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The 2007 Campus Plan Update builds upon the planning initiatives established in the 2002 Campus Master Plan to inform and guide the evolution of the Auburn University campus in the coming years. The 2002 Master Plan marked a shift in the thinking at Auburn University; toward a planning culture that has transformed the campus over the past five years.

Many of the initiatives expressed in the 2002 Plan have been realized including: the pedestrianization of the campus core, the prioritization of infill development and a compact land use pattern, qualifying the relationship between the built environment and natural systems of the campus, and identification and valuation of a campus-wide open space system.

The 2007 Campus Plan Update articulates more concisely, the principles of sustainable design and resource stewardship that will assist the University to create a stronger, more vibrant community, reduce energy consumption, provide alternative transportation options, preserve water resources and habitats, more efficiently utilize land resources, and support the programmatic improvements required for a vibrant and dynamic institution. The goals and objectives of the 2007 Campus Plan Update address the facilities needs of a modern University, build upon the Land-Grant Heritage of the institution, steward the vision of the Auburn campus as the “Loveliest Village”, and robustly integrate the tenants of sustainability.
FOUR STRATEGIC OPPORTUNITIES

The 2007 Campus Plan Update is based on four strategic opportunities, which encompass Auburn’s vision for carrying the character and heritage of the University forward, provide the appropriate facilities to support the strategic and academic plans of the institution, and address sustainability. The four strategic opportunities of the 2007 Update are as follows:

1) Preserving the Land Grant Legacy –

The 2007 Plan Update addresses the entirety of the contiguous campus holdings including agricultural and forested land, and the academic core in a greater detail. It clearly defines the ways in which the tributary stream systems, woodlands and agricultural lands beyond the historic core can function both as an environmental reserve and as the natural connective tissue that ties the entire campus together. Defining the areas as a reserve ensures that the diverse natural systems within the campus boundaries remain as a lasting functional amenity and educational and research asset for the University. It ensures that the natural systems will function in an ecologically sustainable way, and enables Auburn to become a living public demonstration of sound practices in the management and conservation of natural resources.

The natural and agricultural areas are flanked by the principle built-up areas of the campus – the historic academic core and the residential areas north of Lem Morrison and east of Donahue; the complex of recreation, athletic and residential uses north of West Samford and west of Donahue; the University Service Area off West Samford extension; the College of Veterinary Medicine on Wire Road west of Shug Jordan Parkway; and the Research Park that will eventually occupy the south campus area. The “connective” function of the natural and agricultural areas will be realized through the restoration of the stream tributaries that feed Parkerson Mill Creek, the main stream corridor of the campus. A system of trails through the natural areas will link the built-up areas. The upstream reaches of Parkerson Mill Creek, with their edges restored by natural vegetation, will blend into the more formal open spaces in the academic core and the other built-up areas.

What makes this opportunity unique at Auburn is that there is an extensive and contiguous array of natural and agricultural lands that are still intact. Such land resources at many of America’s Land-Grant universities have been lost to campus development, whereas Auburn still possesses a diverse unbuilt landscape that can function not only as a public and campus amenity, but as a living field laboratory for agricultural and ecological learning and research in close proximity to formal instruction facilities.
2) Maintaining a Constellation of “Villages” -

Complementary to the natural preserve discussion above, the Plan envisions the built-up areas of the campus as a series of villages, each functionally self-contained, but also well connected by Auburn’s transportation and natural systems networks. The “village” analogy reflects, in part, the value that Auburn places on its namesake tradition as the “Loveliest Village.” As an element of the physical plan, the village analogy emphasizes the important goal of maintaining compact areas of development that can be both functionally efficient and conducive to the sense of community that is so valued by the Auburn community. By containing major areas of development in defined village districts, infrastructure costs can be contained, transportation demand can be reduced, functional relationships between uses in each village can
be strengthened, and the climate for interaction among the inhabitants can be vastly improved. In addition, and equally as important, Auburn’s unique natural and agricultural domain is spared from ad hoc campus sprawl. To that end, the Plan Update defines the historic academic core and the outlying villages by means of growth boundaries. The boundaries are established based on current land use patterns, and the extent and capacity of existing infrastructure.

The 2007 Update reinforces the concept of contained village districts by calculating the long-range development capacities in the districts capable of accommodating the University’s likely growth needs for the next two generations. The determination of development capacity takes into account the building density, open space quality, circulation and parking needs, and the architectural and landscape character appropriate for each area. Thus, the future growth capacity of the historic academic core is guided by the established “collegiate” scale and character of that area. Whereas areas with large-scale research or sports structures allow for extensive “footprint” areas to ensure future capacity.

3) The Academic Core: Preserving Character and Community –

The 2007 Plan Update amplifies the goals of the 2002 Plan as they relate to the character, quality, and vitality of the core academic campus. The 2002 Plan established a unifying system of open spaces, campus pedestrian corridors, and vehicle circulation routes to make the core campus a more coherent, walkable environment. That system was also meant to provide a predictable framework in which to locate future buildings in the most effective way. As noted, the University has adopted that system to good effect. The 2007 Update provides a more refined design representation of how campus open spaces and buildings “envelopes” can be laid out in conjunction with one another to maintain a unified core campus in the future. In this refinement, the Plan illustrates how Auburn’s character and image can be adapted to the growing and changing academic, residential, and social needs of the University. The plan for the core area seeks to make the campus a more welcoming civic place for the larger Auburn community. This will be achieved by improving pedestrian connections with the residential and commercial areas in the city north of Magnolia and east of College; by making vehicle access and parking for visitors’ venues on campus more apparent and convenient; and by locating public event venues and functions so as to draw the larger community into the life of the campus.

The plan for the academic core builds on successful implementation measures that have occurred since 2002. These include the “pedestrianization” initiative that resulted in street closures eliminating or reducing traffic interference in the walking environment; the removal of parking on the interior of the campus, coupled with a well-used bus shuttle system accessing peripheral parking areas; the siting of the new Student Center in the heart of the campus together with a new “Stadium Green” that
gives Auburn a central iconic open space for the first time after several decades of core area growth; and the development of the West Campus freshman residence halls that bring new residential life closer to the heart of the campus. The 2007 Update gives more detailed expression to campus landscape design delineating the future building edges and envelopes that will frame and animate the landscape open space system.

4) Adopting an Ethic of Sustainability –
An overarching goal of the 2007 Plan Update is to help the University move towards a model of sustainability. The land development and preservation patterns embodied in the Plan are intended to create a more sustainable campus environment by limiting sprawl, utilizing existing infrastructure and utilities more efficiently, and fostering a healthy and enjoyable walking environment. The protection and restoration of natural systems, the geographic containment of development to limit utility runs, and clustering related uses to reduce vehicle demand are sound, sustainable land use practices. The Plan Update addresses the mitigation of energy demand, by making recommendations on design of building shape and orientation, introduction of abundant natural shading, and discouraging the use of heat absorbing and radiating surfaces. The Plan also recommends state-of-the-art methods of “green” design that are being practiced throughout the U.S. in greater frequency. The reduction in impervious ground surfaces is a key aspect of the Plan Update. This promotes the natural retention of stormwater and the mitigation of flood conditions. The recommended use of indigenous landscape materials will restore natural habitat and reduce landscape maintenance and water consumption that is attendant to the use of more exotic plants.

For Auburn University, the goal to create a more sustainable campus has two critical facets. One is helping to make the campus a more economical and energy efficient operation over the long-term; a factor that must be considered in the uncertain fiscal and energy climate of the new century. Second, sustainability befits the University’s public Land Grant mandate to be at the leading edge in learning, research, and demonstration on environmental matters that are critical to the future of Alabama and the world.

GOALS OF THE 2007 CAMPUS PLAN UPDATE

The goals set forth by the 2007 Campus Plan Update fall into five categories which reinforce the tenants of sustainable design. The five categories are:

· natural systems and habitat;
· water resources;
· energy and atmosphere;
· integrated transportation; and,
· community.
Specific physical design recommendations and suggested projects expressed in the 2007 Update serve to provide for the facilities needs of the institution and achieve goals that address one of these five areas.

**DESIGN RECOMMENDATIONS OF THE 2007 CAMPUS PLAN UPDATE**

The design recommendations of the 2007 Campus Plan Update refine and advance the concepts and directives of the 2002 Plan. The following summarize the 2007 Update recommendations:

**The Village Concept**
The village-like qualities of the existing campus, including the scale, pattern, and mix of activities should serve as a guide for future densification of the core and preservation of the periphery. The village concept is reinforced in the 2007 Plan Update in order to concentrate new facilities in the established developed areas of the campus.

**Compact Land Use Pattern**
A compact land use pattern is be emphasized so as to reinforce the pedestrian qualities of the campus; maintain operational and infrastructure efficiencies; preserve land capacity for future needs and enhance campus vitality by placing a variety of activities in close proximity to one another.

**Environment**
The relationship between the formal and built environment of the campus core and the natural ecosystems of the periphery is preserved and strengthened to enhance the overall quality of the campus and to reestablish connections to Auburn’s origins as a land grant institution.

**Pedestrianization**
Auburn’s historic character as a walking campus is restored; emphasis is given to improving pedestrian circulation and the quality of the pedestrian experience, safety, accessibility, and convenience. This is supported by the designation of a pedestrian priority zone and several traffic calming interventions to limit pedestrian/vehicle conflicts.

**Landscape**
The quality and character of the campus landscape is enhanced and extended from the core into the periphery by means of a well-defined open space framework that links passive open spaces, stream corridors, and active, maintained landscapes. In addition, the landscape within the core campus is augmented to provide shade throughout the core to address human comfort and promote increased pedestrian usage, as well as reducing solar heat gain in buildings.
Circulation and Parking –

Parking resources are managed on a campus-wide basis to ensure that the automobile does not dominate the core. Vehicular circulation patterns, including service vehicles, are managed such that they do not introduce excessive traffic into the campus academic core. The continued success of the transit system will further mitigate the demand for parking.

Architectural Design –

The existing human scale of the campus academic core, building forms, massing, and building-to-site ratios serve as a guide for future buildings and the expansion of the campus while placing a greater emphasis on energy efficiency and accessibility issues.
**Community Interface**

The Plan Update maintains and reinforces the existing compatible land use relationships with the surrounding business and residential districts of Auburn, in order to reinforce the village-like qualities of the campus environment and enhance relations with the local community.

**Infrastructure**

Infrastructure is planned for efficiency and the avoidance of unnecessary expansions beyond the proposed growth boundaries, ensuring that appropriately located sites are reserved for future requirements.

**PRIMARY PROPOSED FACILITIES DEVELOPMENT AND CAMPUS IMPROVEMENTS**

The following projects are identified as priorities for facilities development in the 2007 Plan Update. Each project is sited and planned for implementation in keeping with the goals and design recommendations established for the Update.

