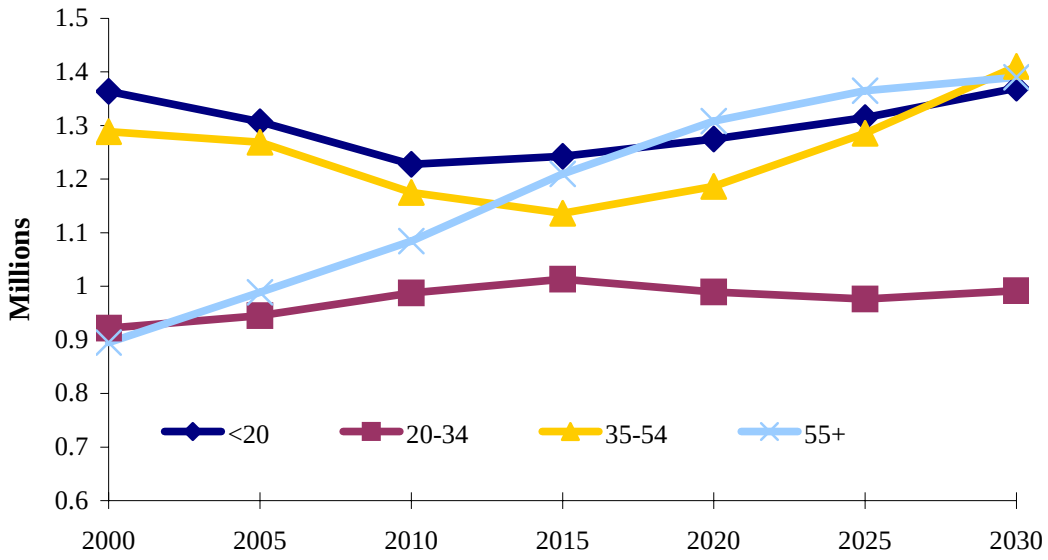


Source: Dean Runyan Associates

Age Characteristics

Although Louisiana population will be increasing, albeit fairly slowly, the age characteristics are more important in the intermediate term. As is apparent from Figure II-2, which shows past and projected Louisiana population by age group, people 55 and over will become much more prominent over the next decade or two. In 2000 this was the smallest of the four age groups in Louisiana, but by about 2018 is projected to become the largest. Over the next decade all other age groups are projected to remain fairly stable or decline. In the longer term, after 2020 or so, the family-oriented age group – 35 to 54 – will begin to increase strongly, bringing children with it.

Figure II-2
Louisiana's Projected Population Growth from 2000-2030



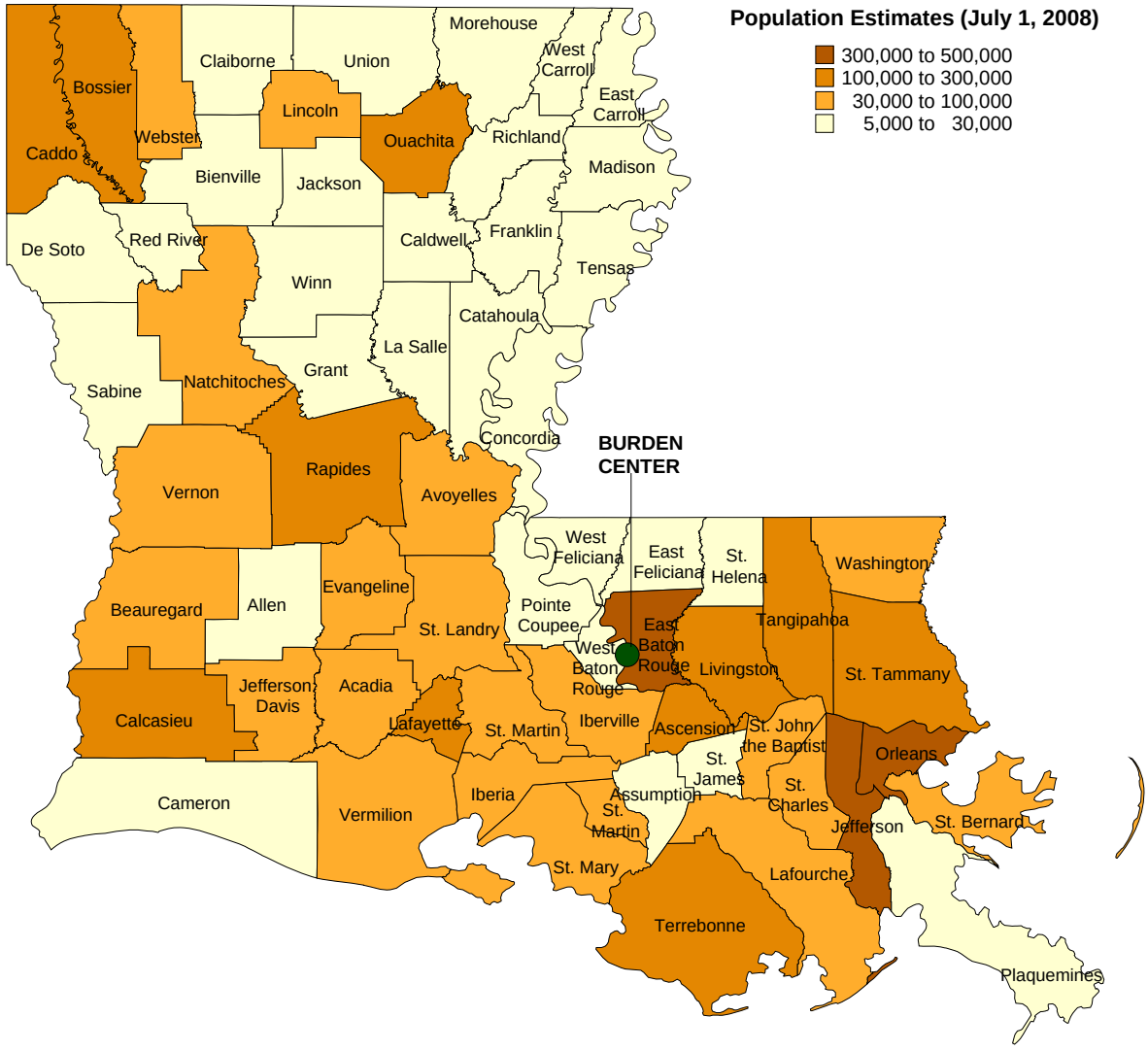
Source: U.S. Census Bureau Census 2000. The Louisiana Parish Population Projections Series, 2010-2030 were developed for the State of Louisiana, Office of Electronic Services, and Division of Administration by Louisiana State University.