**Student Center**

At this writing, the University has initiated construction of a new Student Center to the south of Haley Center. The new facility is intended to frame the Proposed Stadium Green, which is intended to become the central open space of the campus.

**Undergraduate Housing**

The stated goal of the University is to house 80 percent of the entering class. To accommodate the majority the freshman class, in addition to sorority women, and returning students, 1,600 new beds are required.

In response, the 2007 Campus Plan Update proposes new residential development along the underutilized western fringe of the core campus. The “West Village” housing district is sited just beyond Donahue, reinforcing the main tenets of the 2007 Update. It facilitates pedestrian connectivity within the campus core, it is easily accessible to extracurricular activities and athletic facilities, it creates a terminus for the newly pedestrianized West Thach Walk, provides access to the adjacent Auburn community, and it utilizes a previously developed area.

The “West Village” housing development will include 1,600 beds, a new dining commons, and a network of landscapes quads and plazas consistent with the pattern of open space in the existing core campus.
New Basketball Arena

A new basketball arena is sited in the west campus area. This location reinforces the concept of prioritizing in-fill development, as well as creating pedestrian accessible venues for campus residents. The arena defines the southern edge of the central plaza of the West Village in conjunction with the West Dining Commons to the primary public open space of the West Village.

Student Recreation Center

The proposed Student Recreation Center is sited adjacent to the existing Student Activities Center and the Morgan Aquatics Center, again to prioritize the efficient use of existing built areas and facilities. It is sited along the major north/south pedestrian spine connecting the West Village with the intramural fields.

Office of Information Technology

The Office of Information Technology (OIT) is planning a new 40,000 gsf facility in the South Quad.

Campus Landscape Improvements

Comprehensive improvements to the campus landscape include aesthetic enhancements, reconnecting the open space fabric, and landscape development measures to support the sustainability goals of the institution. Projects include:

- Stadium Green - a new public open space adjacent to the stadium and Student Center.

- Campus Core Shade Initiative - augment landscape and tree plantings in the campus core to provide shade for pedestrian walkways and buildings, to decrease heat gain.

- Graves Amphitheater Park Expansion - extend the Park northward to connect with the Stadium Green

- Parkerson Mill Creek Linear Park - Create a park corridor along the creek connecting the Stadium Green with the intramural fields, and beyond to the agricultural lands of the campus.

College of Veterinary Medicine

The College of Veterinary Medicine (CVM) Resource Team identified several major needs to accommodate anticipated 20 percent growth in the next 5-7 years; including growth among graduate students. Specific facility requirements include: Expansion of Hoerlein Hall (Small Animal Hospital) and a new research building.
Analysis

The recommendations of the 2007 Update are based on a comprehensive analysis of the campus and the ecological impact of the institution. The objectives of the analysis include:

- Quantify the resource consumption patterns of the University and associated environmental impact considerations
- Identify principles for operating the campus in a more efficient manner
- Reduce the overall impact of the University on the environment
- Identify opportunities for realigning the land grant mission of the University with the critical environmental issues of the 21st century
- Identify ways to utilize the campus as a “lab” for studying and researching issues of sustainability

The Analysis provides an overview of Auburn’s current environmental resources, and identifies adjustments in planning practice that could be made to assist the institution shift toward resource stewardship and sustainability. In addition the sustainability goals of the University focus on making Auburn a better place to live, work, and study. The importance placed on the stewardship of resources is two-fold:

1) It provides for long-term economic benefits and potential cost savings;

2) It provides ecological benefits that preserve the campus environment for future generations.

The 2007 Campus Plan Update builds upon the ideas first introduced in the 2002 Master Plan, and the traction that the University has gained in implementing the concepts and directives of that planning effort. At the same time the 2007 Update expands upon the shift in thinking that began with the 2002 Plan to define a truly visionary outlook for the future evolution of the Auburn Campus; incorporating the tenants of sustainability and a comprehensive vision for Land-Grant research University in the 21st century.
1. Student Center
2. Undergraduate Housing
3. Basketball Arena
4. Office of Informational Technology (OIT)
5. Stadium Green

Proposed Facilities Development and Campus Improvements
The 2007 Campus Plan Update builds on the principles established in the 2002 Campus Plan, which were to direct university growth and change in such a way as to make the campus more cohesive, efficiently organized, and supportive to a pedestrian-scaled learning community. Many of those principles have been put into practice during the last five years, transforming the character of the campus in significant ways. Among the great strides that the University has made in acting upon the principles of the 2002 Plan are an ambitious “pedestrianization” program consisting of street closures, landscape enhancements, transit system expansion, and removal of surface parking from key areas of the historic core. New projects have been sited to enhance academic, social and residential interaction, as well as define and animate the open spaces around them. Institutional initiatives, such as the Auburn University Research Park, will become an important regional economic resource and will create an impressive new gateway to the University for visitors approaching the campus on South College Avenue from Interstate 85.

The 2007 Campus Plan Update represents both a refinement and an expansion of the ideas embodied in the 2002 Plan. It addresses ideas of campus character and spatial organization in greater detail, based on the changes that have occurred since 2002. Moreover, the 2007 Plan Update encompasses an expanded vision for the comprehensive stewardship of the entire 1,800 acre Auburn Campus including both development and preservation. It acknowledges that the natural environment and the agricultural lands are as important to Auburn’s character and image as are its buildings.
BUILDING ON AUBURN’S LAND-GRANT HERITAGE

The overarching theme of the 2007 Plan Update is that the campus itself will be a working demonstration laboratory for a better, more sustainable 21st century campus. This is an ambitious and achievable planning vision drawn from Auburn’s historic role as Alabama’s premier Land-Grant University. The mission of the 1862 Morrill Land-Grant Act was to make US public higher education an instrument of social and economic betterment in all regions of the country. Auburn University has the physical and institutional attributes to make its campus a model for demonstrating how the Land-Grant Mission can serve today’s changing higher education needs in Alabama, in the South, and in the US.

Those attributes are:

- The campus consists of a diverse array of natural, agricultural and built areas that can be organized to complement and reinforce one another; creating a healthier, more sustainable environment for human activity;

- The historic heart of the campus can provide a vibrant, inviting, pedestrian scale setting to enrich the total learning experience of Auburn’s students; and

- Auburn’s commitment to the pursuit of new knowledge and research to serve Alabama’s evolving needs can be effectively accommodated within the versatile character of the campus.

The elements of sustainability, community, and academic excellence are fully embodied in the 2007 Update. Sustainability is not only an educational imperative for the 21st century; it is also a practical necessity for the economic and environmental stewardship of Auburn’s facilities and grounds. The sense of community, always a hallmark of campus life at Auburn, is reinforced in the Plan by bringing academic, residential, social, recreational and athletic functions together in a more unified way. Academic excellence is fostered by strengthening the connections and proximities between academic discipline areas, reflecting cross-disciplinary study and research trends driving intellectual discovery today.
FOUR STRATEGIC OPPORTUNITIES EMBODIED IN THE 2007 CAMPUS MASTER PLAN

The 2007 Campus Master Plan advances Auburn’s planning mission by adapting four strategic opportunities that reflect the unique characteristics of the Auburn environment. Although each opportunity can be evaluated on its own merit, the strength of the Plan as a whole is based on the complementary and interdependent nature of the four strategic opportunities,

They are as follows:

Preserving the Land Grant Legacy – The 2007 Campus Master Plan addresses the entirety of the contiguous campus holdings including agricultural and forested
land, and the academic core in a greater detail. It clearly defines the ways in which the
tributary stream systems, woodlands and agricultural lands beyond the historic core
can function both as an environmental reserve and as the natural connective tissue
that ties the entire campus together. Defining the areas as a reserve ensures that the
diverse natural systems within the campus boundaries remain as a lasting functional
amenity and educational and research asset for the University. It ensures that the
natural systems will function in an ecologically sustainable way, and enables Auburn
to become a living public demonstration of sound practices in the management and
conservation of natural resources.

The natural and agricultural areas are flanked by the principal built-up areas of
the campus – the historic academic core and the residential areas north of Lem
Morrison and east of Donahue; the complex of recreation, athletic and residential
uses north of West Samford and west of Donahue; the University Service Area off
West Samford extension; the College of Veterinary Medicine on the Wire Road west
of Shug Jordan Parkway; and the Research Park that will eventually occupy the south
campus area, along Camp Auburn Road. The “connective” function of the natural and
agricultural areas will be realized through the restoration of the stream tributaries
that feed Parkerson Mill Creek, the main stream corridor of the campus. A system of
trails through the natural areas will link the built-up areas. The upstream reaches of
Parkerson Mill Creek, with their edges restored by natural vegetation, will blend into the
more formal open spaces in the academic core and the other built-up areas.

What makes this opportunity unique at Auburn is that there is an extensive and
contiguous array of natural and agricultural lands that are still intact. Such land
resources at many of America’s Land-Grant universities have been lost to campus
development, whereas Auburn still possesses a diverse unbuilt landscape that can
function not only as a public and campus amenity, but as a living field laboratory
for agricultural and ecological learning and research in close proximity to formal
instruction facilities.

Maintaining a Constellation of “Villages” – Complementary to the natural
preserve discussion above, the Plan envisions the built-up areas of the university as
a series of campus villages, each functionally self-contained, but also well connected
by Auburn’s transportation network and the natural systems network. The “village”
analogy reflects, in part, the value that Auburn places on its namesake tradition
as the “Loveliest Village.” As an element of the physical plan, the village analogy
emphasizes the important goal of maintaining compact areas of development that
can be both functionally efficient and conducive to the sense of community that is
so valued by Auburn. By containing major areas of development in defined village
districts, infrastructure costs can be contained, transportation demand can be reduced,
functional relationships between uses in each village can be strengthened, and the
climate for interaction among the inhabitants can be vastly improved. In addition and equally as important, Auburn’s unique natural and agricultural domain is spared from ad hoc campus sprawl. To that end, the Plan Update defines the historic academic core and the outlying villages by means of growth boundaries. The boundaries are established based on current land use patterns, and the extent and capacity of existing infrastructure.

The 2007 Update reinforces the concept of contained village districts by calculating the long-range development capacities in the districts capable of accommodating the University’s likely growth needs for the next two generations. The determination of development capacity takes into account the building density, open space quality, circulation and parking needs, and the architectural and landscape character
appropriate for each area. Thus, the future growth capacity of the historic academic core is guided by the established “collegiate” scale and character of that area. Whereas areas with large-scale research or sports structures allow for extensive “footprint” areas to ensure future capacity.

The Academic Core: Preserving Character and Community – Preserving Character and Community – The 2007 Plan Update amplifies the goals of the 2002 Plan as they relate to the character, quality, and vitality of the core academic campus. The 2002 Plan established a unifying system of open spaces, campus pedestrian corridors, and vehicle circulation routes to make the core campus a more coherent, walkable environment. That system was also meant to provide a predictable framework in which to locate future buildings in the most effective way. As noted before, the University has adopted that system to good effect. The 2007 Update provides a more refined design representation of how campus open spaces and buildings “envelopes” can be laid out in conjunction with another to maintain a unified core campus in the future. In this refinement, the Plan illustrates how Auburn’s character and image can be adapted to the growing and changing academic, residential, and social needs of the University. The plan for the core area seeks to make the campus a more welcoming civic place for the larger Auburn community. This will be done by improving pedestrian connections with the residential and commercial areas in the city north of Magnolia and east of College; by making vehicle access and parking for visitors’ venues on campus more apparent and convenient; and by locating public event venues and functions so as to draw the larger community into the life of its public university.

The plan for the academic core builds on successful implementation measures that have occurred since 2002. These include the “pedestrianization” initiative that resulted in street closures eliminating or reducing traffic interference in the walking environment; the removal of parking on the interior of the campus, coupled with a well-used bus shuttle system accessing peripheral parking areas; the siting of the new Student Center in the heart of the campus together with a new “Stadium Green” that gives Auburn a central iconic open space for the first time after several decades of core area growth; and the development of the West Campus freshman residence halls that bring new residential life closer to the heart of the campus. The 2007 Update gives more detailed expression to campus landscape design delineating of the future building edges and envelopes that will frame and animate the landscape open space system.
Adopting an Ethic of Sustainability – An overarching goal of the 2007 Plan Update is to help the University move towards becoming a 21st century model of sustainability. The land development and preservation patterns embodied in the discussions above are intended to create a more sustainable campus environment by limiting sprawl, utilizing existing infrastructure and utilities more efficiently, and fostering a healthy and enjoyable walking environment. The protection and restoration of natural systems, the geographic containment of development to limit utility runs, and clustering related uses to reduce vehicle demand are sound, sustainable land use practices. The Plan Update also addresses the mitigation of energy demand, by making recommendations on design of building shape and orientation, introduction of abundant natural shading, and discouraging the use of heat absorbing and radiating surfaces. The Plan also recommends state-of-the-art methods of “green” design that are being practiced throughout the U.S. in greater frequency. The reduction in impervious ground surfaces is a key aspect of the Plan Update. This promotes the natural retention of stormwater and the mitigation of flood conditions. The recommended use of indigenous landscape materials will restore natural habitat and reduce landscape maintenance and water consumption that is attendant to the use of more exotic plans.

For Auburn University, the goal to create a more sustainable campus has two critical facets. One is helping to make the campus a more economical and energy efficient operation over the long-term; a factor that must be considered in the uncertain fiscal and energy climate of the new century. Second, sustainability befits the University’s public Land Grant mandate to be at the leading edge in learning, research, and demonstration on environmental matters that are critical to the future of Alabama and the world.
The 2007 Master Plan Update seeks to redefine the 21st century land grant campus as one where land and built resources are utilized more prudently, where the environmental and economic costs of development sprawl are considered, and where natural systems are respected. It seeks to transform the campus as a dynamic demonstration of a land grant ethic placing high value on natural systems, agricultural lands, forests, and aesthetically important open spaces. It acknowledges that the agricultural and forested lands of the campus are as important to the image, tradition and history of the campus as the historic buildings.

Over its one hundred plus year history, Auburn’s land use pattern has gradually spread from the highest points across the vast 1,800 acre land area that comprises the main campus. It is imperative to Auburn’s mission as well as its image and character to maintain the agricultural, pasture land, and the significant forested areas. These areas form a natural armature that complements the developed parts of the campus; the academic core and satellite academic areas, such as the College of Veterinary Medicine and the newly-planned Research Park. The open and natural lands of the Auburn campus remain vulnerable if it is presumed that future development will occur mainly by lateral expansion.

A land development pattern based on stewardship is one that emphasizes infill and redevelopment of established built areas of the campus, opting for growth only in the most selective and strategic areas to capitalize on existing infrastructure. Further, it is optimized by preserving and reclaiming the open space systems that connect the outlying lands with the built areas of the campus, allowing stream tributaries, wooded areas and open spaces in outlying areas to blend back into the more formal, active spaces in the core and satellite districts.
DEVELOPMENT CHRONOLOGY OF THE AUBURN CAMPUS
Planning Background

Development Chronology of the Auburn Campus
It is the goal of the 2007 Campus Plan Update to redirect the attitude and policies of land development toward an ethic of stewardship and sustainability. By embracing sustainable design principles, the 2007 Update focuses on best management practices in the following areas:

- Stormwater management
- Forestry
- Urban forestry and landscape design
- Human-powered transport and compact, pedestrian-oriented development
- Sustainable building practices
- Energy and atmosphere

2002 CAMPUS MASTER PLAN

The 2002 Campus Master Plan serves as the basis for the 2007 Campus Plan Update. Because of new circumstances, and needs for new programs within the University, the 2007 Update identifies new opportunities as well as refines existing opportunities through the lens of sustainability.

Most of the goals that guided the development of the 2002 Plan remain valid for the Update and have been modified as appropriate to guide the 2007 planning process:

1. Village Concept – The village-like qualities of the existing campus, including the scale, pattern, and mix of activities should serve as a guide for future densification of the core and preservation of the periphery. The village concept is reinforced in the 2007 Plan Update in order to concentrate new facilities in the established development areas of the campus.

3. Compact Land Use Pattern – A compact land use pattern should be emphasized so as to reinforce the pedestrian qualities of the campus; maintain operational and infrastructure efficiencies; preserve land capacity for future needs and enhance campus vitality by placing a variety of activities in close proximity to one another.
4. Environment – The relationship between the formal and built environment of the campus core and the natural ecosystems of the periphery should be preserved and strengthened to enhance the overall quality of the campus and to reestablish connections to the University’s origins as a land grant institution.

5. Pedestrianization – Auburn’s historic character as a walking campus should be restored; emphasis should be given to improving pedestrian circulation and the quality of the pedestrian experience, safety, accessibility, and convenience.

6. Landscape – The quality and character of the campus core landscape should be enhanced and extended into the periphery by means of a well-defined framework of open spaces that link passive open spaces, stream corridors, and active, maintained landscapes.

7. Circulation and Parking – The campus parking resources should be managed on a campus-wide basis to ensure that the automobile does not dominate the campus core. Vehicular circulation patterns, including service vehicles, should be managed such that they do not introduce excessive traffic into the campus academic core.

8. Architectural Design – The existing human scale of the campus academic core, building forms, massing, and building-to-site ratios should form guidelines for future buildings and the expansion of the campus while addressing energy efficiency and accessibility issues.

9. Community Interface – The Campus Master Plan Update should maintain and reinforce the existing compatible land use relationships with the surrounding business and residential districts of Auburn, in order to reinforce the village-like qualities of the campus environment and enhance relations with the local community.

10. Infrastructure – Campus infrastructure should be designed for efficiency and should avoid unnecessary expansions beyond the campus core, ensuring that appropriately located sites are reserved for future requirements.

The above goals address many aspects of sustainability that have been carried through the current planning efforts. The 2007 Campus Plan Update builds upon these goals with more detailed analysis, recommendations, and initiatives outlined in the ‘Sustainability and the Plan’ section to follow in this report.
Implementation of the 2002 Plan

Since the adoption of the 2002 Plan, Auburn University has made great strides in implementing several of the program elements. Major achievements are shown on the next page.

These projects have helped to achieve the goals identified in 2002 and have advanced the vision of the campus. In addition to the above, the University has also carried out a siting and design process for a new Student Center. At this writing, the facility was under construction south of the Haley Center.

2007 Campus Master Plan Update Program

There are several significant additions to campus planning needs since the 2002 Plan. The University has identified a housing policy that aims to accommodate 80 percent of freshman in on-campus residence halls, and the need for a new student recreation center, a new performing arts center, and possibly a new basketball arena.

2007 Additional Campus Needs (in GSF)

<table>
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<th>Academic Facilities</th>
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<td>Basketball Arena</td>
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<td>Shelby Engineering Center Phase II</td>
<td>145,000</td>
</tr>
<tr>
<td>Math and Physics Building</td>
<td>150,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Support &amp; Auxiliary Facilities</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate Housing (1600 beds)</td>
<td>540,800</td>
</tr>
<tr>
<td>Student Recreation Center</td>
<td>190,000</td>
</tr>
</tbody>
</table>

The following provides more detail on the proposed program elements.

Undergraduate Housing

Currently, Auburn houses approximately 2,875 of its students in on-campus residence facilities. Since the 2002 Master Plan, approximately 700 beds were removed as part of on-going improvements, including demolition and replacement of older facilities. The University’s goal is to accommodate approximately 4,000 undergraduates in on-campus housing comprising of the majority the freshman class, in addition to sorority women, and returning students. In order to provide housing for 80 percent of the entering class, Auburn needs to provide space for 1,600 new beds.
Planning background

1. Shelby Center
2. Thach Walk
3. Roosevelt Drive Parking Garage
4. Duncan Drive Extension
5. Science Lab Center
6. Building Science
7. Forestry Building
8. Pharmacy
The 2007 Campus Plan Update maintains established land use patterns and densifies residential needs in the core campus. The new housing community develops the underutilized western fringe of the core campus just beyond Donahue. Termed the “West Village”, this new housing neighborhood occupies a site that reinforces the main tenets of the Plan: it enables pedestrian circulation within the campus core, it is easily accessible to extracurricular activities and athletic facilities, it creates a terminus for the newly pedestrianized West Thach Walk, it is near to the heart of the adjacent Auburn community, and it utilizes a previously developed area.

For housing demands beyond current needs, the site bounded by S. Donahue, Lem Morrison and Duncan Drive (current USDA and horticulture green house site) is reserved in the masterplan.

New Basketball Arena
During the 2007 Planning process, the University raised the possibility of developing a new basketball arena in the near term. The suggested program is approximately 90,000 gsf, to be located as near to the core campus as possible. The 2007 Plan explored sites for the potential facility, while acknowledging that it is possible to better utilize and/or renovate the existing basketball arena.

Student Recreation Center
During the 2002 Master Planning process, the University identified the need for a new student recreation center. This center will include a basketball practice facility, while retaining many of the functions provided by the existing student recreation center.
In the 2007 Update, the facility is located adjacent to the existing Student Activities Center and the Morgan Aquatics Center.

Office of Information Technology
The Office of Information Technology (OIT) is planning a new facility for the central campus in the range of 40,000 gsf.
### Needs of Colleges, Schools and Other Entities

In addition to the program elements noted above, the following needs and demolition proposals remain valid from the 2002 Plan.