These trends indicate that, with respect to the local and regional market, empty nest and retired individuals will become more prominent and a more significant potential target for the Center. Given that this age group is typically an important segment for gardens, the projected population trend is fortuitous. Other segments however, including children, will remain fairly stable for a number of years, indicating that the Center will need to compete with other attractions in order to increase attendance by these individuals.

Population proximity

With respect to attendance, volunteers and members, residents that live close-by are the most important targets. As is evident in Figure II-3, Baton Rouge is located in the most populated area of the state, although the largest population concentrations are in Orleans and Jefferson Parishes. This pattern indicates that there is both local and regional population that is reasonably accessible with regard to Center attendance.

Figure II-3

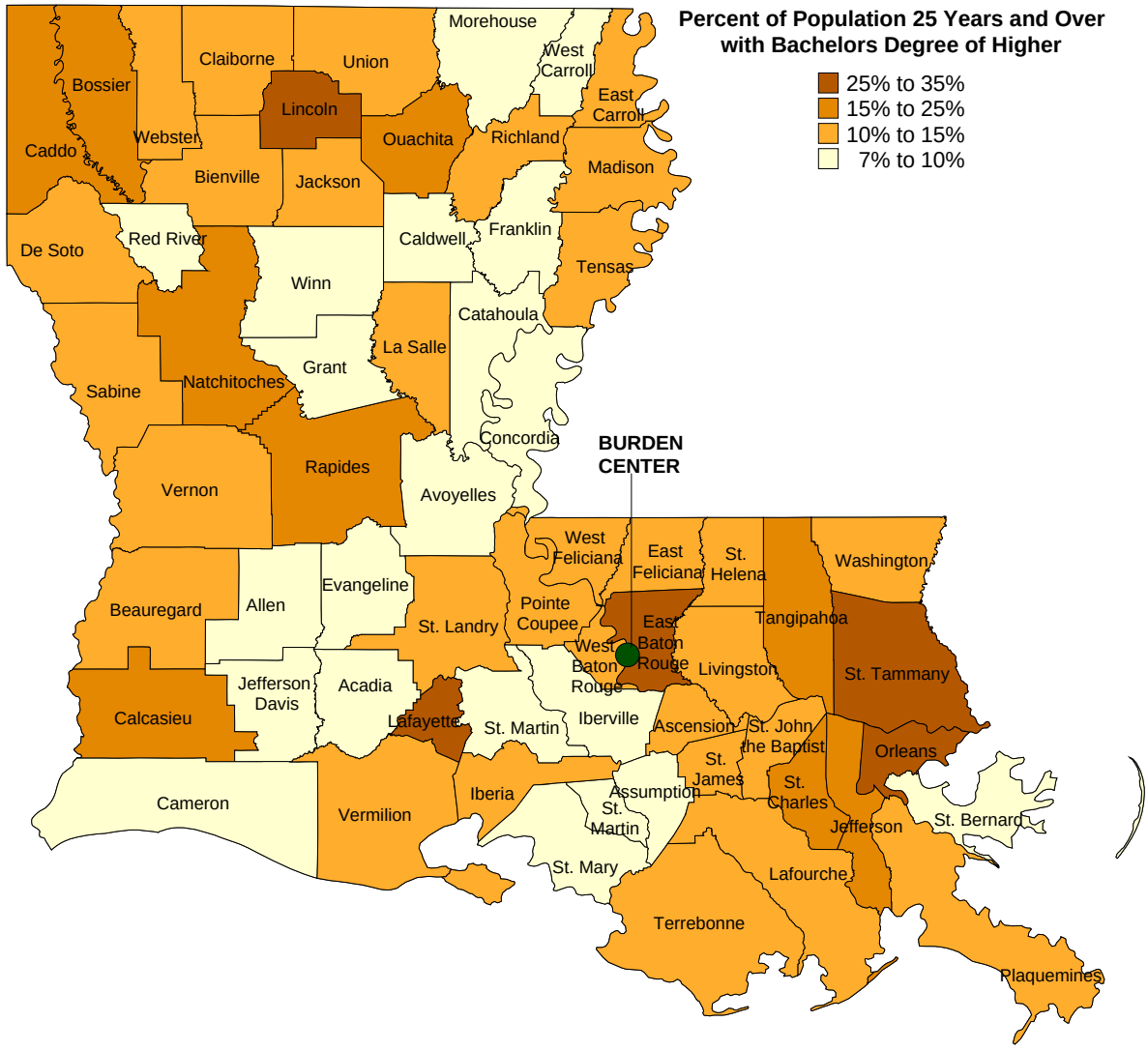


Source: U.S. Census Bureau Census 2000

Population location and education

Educated households are an important segment for gardens, and the patterns evident in Figure II-4 indicate that Baton Rouge represents one of the most educated portions of the state, and the area around New Orleans is significant as well. There is a wide variety of educational achievement within Louisiana, however, which should be considered carefully with respect to Center education and other programming.