<table>
<thead>
<tr>
<th>Athletics</th>
<th>Football Practice Building</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Agriculture</td>
<td>Fisheries Laboratory Building</td>
</tr>
<tr>
<td></td>
<td>Warm Water Aquatic Resources</td>
</tr>
<tr>
<td>College of Business</td>
<td>Addition to Lowder Business Building</td>
</tr>
<tr>
<td>College of Engineering</td>
<td>Aerospace Renovation</td>
</tr>
<tr>
<td></td>
<td>Broun Hall Renovation</td>
</tr>
<tr>
<td></td>
<td>Dunstan Hall Renovation</td>
</tr>
<tr>
<td></td>
<td>Harbert Center Renovation</td>
</tr>
<tr>
<td></td>
<td>Mechanical Engineering Building</td>
</tr>
<tr>
<td></td>
<td>Ramsay Hall Renovation</td>
</tr>
<tr>
<td></td>
<td>Textile Building Renovation</td>
</tr>
<tr>
<td>Facilities Division</td>
<td>Facilities Division / Service Sector Distribution Facility</td>
</tr>
<tr>
<td>College of Liberal Arts</td>
<td>Fine and Performing Arts Center</td>
</tr>
<tr>
<td></td>
<td>Natural History Collection Building</td>
</tr>
<tr>
<td></td>
<td>Social, Behavioral, Communications Building</td>
</tr>
<tr>
<td>School of Nursing</td>
<td>Miller Hall Renovation</td>
</tr>
<tr>
<td>College of Sciences and Mathematics</td>
<td>Biological Sciences Building</td>
</tr>
<tr>
<td>College of Veterinary Medicine</td>
<td>Basic Science Research Building</td>
</tr>
<tr>
<td></td>
<td>Small Animal Hospital /</td>
</tr>
<tr>
<td></td>
<td>Small Animal Radiology Veterinary Teaching Hospital</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Renovations of Major Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td>In addition to the above-proposed facilities, several existing buildings have been identified for renovation over the next five to ten years:</td>
</tr>
<tr>
<td>· Greene Hall (College of Veterinary Medicine)</td>
</tr>
<tr>
<td>· Haley Center</td>
</tr>
<tr>
<td>· Funchess Hall</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Renovation of Old and Historically Important Buildings</th>
</tr>
</thead>
<tbody>
<tr>
<td>A number of historically important buildings have also been identified for renovation including:</td>
</tr>
<tr>
<td>· Samford Hall</td>
</tr>
<tr>
<td>· Mary Martin Hall</td>
</tr>
<tr>
<td>· Langdon Hall</td>
</tr>
<tr>
<td>· Comer Hall</td>
</tr>
<tr>
<td>· Cary Hall</td>
</tr>
<tr>
<td>· Upchurch Hall</td>
</tr>
<tr>
<td>· M.W. Smith Hall</td>
</tr>
<tr>
<td>· Cater Hall</td>
</tr>
</tbody>
</table>

A number of buildings have also been proposed for demolition:

<table>
<thead>
<tr>
<th>Potential Demolition</th>
<th>GSF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allison Laboratory Building</td>
<td>36,860</td>
</tr>
<tr>
<td>Old Physical Plant</td>
<td>24,484</td>
</tr>
<tr>
<td>Dunstan Hall</td>
<td>32,590</td>
</tr>
<tr>
<td>Engineering Shops</td>
<td>52,425</td>
</tr>
<tr>
<td>Food Services Building</td>
<td>20,300</td>
</tr>
<tr>
<td>L-Building</td>
<td>37,045</td>
</tr>
<tr>
<td>Mell Hall</td>
<td>7,810</td>
</tr>
<tr>
<td>Parker Hall</td>
<td>86,680</td>
</tr>
<tr>
<td>Physiology Building</td>
<td>17,385</td>
</tr>
<tr>
<td>Glanton House</td>
<td>2,930</td>
</tr>
<tr>
<td>Human Sciences Annex</td>
<td>4,657</td>
</tr>
<tr>
<td>Beard-Eaves-Memorial Coliseum</td>
<td>356,000</td>
</tr>
</tbody>
</table>

(Source: Associate Provost for Facilities 2002, Updated 2007)
College of Veterinary Medicine
The College of Veterinary Medicine (CVM) Resource Team identified several major needs to accommodate anticipated growth in the upcoming years. CVM estimates growth in the next 5-7 years at a rate of 20 percent, compared to the 5 percent growth that occurred in the last 5 years. Additionally, CVM expects some growth among graduate students as the College undertakes expansion of research facilities. The needs identified at the CVM include: Expansion of Hoerlein Hall (Small Animal Hospital), and Increased capacity for the Basic Sciences/Biosafety Research Building. Please see Chapter 5 for more detail.

Analysis
The 2007 Plan Update is informed by a seven (7) part analysis of the campus which emphasizes sustainability considerations: 1) Land Resources; 2) Natural Systems; 3) Water Resources; 4) Existing facilities; 5) Fossil fuel consumption patterns; 6) Carbon dioxide emissions and sequestration; and 6) Alternative energy opportunities.

The 2007 Update links sustainability with Auburn University’s legacy as a land grant institution and the historical land stewardship role it has played. Sustainability also focuses on making Auburn a better place to live, work, and study. The importance placed on the stewardship of resources is two-fold:

1. It provides for long-term economic benefits and potential cost savings;
2. It provides ecological benefits that preserve the campus environment for future generations.

The objectives of the analysis include:
- Quantify the resource consumption and associated environmental impact considerations
- Identify principles for operating the campus in a more efficient manner
- Reduce the overall impact of the University on the environment
- Identify opportunities for realigning the land grant mission of the University with the critical environmental issues of the 21st century
- Identify ways to utilize the campus as a “lab” for studying and researching issues of sustainability
The analysis establishes the base line conditions for planning and operating the campus in a more sustainable manner and is documented in Appendix A of this report. The analysis records some of the key issues and data that the University will need to consider as it transitions toward a more sustainable future. It records the initial data and information that will need to be addressed more rigorously in subsequent planning and design projects.

The major conclusions drawn from the analysis that guided the planning process for the 2007 Update are as follows:

- Electricity consumption is the main source of the University’s greenhouse emissions. Reducing the environmental impact of University activity will require a program of efficiency and conservation as well as opportunities to purchase green power.

- Transportation related greenhouse gas emissions are significant but are mitigated by the University’s successful transit system. Positive outcomes of the transit system include a reduction in the number of daily vehicle trips, a decrease in parking demand and a reduction of transportation related greenhouse gas emissions. The proposed increase in resident student population will further reduce daily vehicle trips to the campus.

- The forested areas of the campus are estimated to sequester less than one percent of the total carbon dioxide emissions of the University but have aesthetic, habitat and stormwater value.

- Solar energy could be utilized on campus to supplement campus energy needs and reduce greenhouse gas emissions.

- The University consumes close to one million gallons of water each day.

- There is no habitat inventory available for the campus.
Based on the analysis, the following is recommended to assist the University in moving toward a more sustainable campus:

- Focus on efficiency and conservation of energy to reduce fossil fuel dependency, expenditures and the associated carbon dioxide emissions. Identify alternative fuel sources.
- Respond to the climate in landscape and building design
- Rationalize summertime campus use patterns to reduce the cost of operation.
- Use existing space more efficiently and intensely.
- Establish an urban forestry and reforestation strategy for the campus.
- Conserve water through better irrigation practices and the use of more efficient equipment and fixtures in future buildings and building renovations.
- Improve conditions along Parkerson Mill Creek to protect water quality, and habitats
- Maintain a compact land use pattern contained by growth boundaries.
- Focus on alternative modes of transportation with emphasis on human powered movement.
The 2007 Campus Plan Update is intended to support the mission of Auburn while assisting the University move toward a more sustainable vision of campus development.

The 2007 Update focuses on transforming the physical environment and, thus, addresses only one dimension of sustainability. To be a sustainable University, Auburn will need to transform its organizational structure, policies, and curriculum to more meaningfully address the social and economic dimensions of sustainability; a transformation that goes beyond physical master planning.

The 2007 Campus Plan Update addresses five sustainable design goals that have the potential to assist the University in creating a stronger, more vibrant community, reducing energy consumption, providing alternative transportation options, reducing CO₂ and greenhouse gas emissions, preserving water resources, and protecting habitats.
Projects and Initiatives of the 2007 Campus Plan Update are as follows:

- The containment of sprawl
- The priority of the pedestrian environment
- The protection of natural resources
- Use of the best of the old and the best of the new when accommodating new facilities needs; existing buildings are to be better utilized in the core.
- Preservation of the periphery to the greatest extent possible to ensure future success in Agriculture, Poultry Science and Veterinary Medicine.
- Emphasis on the restoration and habitat of Parkerson Mill Creek as a natural armature of the campus
- Emphasis on the “village” concept, identifying very specific and limited areas outside of the designated core that can accommodate additional buildings if necessary. The villages are: the College of Veterinary Medicine, the Research Park, the Service District and the Art Museum.
Sustainable design requires a response to the natural conditions of the Auburn region and considers the relationship between the quality of life at the University, the local climate, topography, soils and resource consumption.

The goals of the 2007 Plan are organized into five (5) key areas of sustainability: Natural Systems, Water Resources, Energy and Atmosphere, Integrated Transportation, and Community

This section of the report discusses the master plan relative to these five key areas. As these areas interrelate, overlaps are noted as appropriate.

**Natural Systems** Preserve the natural systems of the campus in order to protect the likely habitat areas and promote the appreciation of important assets such as the campus forests and waterways.

**Water Resources** Promote a watershed protection approach to water resources, including the reuse and management of stormwater.

**Energy and Atmosphere** Encourage climate-responsive building and site design in combination with a compact development pattern to reduce automobile dependency and the resulting greenhouse gas emissions.

**Integrated Transportation** Provide transportation options in order to reduce transport-related energy consumption and greenhouse gas emissions and promote public health goals by facilitating human powered movement.

**Community** Promote a sense of community within the campus and in the surrounding context to address the social dimension of sustainability.

These goals create a context in which the University can effectively identify projects and initiatives, and implement decision making processes, to move toward their achievement in an efficient, adaptive, and financially responsible way.
Sustainability and the Master Plan

Fundamental to the Master Plan is the goal of enhancing and preserving the natural systems of the campus. The built environment of the campus core defines the rich student experience at Auburn, defines a memorable character and image for the institution, and serves as the setting for many of the traditions and cultural activities of the university. Equally, the rural periphery and natural systems beyond the core distinguish and define the Auburn campus. The Plan is based on the premise that the natural systems, including the wooded areas and agricultural lands of the campus, have value beyond their aesthetic qualities and mission-related purposes. These areas have value in terms of the contributions they make to stormwater management, water

NATURAL ENVIRONMENT / HABITAT

Fundamental to the Master Plan is the goal of enhancing and preserving the natural systems of the campus. The built environment of the campus core defines the rich student experience at Auburn, defines a memorable character and image for the institution, and serves as the setting for many of the traditions and cultural activities of the university. Equally, the rural periphery and natural systems beyond the core distinguish and define the Auburn campus. The Plan is based on the premise that the natural systems, including the wooded areas and agricultural lands of the campus, have value beyond their aesthetic qualities and mission-related purposes. These areas have value in terms of the contributions they make to stormwater management, water
quality, air quality, and carbon dioxide sequestration. The natural systems and rural periphery of the campus are protected from ad hoc development in the 2007 Update by means of a Campus Growth Boundary, within which future growth is encouraged as a way to utilize existing infrastructure and utilities more efficiently, as a way to limit sprawl, and as a way to further the aims of creating a pedestrian environment.

Acknowledging and addressing the natural systems of the campus, allows for links between the human realm and the natural ecosystems. The 2007 Campus Plan Update achieves this through the concept of “working landscapes” in both terrestrial and aquatic habitats; that is, functional landscapes which link the natural systems of the campus with the structured landscapes of the core. These working landscapes are intended to be areas where native plants are introduced, stormwater management strategies are implemented, and soils are protected.

Landscape interventions are utilized in the 2007 Update as a means to protect Parkerson Mill Creek and its tributaries, to protect wetlands, to expand and enhance existing wooded areas, to protect the likely habitat areas, and to provide physical links between the natural systems and the existing landscapes of the campus core.

The result is a Landscape Framework which links the natural landscape of the campus to the cultural landscapes (the human landscapes). The Framework consists of:

- the existing and enhanced natural system and stream corridors of the campus such as Parkerson Mill Creek,
- the existing wooded areas including the Campus Forest, the area west of the new Forestry Building and the arboretum,
- a series of landscape linkages along existing and proposed pedestrian routes and roadways
- a series of new quadrangles and park spaces within the Campus Growth Boundary.

In order to protect natural systems within and adjacent to the built campus environment, wooded areas are maintained in the 2007 Update for stormwater benefits, water quality, soil stabilization, air quality, carbon sequestration, and shade. The Campus Forest, located south of Lem Morrison Drive, is maintained and expanded in the 2007 Update as a natural resource and for future research opportunities in biology, forestry, and wildlife studies, among other disciplines. Duncan Drive Forest, the wooded area to the west of the College of Forestry and Wildlife Sciences is also maintained in the Plan as an important resource for the campus, and for the activities of the adjacent College.
Open Space & Woodland

Existing Natural and man-made landscapes

Landscape Intervention
3 SUSTAINABILITY AND THE MASTER PLAN

Landscape Structure
Wooded areas along the Parkerson Mill Creek corridor and its tributaries are maintained, expanded and enhanced in conjunction with a stream protection strategy. These wooded corridors are intended to contribute to the water quality and erosion control objectives of the 2007 Update.

In addition to the existing wooded areas of the campus, a reforestation and urban forestry strategy is recommended to provide shade trees in the pedestrian core of the campus. Trees, along with trellises and other plant material, are recommended to shade buildings and large paved surfaces, and in doing so, address human comfort and reduce the heat island effect.

The specific recommendations of the Plan with regard to the natural environmental systems of the campus include:

- Establishing forested connections that link with existing wooded areas on the periphery of the campus to those in the established core.
- Reducing the heat island effect through strategic tree planting and an urban forestry program, especially within the core.
- Improving the Parkerson Mill Creek core through stream restoration, reduction of impervious surface area, and establishing stream protection buffers in the agricultural areas of the campus.
- Supporting ongoing studies by the University to daylight Parkerson Mill Creek within the core of the campus where it has been placed in a culvert.
- Removing Biggio Drive to restore the natural flow of an important section of Parkerson Mill Creek and to establish new pedestrian and bikeway connections between the core campus and the recreational lands on the periphery of the campus.
- Protecting likely habitat area by limiting future building construction outside the Campus Growth Boundary (note: no information is available on the habitat areas of the campus).
SUSTAINABILITY AND THE MASTER PLAN

A key goal of the Campus Master Plan is to protect and highlight the existing natural water features with the aim of providing campus amenities, promoting research opportunities and as a way of engendering a culture of conservation. Parkerson Mill Creek, the primary waterway, serves to link the core academic uses within the Campus Growth Boundary to the peripheral recreational uses and beyond to the agricultural lands further to the south. The 2007 Update supports current studies under consideration by the University to daylight portions of the creek within the Campus Growth Boundary in order to recapture this “lost” natural resource, foster more effective, natural stormwater management and to create an amenity for the campus community.

WATER RESOURCES

A key goal of the Campus Master Plan is to protect and highlight the existing natural water features with the aim of providing campus amenities, promoting research opportunities and as a way of engendering a culture of conservation. Parkerson Mill Creek, the primary waterway, serves to link the core academic uses within the Campus Growth Boundary to the peripheral recreational uses and beyond to the agricultural lands further to the south. The 2007 Update supports current studies under consideration by the University to daylight portions of the creek within the Campus Growth Boundary in order to recapture this “lost” natural resource, foster more effective, natural stormwater management and to create an amenity for the campus community.
In the agricultural and wooded areas of the campus, beyond the more developed reaches of Parkerson Mill Creek within the Campus Growth Boundary, a stream protection strategy is proposed. The protection strategy includes a 150-foot buffer zone along the creek alignment to protect water quality, prohibit development in the 100 year floodplain and limit animal access to the creek.

Although the campus core is served by engineered stormwater systems, much of the stormwater runoff drains to Parkerson Mill Creek. The 2007 Update acknowledges that stormwater management in the core will continue to utilize the engineered systems. However, in areas that represent major new development, low impact stormwater management techniques that facilitate on-site recharge or detention should be explored as projects are implemented.

**Specific recommendations of the 2007 Campus Plan Update relative to water resources include:**

- Planting deciduous trees along Parkerson Mill Creek to protect water quality and quantity within the stream
- Improving riparian buffers along Parkerson Mill Creek and its tributaries to allow for timed release of stormwater
- Considering the installation of greenroofs on future large span, flat roofed buildings to capture stormwater
- Utilizing pervious paving surfaces on future walkways and parking lots providing that soil conditions are appropriate.
- Providing a trail system along Parkerson Mill Creek to elevate awareness of the water resources of the campus and their importance to the campus ecosystems
- Utilizing Parkerson Mill Creek as a curriculum element and as a “Learning Laboratory”
- Reducing net water consumption on campus through better irrigation practices and efficiency / conservation practices within buildings.
3 SUSTAINABILITY AND THE MASTER PLAN

Building with east-west orientation
Green Roof opportunities
ENERGY EFFICIENCY AND ATMOSPHERE

The consumption of fossil fuels for generating electricity, conditioning buildings, and for transportation-related purposes is a significant cost consideration for the University. Further, the consumption of fossil fuels contributes to the demand the University places on the environment through air pollution and greenhouse gas emissions, among other impacts.

The 2007 Campus Plan Update addresses energy efficiency and atmospheric considerations by:

- establishing a more efficient transportation network,
- recommending sustainable site planning and landscape design principles,
- mitigating the “heat island” of the campus, and
- facilitating a compact land use pattern.

The 2007 Update places highest priority on land in the pedestrian core of the campus and land located within the Campus Growth Boundaries. The Campus Growth Boundaries are intended to contain sprawl, thereby facilitating a pedestrian-oriented land use pattern and limiting the need to extend campus infrastructure systems. Containment of development within the campus pedestrian core also facilitates the extension of the bicycle network and an efficient transit network.

Buildings in the Plan are sited in close proximity to one another and are oriented on an east-to-west axis, when possible. East-to-west is the optimal solar and daylighting orientation. Optimal building orientation can reduce energy demands by minimizing exposure to the western and eastern sun where heat gain is the greatest. For all
buildings, shading provided by trees or structures such as trellises external to the building is encouraged to eliminate direct heat gain and to reduce cooling loads.

Over the long-term the University may wish to consider installing photovoltaic devices on existing or proposed large-span flat roof buildings to diversify energy sources. Solar energy is expected to be more cost competitive with non-renewable fuels in the coming years. At the very least, Auburn should specify white roofs and green roofs in order to reduce roof temperature and improve the energy efficiency of buildings.
Shade trees, as estimated by Simpson and McPherson, can reduce peak cooling loads by up to 10 percent in climates such as that experienced at Auburn. Tree canopies clean the air by producing oxygen and absorbing airborne particulates and pollutants, making communities healthier. Urban forestry is also critical to responding to impacts of air quality and offer limited carbon sequestration benefits. Forests in the City of Auburn provide a vital air filtering quality that directly affects the well-being of the campus population. Trees offer air quality benefits by removing pollutants and greenhouse gases such as carbon dioxide, nitrogen dioxide, sulfur dioxide, ozone, and particulate matter.

**Specific recommendations of the 2007 Campus Plan Update relative to energy and atmosphere include:**

- Placing highest priority and value on developable land within the 10-minute walking circle and the Campus Growth Boundaries.

- Reducing CO\textsubscript{2} emissions by monitoring energy consumption through conservation practices, installing more efficient equipment over the long-term, and reducing the urban heat island.

- Utilizing existing building spaces more efficiently before constructing new facilities.

- Utilizing vegetation as a shading device to reduce cooling loads on buildings (vegetation on trellises or other structures in addition to shade trees).

- Installing white roofs or green roofs on existing and new buildings.

- Encouraging construction of LEED-certified buildings.

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INTEGRATED TRANSPORTION

A major goal of the 2007 Update is to reduce daily vehicle trips and future dependency on fossil fuels. The 2007 Update establishes a hierarchy of transportation options, placing human-powered transport as the priority modes of transport.

Pedestrianization: The intent of the 2007 Campus Plan Update is to create a pedestrian friendly core within the Campus Growth Boundary, placing highest priority on reusing existing or underutilized buildings within the 10 and 15 minute walking circle and infill development within the Growth Boundary. The proposed pedestrian network is coordinated with existing natural features such as the Parkerson Mill Creek corridor, which will serve as the spine linking the athletic and extracurricular nodes.
to the central academic core of the campus. It is important to note that promoting pedestrian movement requires an investment in the physical aspects of the network. The network must be designed for convenience, comfort, and safety. It must be shaded, positioned along key movement desire lines, areas of pedestrian / vehicular conflict must be resolved, and appropriate lighting levels provided.

Bicycles: The campus bicycle network is extended and coordinated to connect with proposed City of Auburn routes. Bike paths and biking lanes are intended to allow easier access throughout the core campus and resolve pedestrian and vehicular conflicts.
Transit: The Tiger Transit system at Auburn University is integrated into the Master Plan. The major stops and access points within the Campus Growth Boundary are coordinated with the pedestrian network to facilitate movement between modes. The intent is to facilitate access to the pedestrian network of the campus. While the specifics of transit services may change over time, convenience and quality should remain consistent; to continue to provide safe, desirable, and practical transportation to a proportional level of ridership that which is currently serviced.