Figure II-4

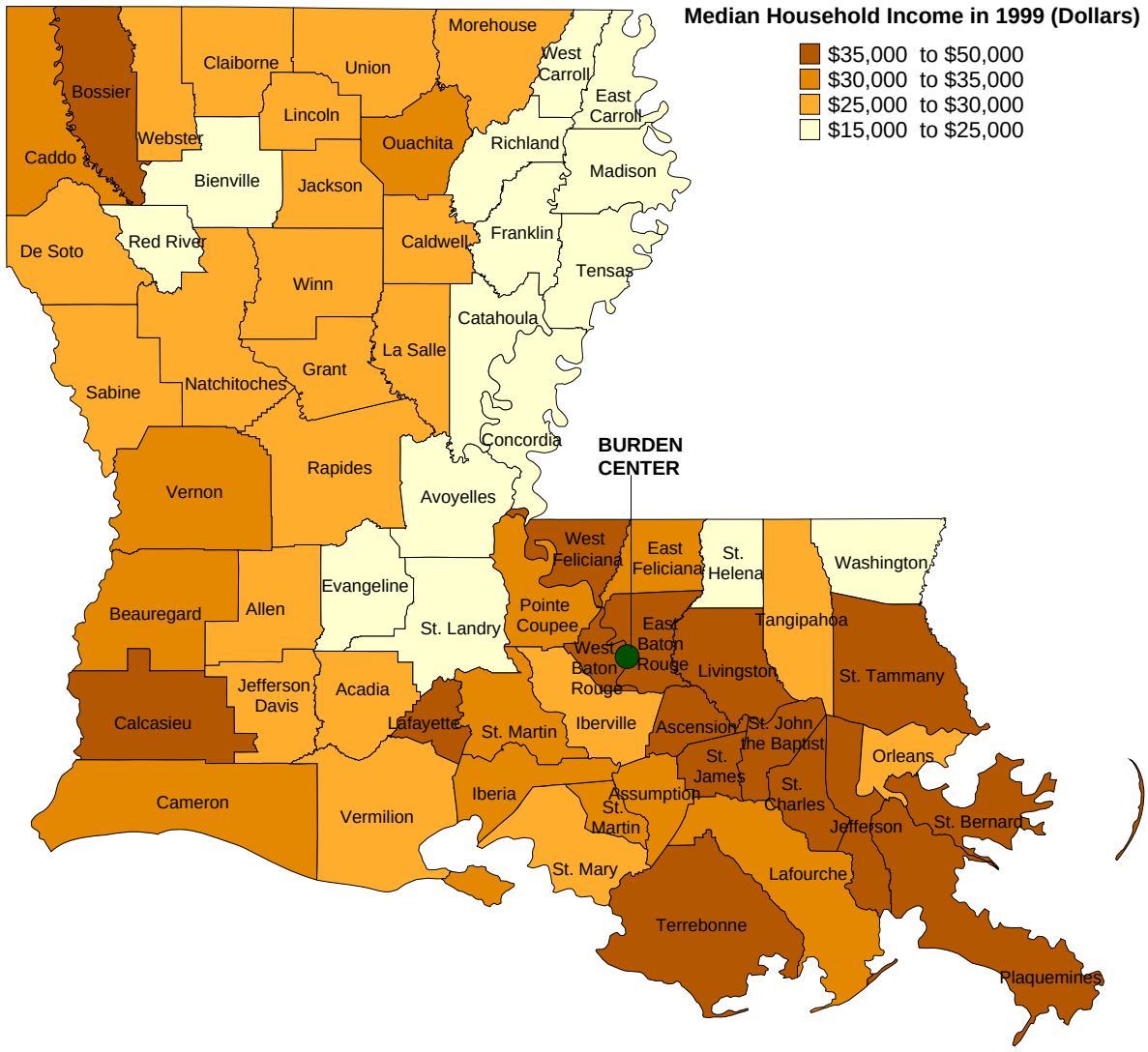


Source: U.S. Census Bureau Census 2000

Income

Households with above average income represent good targets for membership, attendance and contributions. The Center is well situated with regard to the distribution of relatively well-off households in Louisiana, where the Parishes with relatively high median household income are situated largely in a corridor from West Feliciana to Jefferson and Plaquemines Parishes.

Figure II-5



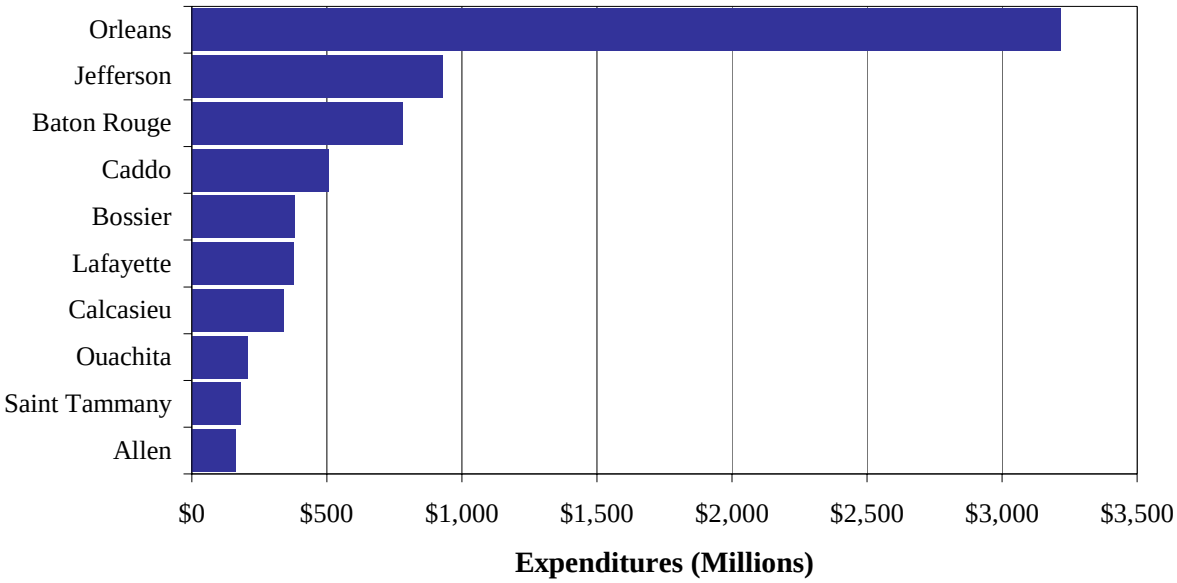
Source: U.S. Census Bureau Census 2000

Travel and Tourism

Travel and tourism is an important industry in Louisiana, particularly in the coastal portions of the state. Unfortunately the economic downturn, in addition to the disruption caused by Hurricane Katrina, has hurt the industry. Total visitor expenditures declined from $9.5 billion in 2004 to $8.7 billion in 2007, which is the most recent data available. The corresponding employment declined from 116,000 to about 101,000. The continuing economic malaise has affected the industry's ability to revive, although the continuing investments in leisure infrastructure and resident housing and business in New Orleans will be beneficial over time.

Among the parishes in the state, however, Baton Rouge's position is not as severe. As is evident from Figure II-6, Baton Rouge (defined as the combination of East and West Baton Rouge Parishes) ranks third in the state. Coastal counties in particular are also important to this industry.

Figure II-6
Expenditures, By Parish

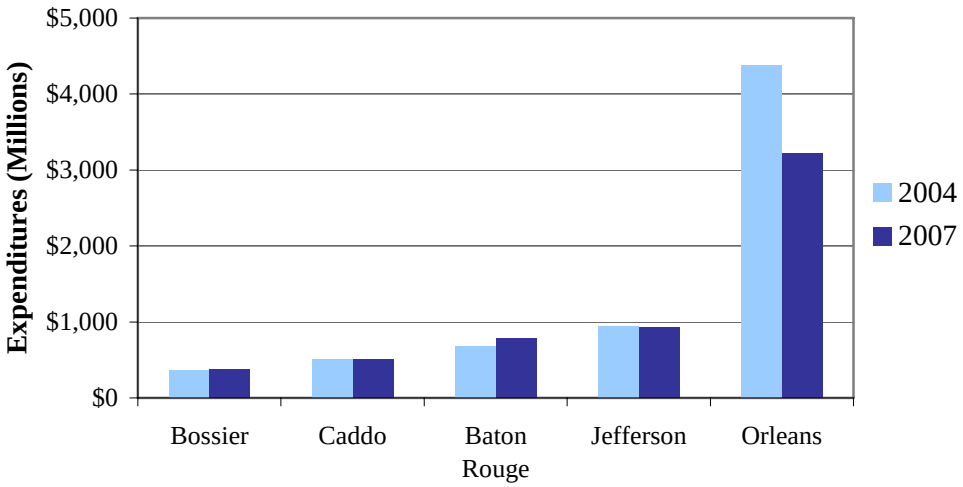


Note: Baton Rouge includes both East and West parishes
Source: Dean Runyan Associates

Unlike Orleans Parish, Baton Rouge saw visitor expenditures grow between 2004 and 2007. See Figure II-7. Orleans and Jefferson Parishes both declined over this period, Orleans in particular. This pattern indicates that Baton Rouge visitor industry is as least somewhat

insulated from the economic and weather-related disturbances that affect the coastal regions and will probably see stability, and perhaps some growth, in the near and intermediate future.

Figure II-7
Top Five Parish Expenditures for 2004 and 2007



Note: Baton Rouge includes both East and West parishes
Source: Dean Runyan Associates

Summary

The following are the primary findings of the market and demographic review:

- Overall Louisiana population is projected to grow modestly, suggesting that the Center's primary market will expand, albeit slowly
- Growth will be strongest among those 55 and older; this group will soon become the largest population segment in the state
- Family age residents will decline over the next 10 years or so, then increase
- The number of young people will remain fairly steady
- The Center is well situated with respect to Louisiana's population concentration and the location of residents with relatively high education and income
- The largest concentrations of those 55 and older are in the southern portion of the state
- Travel and tourism is an important industry in Louisiana and, while oriented primarily to New Orleans, can see future growth in Baton Rouge

III. Comparable Facilities and Potential Pricing

For purposes of attendance and other analysis, a selection of other public gardens was identified to provide perspective on how the Burden Center could develop over the next decade or two. These gardens are all located in the South or Southeast, are modest in size and have active but not extensive visitor programming. They are shown in Figure III-1. Average size for these gardens is about 270 acres, which is somewhat smaller but in the range of the garden acreage associated with the Burden Center.

Figure III-1
Selected Comparable Public Gardens

Facility	Location	Opened	Site (ac)	Comments
Birmingham Botanical Garden	Birmingham, AL	1963	68	Moderate size urban; extensive garden development, weddings and special events
Corpus Christi Botanical Gardens and Nature Center	Corpus Christi, TX	1996	180	Garden plus natural area, moderate size urban; kids camps
Garvan Woodland Gardens	Hot Springs, AR	2002	210	Botanical garden emphasizing natural areas; active event programming; rural
Huntsville Botanical Gardens	Huntsville, AL	1988	112	Moderate size urban; Extensive visiting programming
Houston Arboretum and Nature Center	Houston, TX	1951	155	Portion of city park; trails, discovery center; active school programs
New Orleans Botanical Garden	New Orleans LA	1980	NA	Part of larger city park; extensively developed, events and activities; conservatory
Powell Gardens	Kansas City, MO	1948	915	Developed gardens plus natural area, rural location; good rental facilities
Shangri La Botanical Gardens and Nature Center	Orange, TX	1950/ 2008	252	Recent extensive facility development and new programming for a historic estate and garden
Average			*271*	
The Burden Center	Baton Rouge, LA	1966	*440*	One of LSU AgCenter's 20 research stations; horticulture research projects; formal and informal gardens and woodlands

Source: Dean Runyan Associates

Attendance at these gardens ranges widely, from 350,000 for the Birmingham and Huntsville Gardens to 40,000 for Corpus Christi. Admission fees range from free to $10 adult. It is apparent that other gardens in the region are able to charge reasonable fees and yet attract

substantial attendance. This information also suggests that the proposed enhancements of the Botanic Garden, particularly when combined with the RLM, can be the basis of annual attendance of 100,000 or more. An active special event schedule would result in higher figures.