Traffic Calming: Several traffic calming strategies are proposed in the 2007 Plan to provide safer streets and walking routes. Traffic calming involves matching engineering measures to pedestrian needs at specific sites throughout the campus.
Parking: The parking goal of the Plan is to minimize the use of valuable campus core land for parking. In order to foster a truly pedestrianized campus core, existing and available sites for development within the campus growth boundary must be reserved for academic and student support services. It is therefore necessary to construct additional parking garages and utilize peripheral sites for parking. This necessity requires an investment in safe, convenient and shaded pedestrian routes, and transit services between parking areas and the campus core. The University may also wish to consider additional policy and pricing strategies in conjunction with the Master Plan to encourage a vehicle-free campus core.
Future land uses within the Campus Growth Boundary will be limited to high priority academic uses or uses that support the academic, research and student life objectives of the University. The intent is to create a pedestrian oriented environment, concentrating major campus academic and student support facilities within the 10 to 15 minute walking circle from the center of campus. Some student housing is located within the Campus Growth Boundary, at the West Village, to activate the core area beyond the peak academic hours, and reinforce the concept of the pedestrian campus environment. Walking corridors along the Parkerson Mill Creek and traffic calming measures at select road crossing sites are intended to result in a safe, convenient, and pleasant pedestrian network, that reduces overall automobile presence within the campus core.

The transportation recommendations of the 2007 Update include:

- Reduce automobile use and priority on the campus
- Utilize traffic calming measures to enable human-powered transport
- Minimize the use of valuable campus land for parking
COMMUNITY

A cornerstone of the Master Plan Update is the establishment of the Campus Growth Boundaries, one of which defines the core campus as separate from the satellite precincts and agricultural land. By embracing the Core Campus Growth Boundary, Auburn can create a vibrant pedestrian-oriented campus center while maintaining the periphery for recreational purposes, natural system protection and agricultural and forestry activities. The Campus Growth Boundary facilitates community interaction by locating the major academic and social facilities of the campus within the pedestrian oriented area of the campus. The Plan supports community by creating or enhancing civic meetings points that integrate man-made nodes with natural features of the ecosystem. Specific recommendations of the Plan that are intended to foster community include the stadium green defined by the student center, the stadium and
3 SUSTAINABILITY AND THE MASTER PLAN

a future civic building. The green will serve as town square for the campus on a day-
to-day basis and during special events such as game day. The Plan provides specific
design recommendations to foster community by making the campus core a place for
people. This includes the strategic location of major new civic buildings, the creation
of new quads and green spaces, and the creation of landscape linkages between
the natural system corridors and the landscape of the core. Further, it supports an
environment for people by pedestrianizing the core.

Within the core, the Plan is designed to address the community groups that utilize the
Auburn campus. Residential students are organized into three communities: The West
Village, the University’s newest residential area; the Quads; and, the Hilltop Area.

The West Village, the newest residential area, includes accommodation for the sororities
and upper division students. The Village features over 1,600 beds of new suite-style
accommodation. The Village is centered around a significant new plaza and outdoor
gathering space defined by a new dining facility and the University’s new basketball
arena. Of all the residential communities, the Village offers closest proximity to the
amenities of the proposed recreation center and the existing student activities center,
aquatic center and the intramural fields.

The Quads lie at the center of the campus and are at the heart of the traditional core
of the campus. The Quads feature some of the best outdoor spaces of the campus,
which, as proposed in the Plan, will be linked to the amenities proposed in the Stadium
Green. The Stadium Green will be defined by the new student center. It also offers the
best connections to the Library.

The Hilltop residence halls serve as the center of freshmen experience at Auburn. The
University’s intent is to transform the Hilltop through a program of rolling renovations
and strategic additions to the buildings. The additions will connect and link the existing
buildings and will incorporate elevators and highly transparent vertical circulation and
public spaces such as study lounges and lobby areas.
Master Plan Environmental Outcomes

The urban design proposals for the Central Campus respond to the five sustainable goal categories established for the campus. The following is a summary of how the urban design proposals respond.

Natural Systems

- Parkerson Mill Creek Linear Park and Restoration project is extended into the core campus and linked with the proposed Stadium Green project, the intent of which is to link the cultural landscape of the campus with the natural system landscape.

- Reforestation is proposed along the Parkerson Mill Creek Linear Park to link with the existing and replenished tree cover of the Graves Amphitheatre area extending northward into the stadium green.

Water Resources

- The Plan encourages the concept of daylighting Parkerson Mill Creek when Parkerson and Allison Hall are removed as planned by the University. The intent is to allow a more natural ebb and flow for the creek.

- The creation of Stadium Green will result in the removal of impervious area from the central campus thereby providing more stormwater infiltration potential.

- The use of green roofs are proposed on major flat roofed large span buildings to decrease stormwater runoff.

- The use of pervious pavers and concrete is encouraged for future paved areas, where soil conditions permit.

Energy and Atmosphere

- The landscape proposals focus on reducing the heat island over the long term by including shade trees and trellises along major pedestrian routes and large paved areas.

- Buildings are oriented where possible in accordance with the optimal east/west orientation. Where not possible for urban design or other reasons, external shading is proposed.

- The use of solar panels and green roofs are encouraged for future buildings such as the Performing Arts Center to reduce CO2 emissions and and to reduce heat gain via the roof.

Integrated Transportation

- The pedestrian network both within the core will extend outward via the trails proposed in the Parkerson Mill Creek Linear Park.

- The Stadium Green transit way and transit hub at the student center provide an intermodal facility at the heart of the campus.

- Bicycle routes extend into the core where parking facilities and amenities are proposed at the student center and all other buildings.

- All parking garages tie into the pedestrian network to facilitate the “park and walk” concept.

Community

- Stadium Green will be the heart of the social community for the campus with the completion of the student center and the creation of the transit hub.

- West Village Plaza/Dining Center

- Student Recreation Center
Sustainability Implementation
Recommendations

The 2007 Campus Master Plan Update provides a framework for the development of a more sustainable campus over time. The framework also provides opportunities for engaging the faculty and students of the university in research, field work and volunteer work that will address the dimensions of sustainability which go beyond the physical environment. These include social and economic dimensions and are best addressed by the campus population.

As the University moves toward implementing the Plan Update, it is proposed that researchers, faculty, staff and students utilize the physical framework established in the Plan to focus curriculum and research activities on sustainable goals. Potential opportunities, among many others, are as follows:

Forestry and Wildlife Studies
- In conjunction with the campus landscape architect and grounds director, develop a reforestation strategy for the peripheral areas of the campus and an urban forestry strategy for the core. The urban forestry strategy should focus on providing shade and reducing the urban heat island in the core campus.
- Carry out a habitat inventory of the campus. Currently, there is no understanding or documentation of the campus habitats. An inventory is necessary for future planning decisions.
- Organize volunteer groups to remove invasive species from the campus.
- Conduct a riparian systems analysis along Parkerson Mill Creek.

Architecture and Building Science
- Research opportunities for energy efficiency and conservation.
- Research building integrated alternative energy.
- Research opportunities for using greenroofs as appropriate on campus buildings.
- Study the most appropriate integrated stormwater management strategies for the campus.
- Work with Forestry and Wildlife Studies and landscape architects to develop a sustainable landscape strategy for the campus.
- Lead projects using Geographical Information Systems to record habitat data, stream condition data, etc.

The above are just a few suggestions. The administration, faculty, staff and students at the University will need to take the initiative to affect this shift in culture and thinking at Auburn and integrate sustainability into the curriculum, research, and social life of the campus. The Plan provides a framework for organizing and focusing these initiatives, such that over time Auburn can become a more sustainable campus and University.
The 2007 Campus Plan Update provides a Vision for the gradual transformation of the campus. It is a Vision based on a number of sustainable design principles that will assist the University in creating a stronger, more vibrant community, reducing energy consumption, providing alternative transportation options, preserving water resources and habitats. The Vision represents the initial steps required to affect a shift in thinking at Auburn; a shift toward more comprehensive view of planning that embraces the key factors of sustainability as encompassed in the five categories of goals discussed in the previous chapter: 1) natural systems and habitat; 2) water resources; 3) energy and atmosphere; 4) integrated transportation; and, 5) community. The 2007 Update provides specific physical design recommendations that address these goals as well as the goals and principles set out in the 2002 Master Plan, which serves as the basis for many of the planning proposals of the Update.

The design guidance summarized in this chapter is intended to direct the implementation of the 2007 Campus Plan Update in accordance with the above noted goals and principles. The guidance focuses on placemaking with the aim of creating an environment that fosters stewardship, and educates the campus community with regard to the local, regional, and global environmental issues. The Update supports community by creating or enhancing civic meeting points that integrate the cultural nodes with natural features of the campus and by preserving the architectural history and traditions of the University.

The urban design ideas presented in this chapter emerged from an analysis of sustainability on campus, reconciling the human need for structures and buildings with the natural environment. This chapter discusses the following:

- Natural Systems and Landscape Framework
- Circulation Framework
- Development Capacity Framework
- Urban Design Framework
Core Campus
NATURAL SYSTEMS AND LANDSCAPE FRAMEWORK

The Natural Systems and Landscape Framework of the 2007 Plan Update provides connections between the natural features and the existing landscape spaces of the campus such as the Upper and Lower Quads, Cater Lawn and the Graves Amphitheatre area. The Framework, by protecting and extending the natural system framework through landscape interventions, defines the development and spatial pattern of the campus. It includes a reforestation strategy extending into the core campus and a series of connector landscape interventions.
The Plan acknowledges and enhances the major natural features of the campus such as Parkerson Mill Creek, the Campus Forest, the Duncan Drive Forest, and the agricultural lands, and by means of new landscape connections links these features to the existing quads and open spaces. The preservation and enhancement of the natural features addresses broader goals to preserve, repair and establish wildlife habitats on the campus.

Conceptually, the existing features and landscapes serve as the armature and organizing element of the Plan. The intended outcome is a “working landscape”—a landscape that provides both aesthetic and functional value. The proposed landscape interventions in the 2007 Update include:

- Enhancing and extending the existing natural system landscape pattern, most notably along Parkerson Mill Creek;
- Providing shade for human comfort along major pedestrian routes and for decreasing the heat island around buildings;
- Addressing water quality and stormwater management issues by protecting Parkerson Mill Creek outside the Core Campus Growth Boundary and by restoring and enhancing the creek within the Growth Boundary;
- Protecting the likely habitat corridors of the campus;
- Defining pedestrian and cycle pathways linking the natural systems, the existing landscape features and the major new open spaces proposed in the Plan.