Figure III-2
Attendance Characteristics, Selected Comparable Gardens

Facility	Total Attendance	Admission Fee	Open Hours
Birmingham Botanical Garden	350,000	Free	8-5 daily
Corpus Christi Botanical Gardens and Nature Center	40,000	$5.00 adult, $2.00 youth	9-5 daily
Garvan Woodland Gardens	134,000	$8.75 adult, $4.50 youth	9-6 daily
Huntsville Botanical Garden	350,000	$10.00 adult, $5.00 youth	May-Sept: Mon-Sat: 9-6, Thurs: 9-8, Sun: 12-6; Oct-April: Mon-Sat: 9-5, Sun: 12-5
Houston Arboretum and Nature Center	200,000	Free	7-7 daily; bldg: 9-5 daily
New Orleans Botanical Garden	NA	$6.00 adult, $3.00 youth	Tue-Sun: 10-4:30
Powell Gardens	85,000	$8.00 adult, $3.00 youth / $6.00 adult, $2.00 youth	Apr-Oct: 9-6 daily; Nov-Mar: 9-5 daily
Shangri La Botanical Gardens and Nature Center	NA	$6.00 adult, $4.00 youth	Mar-Oct: Tue-Fri: 9-5, Sat: 9-7, Sun: 12-5 Nov-Feb: Tue-Fri: 10-5, Sun: 12-5
Average	*144,143*		

Source: Dean Runyan Associates
Note: New Orleans and Shangri La Gardens were suffered hurricane damage and reliable attendance figures are not available

IV. Attendance and Revenue Projections

Priority target markets

A brief exercise during a planning workshop focused on client group preferences for the highest priority segment targets for the Burden Center. The results, based on a single selection (vote) in each category for each participant, are:

Segmentation	Category	Votes
Geographic	Local	2
	Regional	7
	Distant	1
Demographic (age)	Youth group	1
	Young adult	0
	Family	4
	Empty nest/ retired	5
Interest/Activity	Garden enthusiast	2
	Research/academic	1
	Special event/ activity	7

These seem to be very reasonable objectives and accordingly are the focus with regard to developing operational approaches to enhancing Burden Center attendance and revenues.

Attendance Forecast

Because no attendance data are available for the Burden Center other than those for the RLM, the forecast for the Botanic Garden is based on estimated attendance at present and a judgment of likely future demand as a proportion of RLM attendance. Projections appear in Table IV-1. Attendance for 2009 is estimated from events attendance figures and estimated visitation by the public. No school group attendance is included. The estimated total amounts to 22,000, a large portion of which is associated with events.

Admissions in the various categories are assumed to grow over time at 5% per year, with school groups increasing at a faster rate. With the implementation of Phase two in 2016, paid admission is established and event attendance increases due to higher levels of activity. Total attendance increases to about 57,000, rising to about 67,000 in 2020.

For planning purposes paid attendance in 2016 is set at 20,000, representing about a third of the current RLM attendance. This figure, adjusted to represent anticipated increases in attendance in the future, will be used for purposes of calculating admissions revenue. It is

apparent, in light of attendance figures for comparable facilities, that higher levels are certainly possible as garden, trail, event and other facilities are put into operation.

Table IV-1
Projected Attendance

		Admissions			Event				
	Year	Free	Paid	Member	Social	Other	Tour	School Group	Total
	2009	5,000	0	1,000	2,400	13,600	0	0	22,000
	2010	5,250	0	1,050	8,000	13,600	0	100	28,000
	2011	5,513	0	1,103	8,000	13,600	0	500	28,715
1	2012	5,788	0	1,158	8,000	13,600	0	1,000	29,546
	2013	6,078	0	1,216	8,000	13,600	0	1,500	30,393
	2014	6,381	0	1,276	8,000	13,600	0	2,000	31,258
	2015	6,700	0	1,340	8,000	13,600	0	2,500	32,141
2	2016	0	20,000	1,407	20,520	11,520	1,000	3,000	57,447
	2017	0	21,000	1,477	20,520	12,096	1,100	3,500	59,693
	2018	0	22,050	1,551	20,520	12,701	1,155	4,000	61,977
	2019	0	23,153	1,629	20,520	13,336	1,213	4,500	64,350
3	2020	0	24,310	1,710	20,520	14,003	1,273	5,000	66,816

Source: Dean Runyan Associates

Events revenue

The Botanic Garden is projected to develop an active event rental operation, providing high quality space for a variety of corporate, educational and social events. Over time the Botanic Garden is assumed to become a particularly desirable venue for such events and able to command rental fees that are substantially higher than prevail at present. In order to support this activity and provide the necessary levels of service, additional staff will be necessary and are included in the projected staffing levels that appear further below.

For projection purposes three categories of event are assumed: conference and reception events with and without catered food and/or other services, and corporate/educational events. Corporate and education events include seminars, retreats, educational meetings, etc., and can range from a few hours to several days. Relatively low average daily fees and catering expenses are assumed for these events to represent this wide range.

Conference and reception events will typically occupy the facility for two to six hours, depending on the event and required setup. Fees for this type of event can be relatively high if the facility is of high caliber, and catering, if included, can be extensive. For projection

purposes the Burden Center is assumed to earn a 10% commission on all catering expenses for these and other events.

The projected number of events by type and season appears in Table IV-2. Forecasts appear for the first two phases of Master Plan implementation. For Phase One, the existing facility will be available, plus the Orangerie at the time its renovation and expansion is completed, providing substantial additional space that can command a higher fee. Annual use of these facilities is projected to rise to 112 conference/reception events and 208 corporate / educational event days in Phase One. At the time that the additional meetings capability is available in Phase Two, use rises to 228 conference / reception events. Annual corporate/educational event days are projected to remain at 208 in Phase Two. This is a very active level of event hosting by the Botanic Garden and assumes that Conference Center staff are focused on the marketing and operations commitments necessary.

Revenue associated with these events, consisting of event fees (per event or per event day) plus catering commissions, appears in Table IV-3. Daily fees for corporate/educational events are assumed to rise from $250 in Phase One to $300 for Phase Two. During Phase one these events will make use of the current facility and the proposed enhancements in the Orangerie. In Phase Two the new and expanded meeting space will become available.

Fee revenue totals are carried forward to the preliminary operating budget that appears below.

Endowment

Currently the Burden Center receives benefits from at least two endowments; these amounts are included in the LSU revenue amount shown in the operating budget that appears below in Table V-5. All indications are that these endowments will continue to provide revenue in the future, subject to economic conditions and the policies of the managers involved.

In order to represent future endowment opportunities – either additional contributions to current endowment principals or to new endowment accounts – a revenue line is included in Table V-5 that represents additional future endowment proceeds that can be used for Botanic Garden operations. For projection purposes it is assumed that this endowment principal is built quickly as part of the effort to fund the proposed Master Plan implementation. An initial increment of $2 million is assumed to occur in 2010, followed by increments of $500,000 per year for the next four years. After that an annual increase of 10% is assumed, bringing the principal to about $4.7 million by 2020. Burden Center annual revenue from the endowment principal is assumed to be 5% per year, beginning in 2010.

Staff

Current Burden Center staff amount to 16 FTE, as shown in the first column of Table IV-4. For projection purposes, the existing staff are organized into departments that pertain to suggested staff increases in the future. Projections are shown in the subsequent columns that represent the first three phases of Master Plan implementation. Staff levels and salaries have been selected based on judgments regarding the level of effort required for implementation at each level, as reviewed by current Burden Center staff. Indirect labor costs, such as or employment taxes and employee benefits, are not included in these figures.

Staff are projected to increase from the current 16 FTE to 19.5 during Phase One implementation. Staff size increases more substantially as the more extensive facilities and programs of Phases Two and Three are implemented, rising to 28.5 and 33 FTE respectively. Projected staffing levels assume that volunteer assistance will be available for a variety of Botanic Garden programs, in particular education activities, fund-raising events and garden development and maintenance.

Market Analysis and Business Plan

Table IV-4
Projected Staff and Budget

Position	*Current* FTE	*Phase I* FTE	*Phase I* Salary	*Phase I* Budget	*Phase II* FTE	*Phase II* Budget	*Phase III* FTE	*Phase III* Budget
Administration								
Resident Director & Professor	0.5	1.0	100,000	$100,000	1.0	$100,000	1.0	$100,000
Assistant Director	0.0	0.0	65,000	$0	1.0	$65,000	1.0	$65,000
Administrative Coordinator IV	1.0	1.0	Incl.	Incl.	1.0	Incl.	1.0	Incl.
Administrative Coordinator	1.0	1.0	Incl.	Incl.	1.0	Incl.	1.0	Incl.
Accounting/Business Manager	0.0	0.0	40,000	$0	1.0	$40,000	1.0	$40,000
Subtotal	2.5	3.0		$100,000	5.0	$205,000	5.0	$205,000
Marketing/Membership								
Marketing Director	0.0	0.5	40,000	$20,000	1.0	$40,000	1.0	$40,000
Communications Assistant	0.0	0.0	30,000	$0	0.0	$0	0.5	$15,000
Subtotal	0.0	0.5		$20,000	1.0	$40,000	1.5	$55,000
Events Management								
Special Events Coordinator	0.0	0.5	35,000	$17,500	1.0	$35,000	1.0	$35,000
Events staff	0.0	0.0	25,000	$0	1.0	$25,000	1.0	$25,000
Subtotal	0.0	0.5		$17,500	2.0	$60,000	2.0	$60,000
Education								
Education Coordinator	0.0	0.0	35,000	$0	0.5	$17,500	1.0	$35,000
Staff	0.0	0.0	30,000	$0	0.5	$15,000	1.0	$30,000
Subtotal	0.0	0.0		$0	1.0	$32,500	2.0	$65,000

Research								
Research Director	0.5	0.5	Incl.	Incl.	0.5	Incl.	0.5	Incl.
Research Farm Manager	1.0	1.0	Incl.	Incl.	1.0	Incl.	1.0	Incl.
Assoc -- Ornamental research	1.0	1.0	Incl.	Incl.	1.0	Incl.	1.0	Incl.
Research Farm Specialists	3.0	3.0	Incl.	Incl.	3.0	Incl.	3.0	Incl.
Subtotal	5.5	5.5			5.5		5.5	
Garden Operations								
Master Gardener Coordinator	1.0	1.0	Incl.	Incl.	1.0	Incl.	1.0	Incl.
Farm manager	1.0	1.0	Incl.	Incl.	1.0	Incl.	1.0	Incl.
Windrush Gardens curator	1.0	1.0	Incl.	Incl.	1.0	Incl.	1.0	Incl.
Greenhouse crops and master gardener advisor	1.0	1.0	Incl.		1.0	Incl.	1.0	Incl.
Landscape beds	1.0	2.0	30,000	$60,000	4.0	$120,000	5.0	$150,000
Arborist	1.0	1.0	Incl.	Incl.	1.0	Incl.	1.0	Incl.
Maintenance Repairer Master	1.0	1.0	Incl.	Incl.	1.0	Incl.	1.0	Incl.
Mobile Equipment Master Mechanic	1.0	1.0	Incl.	Incl.	1.0	Incl.	1.0	Incl.
Hourly labor	0.0	0.5	20,000	$10,000	1.0	$20,000	1.0	$20,000
Subtotal	8.0	9.5		$70,000	12.0	$140,000	13.0	$170,000
Buildings and Security								
Custodial staff	0.0	0.5	25,000	$12,500	1.0	$25,000	1.5	$37,500
Public Safety staff	0.0	0.0	30,000	$0	1.0	$30,000	1.0	$30,000
Subtotal	0.0	0.5		$12,500	2.0	$55,000	2.5	$67,500

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Retail								
Gift Shop Manager	0.0	0.0	35,000	$0	0.0	Incl.	0.5	$17,500
Hourly labor	0.0	0.0	20,000	$0	0.0	Incl.	1.0	$20,000
Subtotal	0.0	0.0		$0 #	0.0	$0	1.5	$37,500
Food Service								
Staff	0.0	0.0	Incl.	$0	0.0	0	0.0	0
Total	16.0	19.5		$220,000	28.5	$532,500	33.0	$660,000
Total + Current				$662,389		$909,889		$1,037,389

Source: Dean Runyan Associates
Notes: Excludes revenues and expenses of the Rural Life Museum and the Burden Horticultural Society. Figures are in constant 2009 dollars.