The following paragraphs explain in more detail the concepts and recommendations relative to the Natural Systems and Landscape Framework.
**Natural Systems**

*Parkerson Mill Creek Linear Park*

Within the Core Campus Growth Boundary, the two main branches of Parkerson Mill Creek have been placed in culverts, and as a result, the creek has been lost as a natural feature and amenity for the campus. At this writing, studies are underway by the University to potentially daylight the eastern branch of the creek alignment (just south of Roosevelt Walk). The intent is to reintroduce this important natural feature into the campus environment and address significant engineering and stormwater management issues associated with the poor conditions of the culvert. This initiative requires further detailed study to determine the feasibility.

Along the section of the creek west of S. Donahue and north of W. Samford, it is recommended that Biggio Drive be closed as a vehicular route. In place of Biggio Drive, a pedestrian and bike pathway is proposed, featuring a narrower paved cross section in conjunction with additional tree cover.

Restoration and enhancement of the creek is also part of a broader concept to create a linear park along Parkerson Mill Creek. The creek is envisioned as the armature of a pedestrian / bicycle route network extending from the proposed civic spaces within the Core Campus Growth Boundary to the outlying recreational areas and beyond to the College of Veterinary Medicine and the Research Park. The two northern reaches of the Parkerson Mill Creek will link the new West Campus Village and the former CDV area with the athletic and extramural fields, and will provide a gateway from the developed core to the agricultural and wooded areas to the south.

Designating the land along Parkerson Mill Creek as a linear park and stream restoration area results in several positive outcomes: 1) it provides alternative transportation routes by extending the pedestrian and cycle network to the intramural fields and fraternity row along Lem Morrison (further supporting the aims of an integrated transportation network); 2) it provides recreational and exercise amenities; 3) it addresses stormwater management issues, especially in the built-up core of the campus, potentially by providing more pervious area; 4) it highlights the natural systems of the campus for educational purposes; and, 5) it establishes a continuous landscape armature through the campus.

Outside the Core Campus Growth Boundary, a 150-foot buffer is proposed beyond the 100-year floodplain, to improve water quality (separating farm animals from the Creek); and, to prevent development from encroaching into the areas adjacent to the creek. In addition to the buffer zone, reforestation of the creek edge is recommended to further improve water quality and the natural functions of the creek.
Parkerson Mill Creek and the 100-year floodplain
The creek buffer is divided into zones as follows:

Zone 1: Streamside Zone
- Extends 50 feet from edge of stream
- Allowable uses include footpaths only
- Undisturbed natural vegetation/tree root stabilization
- Reforest eroded edge of stream for bank stabilization

Zone 2: Middle Zone
- Extends a minimum of 50 feet from Zone 1
- Allowable uses include a bike path

Zone 3: Outer Zone
- Low lying vegetation and shrub buffer between development and Zones 1 and 2
- Prevent encroachment into the forest buffer and to filter runoff from residential and academic building development
Subject to soils analysis, the trails along the Creek should be constructed of a permeable material, such as crushed stone, cinder, gravel, or porous pavement. Appropriate lighting should be installed along the Biggio Drive section of the Parkerson Mill Linear Park using full cutoff luminaires to ensure the safety of those using them during evening hours.

Within the Core Campus Growth Boundary, a creek protection buffer zone is proposed for the western most branches of Parkerson Mill Creek. Given existing conditions, a 300-foot wide zone may not possible. In constrained areas of the creek a 100-foot wide zone is proposed.
Campus Forest

The Campus Forest, located south of Lem Morrison Drive and north of the Research Park, is preserved as an important natural resource of the campus. The Plan acknowledges the aesthetic qualities and the functions it performs in terms of habitat, stormwater management, air quality and carbon sequestration. It is also acknowledged in terms of the research and passive recreational opportunities it presents.

It is recommended that the Campus Forest be managed in a sustainable manner. The Campus Forest can be used for academic research related to the School of Forestry and Wildlife Sciences and other natural science programs.
**Duncan Drive Forest**

The wooded area adjacent to the Forestry and Wildlife Sciences Building is preserved in the Plan for the same aesthetic and functional qualities noted above in the discussion of the Campus Forest. The wooded area will provide a learning laboratory for students and staff of the School and will provide a buffer at the edge of the established Core Campus Growth Boundary. It too should be managed in a sustainable manner and include passive recreation trails. The intent is to extend the trails through the woods to connect with the Ag Heritage Park proposed to the west of South Donahue.

**Arboretum**

Located at the eastern edge of campus, the Donald E. Davis Arboretum is home to hundreds of tree species. This carefully managed landscape has historical, cultural, and ecological value and is preserved and maintained to support community and campus uses. The Plan provides recommendations for more effectively linking this important campus landscape and habitat with the proposed natural systems and connectivity framework via PO Davis Drive.

**Agricultural and Pasture Land**

Auburn University has been the steward of public land for well over a century, a reflection of its land grant heritage. As the University looks forward, land stewardship will be even more important during the next century.

The 2007 Campus Plan Update acknowledges the value of the outlying agricultural and pasture land in terms of its function in the local ecosystem and in terms of the value it adds to the academic and research mission of the University. The agricultural and pasture land functions as the lab space for the College of Agriculture and the College of Veterinary Medicine, and for that reason, is preserved to serve the mission of these colleges. Beyond the functional attributes of the land, the open visual quality and agrarian heritage of the land is as important to the character and image of the University as are the historic buildings of the campus core. The land distinguishes the Auburn campus from the surrounding strip commercial development along South College Avenue which has no connection to the region or to Auburn as a place; streetscapes such as this are common throughout the country and reflect no association with local conditions. Auburn without its agricultural and pasture land would be a very different place and would no longer have a physical expression of its land grant heritage.

To protect the agricultural and pasture land of the campus, the 2007 Update designates a Campus Growth Boundaries to contain development within the following areas of the campus: 1) the core campus where investments in major infrastructure are already in place; 2) the art museum; 3) the Research Park; and 4) the Services
The intent is to protect the agricultural lands from sprawl and from an auto-oriented approach to campus development. Future construction outside the Growth Boundaries will be limited to buildings required for the agricultural programs. Other buildings proposed outside the Growth Boundaries should be subject to debate and careful consideration and should only be approved if no other viable alternative can be identified. Similarly, the construction of new roads that divide or segment the existing agricultural or wooded areas of the campus should not be permitted.

The Agricultural Heritage Park remains as an important feature in the Plan. The Heritage Park will highlight Auburn’s land grant heritage and will be linked to other areas of the campus via the landscape framework. The framework includes a reforestation strategy to link the Campus Forest to the Ag Heritage Park and eastward to the Duncan Drive Forest and along PO Davis Drive to ultimately connect to the Arboretum.

Proposed Landscape Connections and Spaces

The 2007 Campus Plan Update includes several new landscape connectors and landscape spaces which are intended to extend and repair the natural systems of the campus and provide linkages between those systems and the existing and proposed landscape spaces.

Providing shade for human comfort and for reducing the heat gain is a key objective of the Update. It, therefore, is recommended that the University work with the School of Forestry and Wildlife Management to develop an urban forestry strategy that is coordinated with the proposed connector landscapes and new civic spaces. The strategy should address the need for shade trees within the core campus area, and the need for reforestation along Parkerson Mill Creek and on the periphery of the Campus Forest and Duncan Drive Forest.

The urban forestry strategy is an important part of the proposed landscape framework for the campus and includes several initiatives, which are described in this section.

Connectivity

PO Davis Drive

PO Davis is envisioned as a connector between the Duncan Drive Forest and the Arboretum. The 2007 Plan Update calls for a redesign of the PO Davis streetscape as the South Campus area is redeveloped. Conceptually, connectivity will be provided by a consistent landscape edge on both sides of the street to provide shade, improve pedestrian linkages and provide bio-detention swales (provided soil conditions are appropriate) as part of a stormwater management strategy for South Campus area.
1. West Thach Walk

Since the completion of the 2002 Master Plan, West Thach has been closed to vehicular traffic and converted to a pedestrian walkway. The result is an improvement in pedestrian safety and convenience, and an improvement in the aesthetic qualities of the central campus area. Thach Walk would, however, benefit from additional shade trees to reduce heat gain and improve pedestrian comfort. To that end, the 2007 Plan Update includes recommendations for enhancing the positive qualities of Thach Walk with additional trees. It is also proposed that pedestrianized portion of West Thach be extended to the west, crossing S. Donahue and connecting with the West Village.

To the west of S. Donahue, in the proposed West Campus housing area, West Thach is designated as a pedestrian / bicycle pathway defined by shade trees. Subject to further study, the Thach alignment in the West Campus area may also incorporate bio-detection swales as part of a stormwater management strategy for the West Campus.
2. Haley Concourse

Haley Concourse is a key north / south pedestrian route, which like Thach Walk, would benefit from a tree planting strategy to provide shade and aesthetic improvements. As Haley Concourse is redesigned as part of the new student center project, it is recommended that shade be a key consideration along this important route. The 2007 Update calls for the extension of Haley to the south to link with the Hill Dorms and north to link with Magnolia Street.

3. Biggio Drive

In order to extend the pedestrian environment of the campus and restore Parkerson Mill Creek, the Biggio Drive corridor will be closed to private vehicular traffic. Biggio Drive parallels Parkerson Mill Creek. The corridor will be reforested and transformed as a circulation route for pedestrians, cyclists and for service/emergency vehicles. It will be enhanced with trees and native vegetation and a portion of the adjacent parking area to the east of the Coliseum will be scaled back to provide ample landscaping opportunities. Trees will be used to stabilize the creek bank, and filter pollutants that enter the creek. As part of this redefined landscape and pedestrian connector, Biggio Drive will link the Graves Lawn area with the intramural fields to the south.

Landscape Spaces

4. Stadium Green

Stadium Green is envisioned as the civic and social heart of the Auburn Campus. It is intended to be the central gathering space which the campus currently lacks—a gathering space defined by three important structures: 1) Jordan Hare Stadium; 2) the new Student Center; and, 3) a site for a future building with civic qualities. Stadium Green will consist of a large ceremonial and passive recreation lawn defined by shade trees and bold landscape features. The Green will be planted with shade trees, small ornamental trees, shrubs, groundcover and lawn in a simple pattern that adds detail and definition to the lawn which will symbolically link athletics and student life. Stadium Green is intended to connect with the Graves Amphitheatre and area and the Parkerson Mill Creek alignment located in the central campus area. The Green will serve as a major node in the campus landscape where the manmade environment interfaces with a renewed Parkerson Mill Creek alignment.

Stadium Green is located at crossroads of several major pedestrian routes and landscape connectors including Haley Concourse, Roosevelt Walk and Quad Drive. Improvements are proposed for Quad Drive to provide a better pedestrian connection between the Green and the library. These include shade trees and paving improvements.
5. West Village Plaza

The proposed West Village Plaza will serve as the central organizing feature of the new housing area. The Plaza is linked with the western branches of Parkerson Mill Creek via a linear pedestrian spine. The proposed housing is organized around a series of new quads that link with the Plaza. The West Village area is linked to the Athletics district via a new landscape / pedestrian link extending from the Plaza to the Parkerson Mill Creek Linear Park via the space between the aquatics center and the Student Activities Center.