Current salaries (excl fringe) $442,389

Fringe = 32%

V. Preliminary Operating Budget

A preliminary operating budget for the Botanic Garden appears in Table V-5. It shows projected revenues and operating expenses for the period 2009 (based on estimates for the current year) extending to 2020. These figures illustrate a level of Master Plan implementation and operation, including the associated program development and marketing that would result in revenue generation that is adequate to cover projected operating costs.

The specific conventions used for this budget are as follows:

- All figures are in constant 2009 dollars
- Average attendance fees are a combination of adult and other fees, as shown in Table V-6
- Gift show sales, which appear in 2020, are projected at $1 per visitor; cost of sales is 50%
- Contributions are projected to surge to $60,000 in 2010, decline to $40,000 in 2011 and to $20,000 in 2012, and rise thereafter at 5% per year; most ongoing contributions for operations support are assumed to go to the endowment account(s)
- Administrative overhead cost on salaries is 32%, as at present
- Advertising and event expense budgets are assumptions of modest increases over current levels; additions funds, if available, would be very desirable
- Operating service and supplies expenses are assumed to maintain at current levels until implementation of Phase Two, at which time they increase at 30%

Table V-5
Preliminary Operating Budget

Category	Current (2009)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
					Year							
Projected attendance	22,000	28,720	28,715	29,546	30,393	31,258	32,141	58,567	60,653	62,769	64,966	67,247
Revenue:				Phase 1				Phase 2				Phase 3
Earned Revenue												
Admissions	$0	$0	$0	$0	$0	$0	$0	$101,000	$106,050	$120,724	$126,760	$133,098
Group Tours/Sales	$0	$0	$0	$0	$0	$0	$0	$10,000	$10,000	$10,000	$10,000	$20,000
Conf/Recept'n fees	$0	$157,200	$157,200	$157,200	$157,200	$157,200	$157,200	$442,800	$442,800	$442,800	$442,800	$442,800
Corp/Other Mtng Fees	$50,000	$60,320	$60,320	$60,320	$60,320	$60,320	$60,320	$70,720	$70,720	$70,720	$70,720	$106,080
Gift Shop	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$67,247
Subtotal	$50,000	217,520	217,520	217,520	217,520	217,520	217,520	624,520	629,570	644,244	650,280	769,225
Contributions/Other	$0	$60,000	$40,000	$20,000	$21,000	$22,050	$23,153	$24,310	$25,526	$26,802	$28,142	$42,213
Additional Endowment	$0	$100,000	$120,000	$139,000	$157,050	$174,198	$182,907	$192,053	$201,655	$211,738	$222,325	$233,441
LSU	$671,594	$671,594	$671,594	$671,594	$671,594	$671,594	$671,594	$671,594	$671,594	$671,594	$671,594	$671,594
Total	$721,594	$1,049,114	$1,049,114	$1,048,114	$1,067,164	$1,085,362	$1,095,174	$1,512,477	$1,528,345	$1,554,378	$1,572,341	$1,716,473
Expenses:												
Salaries/Wages	$442,389	$662,389	$662,389	$662,389	$662,389	$662,389	$662,389	$909,889	$909,889	$909,889	$909,889	$1,037,389
Administration/Overhead	$141,564	$211,964	$211,964	$211,964	$211,964	$211,964	$211,964	$291,164	$291,164	$291,164	$291,164	$331,964
Advertising	$0	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$40,000	$40,000	$40,000	$40,000	$40,000
Event Expenses	$0	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$40,000	$40,000	$40,000	$40,000	$40,000
Gift Shop	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$33,623
Operating Services	$80,381	$80,381	$80,381	$80,381	$80,381	$80,381	$80,381	$104,495	$104,495	$104,495	$104,495	$104,495
Supplies	$57,260	$57,260	$57,260	$57,260	$57,260	$57,260	$57,260	$74,438	$74,438	$74,438	$74,438	$74,438
Total	$721,594	$1,051,994	$1,051,994	$1,051,994	$1,051,994	$1,051,994	$1,051,994	$1,459,986	$1,459,986	$1,459,986	$1,459,986	$1,661,910

Net Revenue	$0	-$2,880	-$2,880	-$3,880	$15,170	$33,368	$43,180	$52,491	$68,359	$94,392	$112,355	$54,563

Notes: constant 2009 dollars throughout.
Figures exclude Rural Life Museum and the Burden Horticultural Society

Table V-6
Average Attendance Fees, by Year

Year	Adult	Senior	Child 6-12	Child 5 under	Total/ Avg
Proportion	50%	35%	10%	5%	100%
Admission fee	$6.00	$5.00	$3.00	$0.00	$5.05
2016	$6.00	$5.00	$3.00	$0.00	$5.05
2017	$6.00	$5.00	$3.00	$0.00	$5.05
2018	$6.50	$5.50	$3.00	$0.00	$5.48
2019	$6.50	$5.50	$3.00	$0.00	$5.48
2020	$6.50	$5.50	$3.00	$0.00	$5.48

Source: Dean Runyan Associates

As is evident from the net revenue line, revenues approximately cover costs through 2012 and the implementation of Phase One, at which time they begin to become more positive. This positive trend is supported in particular by a combination of earned revenue from venue rentals, endowment earnings and, in 2016, additional revenue from an admission fee. Presumably at this time any of the operating "surpluses" can be used to reduce the annual University financial commitment to Burden Center operations.

As stated previously, these figures should be viewed as projections that represent a combination of plan implementations and operating activities, such as marketing, educational and other programming, and good quality service. Changes in the composition or timing of facility and program enhancements should be matched with adjustments in the various assumptions that underlie this proforma analysis.

VI. Implementation and Operations Recommendations

With regard to operations and financial development, we make three primary recommendations, plus several that are more specific.

Increase the organizational coordination between the Botanic Garden and the Rural Life Museum.

At present there is substantial overlap between these two facilities with regard to administration, and as the Burden Center Master Plan is implemented the overlap will extend further into events planning, marketing, facilities maintenance and a variety of other areas. Furthermore, as the Botanic Garden facilities become more prominent and become the focus of more drop-in and event visitors, the presentation of the Burden Center as a public attraction will become more confusing to the visitor. The site will consist of an attraction within an attraction, each with separate parking locations and circulation, and, presumably separate admission fees. While a combined fee can be established, requiring the visitor to make choices among several fee options is undesirable.

Combining the two facilities to form a single attraction, with a single admission fee, appears to be the most desirable. While such a change may require further discussion among the LSU units involved, we encourage the University to pursue this option.

Enhance the Botanic Garden's capacity to host a variety of conference, educational and corporate events

In order to reduce the University's annual financial commitment to Burden Center operations we suggest that additional emphasis be placed on using Botanic Garden facilities for a variety of conference, educational and corporate events. This emphasis includes constructing and operating facilities that serve effectively in this regard, and bring on staff who are experienced with the marketing and operations involved. This source of revenue is one of the few competitive advantages that the Botanic Gardens has and we encourage as much use of it as is comfortable.

Increase the endowment funds available to the Botanic Garden.

Enhancing Botanic Garden endowment revenue, like increasing revenue from facility rentals, is an available option for reducing University financial support. Every effort should be made to build endowment principal, and to avoid withdrawing any more each year than the 5% minimum required. Because endowments are most significant after they have grown, we suggest an initial push to begin the growth process as quickly as possible.

Other suggestions are as follows:

- Establish a particularly appealing, well organized and high quality facility allowing the Burden Center to attain regional and national attention from garden enthusiasts, researchers, educators and others; this level of visibility will be necessary in order to gain attendance from elsewhere in the state and from out-of-state
- Offer a well developed program of special events each year, at least three, that highlight the Burden Center and its attributes and being visitors from throughout the community and the region; these events can be enhanced as the associated Botanic Garden Master Plan facilities are put in place
- Build a successful educational program that builds on the Botanic Garden's attributes, shows the Burden Center's commitment to education and helps provide the rationale for soliciting support from foundations and donors
- Market the facility well, both locally and regionally; establish partnerships locally and regionally in order to enhance the use of the Burden Center as an event, educational and recreational destination
- Establish good working relationships with other University units and with local and regional community organizations, government units, destination marketing organizations, schools, business and economic development organizations, the nursery and landscape business community, and organizations with Botanic Garden-related special interests
- Meet or surpass the projections appearing in this document for endowment, grant, donation, special event and related fundraising

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Appendix

Baton Rouge Wedding/Reception Venues

Venue	Size (ac)	Reception Capacity	Description	Fee	
				Ceremony Only	Reception
LSU Rural Life Museum (current facility)	26	350-400 (Garden)	small church for ceremony, historic gardens used for receptions (A new event/education center with potential use for weddings will be finished January 2010; adjacent to historic gardens)	$500	$1000
Mount Hope Plantation	5	200 (75 inside seating)	historic plantation home; landscaped and wooded grounds, gazebos, fountains, patios	$650	Catering packages nonoptional: $23-40 per person
Lake House Reception Center	8	300	event center; landscaped grounds, gazebos, fountains, lake	Catering packages nonoptional: $23-40 per person	
White Oak Plantation	22	400	historic plantation home; landscaped grounds and pond	Catering packages nonoptional: $28-50 per person in addition to $1,000 rental ($500 each additional hr, 18% gratuity)	
The Gatehouse	2	150	Weddings, receptions, parties; indoor ballroom, landscaped grounds; all services provided	Catering packages nonoptional: $36-29 (50-125+ guests, price decreases as guest # increases)	
Magnolia Mound Plantation	16	250	historical plantation home; hosts educational programs, workshops, and other special events	The Hart House: $350 ($50 each additional hr), The Barn: $600 ($100 each additional hr), Gazebo: $100 (one hr, $50 each additional hr) Entire Facility (Barn, Hart House, Gazebo, Common Grounds): $1,275 ($100 each additional hr)	
Desert Plantation	1,000 (10)	350	B&B, holds weddings and receptions, outdoor alter, central hall available for bad weather	$2,650 (up to 8 hours, includes $200 kitchen fee, $50 set up fee)	Catering packages nonoptional: $19+ per person

Carriage House	16	300	private estate; outdoor alter and gazebo, covered patio	Catering/bridal packages nonoptional: $25-33 per person with minimum of 50 guests charge (includes DJ, Hostess, Coordinator, etc.)	
Nottoway Plantation (White Castle, LA)	21	500 (300 inside)	historic plantation home; landscaped grounds for outdoor, ballroom for indoor	$7 per person ($500 minimum)	Catering/bridal package nonoptional: $90+ per person (includes premium bar)
Forrest Grove Plantation	4	400	plantation facility, indoor hall, covered patio, landscaped grounds	Catering packages nonoptional: $28-36 per person in addition to $750, $500 each additional hr, $4 chair fee per person	
Oak Lodge Reception Center	13,000 sq. ft.	500	event center, indoor halls/event rooms and outdoor sites;	Catering packages nonoptional: $35-45 per person (25 guest minimum charge) in addition to $750 ($550 each additional hr)	
3 Steps Special Events	5,000 sq. ft.	200	rental hall, provide your own catering	Friday Night: $800, Saturday: $1200	
Stage 1	7,500 sq. ft.	500 (350 seating)	Wedding and reception hall; large ballroom, bridal/groom rooms, kitchen	Catering/bridal packages nonoptional: $32-$34 per person (includes hostess and coordinator) in addition to $500 for ceremony and 17% service fee	
Hilltop Arboretum	14	150	owned by LSU; used for educational purposes and public enjoyment; wooded landscapes with wildflower gardens	$450 (5 hr min, includes 1 hr set up, 1 hr take down, $75 each additional hr.) or $90 per hour (3 hr. min)	
Hemingbough	245	600 (whole facility)	wedding/receptions, corporate events, concerts; numerous rooms/halls, Amphitheater, landscaped grounds and lake	Catering packages nonoptional: $29.50+ in addition to $15 per person (50 person minimum)	

Source: Dean Runyan Associates

Note: All facilities have 3 hour rental minimum, unless stated otherwise

Apart from water, soft drinks, tea and coffee, catering package prices do not include alcoholic beverages or others (an additional $10-$15 per person)

All catering packages have a 50 guest minimum charge, unless stated otherwise