New Quads

Several new quads are proposed in the North Campus area. These include Lowder Lawn at the Business School, and two new quads in the Engineering Precinct. Lowder Lawn is a long-term recommendation to remove the intrusive parking to the south of the building and create a more appropriate setting for this major campus facility. The quads in the Engineering Precinct include a proposed open space defined by a parking garage on the site of the existing “L” buildings and on the existing parking area to the west of the Charles E. Davis Aerospace Engineering Building. All of these quads are linked to the emerging open space at the Shelby Center via the east/west pedestrian spines proposed in the area.

Additional quads are proposed in the Hill Dorms area where parking will be removed from the existing open spaces to create new places for student interaction and passive recreation. A major new passive recreation lawn is also proposed in the Hill Dorm area on the site of the existing Terrell Hall Dining Facility which will be replaced.

The South Campus will also include a major new quad defined by future buildings such as the Office of Information Technology and the existing Poultry Science Building. The South Quad will be oriented east to west and will incorporate the existing wooded area at the southeast corner of Duncan Drive and PO Davis Drive.

CIRCULATION FRAMEWORK

The 2007 Campus Plan Update adopts an integrated approach to transportation and circulation throughout the Auburn campus with emphasis placed on human-powered transport. To that end, the pedestrian network is given priority. The interface of the pedestrian network with the bicycle circulation system and transit stops is given special consideration.

The main priority with respect to circulation, is demand management of the automobile. The aim is to reduce daily vehicle trips to and from campus, as well as within campus; reduce transportation-related CO2 and other greenhouse gas emissions; provide a safer pedestrian and cycling environment; and decrease demand
for parking. Additionally, the Update aims to reduce investments in parking and reduce environmental impacts from parking such as polluted runoff and consumption of land.

**Pedestrianization**

The primary focus of the 2007 Campus Plan Update is pedestrianization, through creation of a Pedestrian Priority Zone and traffic calming features. It focuses academic activity within the core campus, provides safe and convenient access to peripheral parking areas, adjusts existing road alignments as part of both urban design and traffic calming strategies. In all areas, the provision of shade and shelter to improve pedestrian comfort is recommended. To that end, the Update features the introduction of shade trees along all major pedestrian routes.
The Pedestrian Priority Zone (PPZ) is generally bounded by West Magnolia, South Donahue, West Samford, and Mell Street. Continuations of the PPZ are located to the west of South Donahue in the West Village area and to the south of West Samford in the Hill Dorm area. To facilitate the creation of the proposed Pedestrian Priority Zones, traffic calming features are proposed as indicated in the Pedestrian Priority Zone diagram. These locations will be targeted for various types of traffic calming including differentiation in pavement texture and/or color; speed tables; and raised intersections. Other traffic calming devices may be considered where appropriate.

The 2007 Update features several major pedestrian spines including: Haley Concourse, Thach Walk, Roosevelt Walk and North Walk, a proposed route extending from...
S. Donahue to Ross Hall. These spines, in combination with the finer grain of pedestrian routes in the core, connect with the surrounding city sidewalk system and the proposed trail systems of the Parkerson Mill Creek Linear Park, including Biggio Walk.

**Bicycles**

The secondary focus of the circulation strategy is bicycling. The 2007 Campus Plan Update promotes the bicycle as a form of transport to and from campus, within campus, between each precinct and between the periphery of campus to the campus core. Future policies should establish pedestrian priority in a few focus areas of the campus; however, bicycles will be permitted in almost all areas of the Pedestrian Priority Zone. In order to prevent bicycle-pedestrian conflict, bicycles will be prohibited on major interstitial sidewalks with high pedestrian traffic, as follows:
On West Thach between Haley and Foy Square

On Haley Concourse between West Magnolia and West Samford.

The intent is for bicyclists to utilize the periphery of the Pedestrian Priority Zone, dismount bicycles and walk or park them. Signage is proposed to indicate the routes where cyclists must dismount bikes and walk.

Bicycle parking and air will be provided in the three parking garages proposed in the Plan Update.

The proposed bicycle circulation network is based on the recommendations of the campus task force charged with studying the needs of cyclists.

Transit

The third focus of the integrated circulation strategy is transit. Transit currently plays a significant role in the day-to-day operation of the campus and will continue to be a priority in reducing daily vehicle trips, decreasing parking demand and reducing transportation related CO2 and other greenhouse gas emissions.

Transit services are concentrated along the major street corridors as indicated and circulate on the periphery of the Pedestrian Priority Zones, with the exception of the Stadium Transitway. In this area, transit services will circulate in the central Pedestrian Priority Zone and interface with the new Student Center, which is intended to serve as the commuter gateway to the campus. The Student Center will feature amenities designed to serve the commuting population.

Vehicular Traffic

The final focus of the circulation network is vehicular circulation. As part of the intent to promote pedestrianization, the aim of the 2007 Update is to reduce the amount of vehicular circulation occurring within the campus core. The private automobile is still served, but will be restricted to the periphery with exception of those with physical disabilities. Traffic calming will be used at the edges of the Pedestrian Priority Zone, and in key areas to resolve conflicts between pedestrian areas and vehicular routes.

Service and emergency access is considered within the Pedestrian Priority Zones where shared pedestrian/vehicular routes are proposed. This approach to access will require signage and, potentially, access control devices, issues that will need to be evaluated during the implementation phase.
**Road Realignment**

Several road improvements in the Plan will provide for vehicular circulation and will address pedestrian safety concerns.

- **Realignment of Wire Road**: Wire Road, over the long-term, is to be realigned at the existing intersection with Roosevelt Drive. The intent is to provide more efficient flow of traffic, create a vehicular route that mitigates vehicular use in the campus core, and provides additional land for the West Village area.

- **Wire Road** serves as a major access route into campus from the southwest and is intended to provide access to commuter parking areas north of Thach, keeping vehicular traffic to the periphery of the Pedestrian Priority Zone.
- Extension of Lem Morrison Drive: Lem Morrison will be extended to the north beginning at the intersection of Lem Morrison and Wire Road. The road will continue north to Magnolia and beyond to Glenn Road. The intent of the extension is to provide a loop road around the core campus to serve through traffic and provide access to the peripheral parking proposed in the former CDV area.

To assist campus visitors, a potential visitor center is proposed at the intersection of S. College Ave & S. Donahue.
Traffic Calming

Traffic calming is proposed to minimize pedestrian and vehicular conflicts throughout campus and, in particular, at the periphery of the pedestrian Priority Zone. The range of traffic calming measures to be considered is as follows:

- Speed Tables - larger flat topped bumps often constructed with brick or other textured material typically the length of one car. Speed impacts associated with a 22-inch table are a 6.6 mph reduction in average speed.1

- Raised Intersections - flat areas covering entire intersections with a raised brick or textured surface making the entire intersection pedestrian territory. Speed impacts associated with a raised intersection are a 0.3 reduction in average speed going through an intersection.2

- Variation in pavement, texture, permeability, and style of road material

Parking

The parking strategy of the 2007 Campus Plan Update is to provide adequate parking to serve the needs of the University. The aforementioned focus on alternate modes of transportation is intended to:

- Reduce the demand for parking
- Reduce environmental/aesthetic impact
- Reduce CO₂ and other greenhouse gas emissions associated with vehicles
- Reduce daily trips to and from campus
- Reduce trips between points within campus
- Divert vehicles from the Pedestrian Priority Zone to peripheral parking

1 Delaware State Department of Transportation.
2 Delaware State Department of Transportation.
An inventory of parking on-campus was completed for the year 2005, showing a total of 10,600 parking spaces. The parking inventory concluded that over 2,000 spaces are available on-campus during peak hours, indicating that there is a surplus of parking.

### Parking Inventory, 2005

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Source: Carl Walker Parking Inventory, Based on Peak Demand

The strategy recommended in the Master Plan concentrates parking on the periphery of the campus with the exception of two new parking garage locations proposed in the Plan. Parking garages are proposed at the following locations as needed:

- Engineering Precinct (650 spaces)
- South Campus Garage (650 spaces)

Peripheral parking is located at the former CDV site.

By locating parking at the periphery, centrally located sites which are still developable may be used for academic and residential uses. Parking that is located within the Campus Growth Boundary will be constructed utilizing sustainable techniques as follows.

- Use pervious pavement for surface parking where soil conditions permit
- Use light-colored pavement where surface parking is necessary
- Use localized stormwater management techniques such as detention basins
Potential Development Capacity

Under Construction
1. Student Center - 68,786 sf
2. West Village - 183,067 sf

Athletics & Recreation
3. Basketball Arena - 125,852 sf
4. Wellness/Fitness Center - 50,204 sf
5. Future Recreation - 65,909 sf
6. Stadium Seating - approx. 14,800 sf

Campus Support
7. Facilities Services - 11,123 sf
8. Facilities Services - 19,856 sf
9. North Garage - 650 spaces
10. OIT Building - 40,000 sf
11. South Garage - 650 spaces

Residential & Residential Support
12. Hilltop Dining Commons - 19,856 sf
13. Vertical Circulation/ Amentiy
   Space Additions (multiple bldg.)
15. Hilltop Quad 2 - 128,856 sf (360 beds)
16. Hilltop Quad 3 - 98,697 sf (280 beds)
17. Hilltop Quad 4 - 117,150 sf (300 beds)
18. Fraternity - 25,418 sf
19. Fraternity - 25,418 sf
20. West Dining Commons - 27,195 sf
21. Building 1 - 59,560 sf
22. Building 2 - 40,103 sf
23. 12,214 sf (Large Animal Research Center, SW of Equestrian Center - not shown

The capacities noted indicate an estimated gross square foot area of the building. Actual building capacity is variable relative to the designated height of the structure, and relative gross to net ratio as established by the programmatic requirements, and building design. Suggested program improvements and/or expansions associated with the footprints shown are documented in the 2007 Campus Plan Update Program Requirements section of this report.

Building capacities and recommended program improvements and/or expansion pertaining to the Research Park and the College of Veterinary Medicine Campuses are documented in the sections of this report corresponding to those topics.
Parking Policy

It is recommended that the physical design strategies be supported by policy and pricing strategies which may further diminish daily vehicle trips and the intrusion of the automobile into the campus environment. These include policies which encourage people to “park once and walk”. This requires permits that limit users to specific geographic locations and thereby limit driving between points on campus.
Visitor Center and Wayfinding

Visitors will be greeted at the proposed Visitor Center located at the intersection of South Donahue and South College. From there, visitors will then be directed to the core campus, and visitor parking areas. As an alternative, a shuttle service may be provided to transport visitors between the Visitors Center and the central campus.

DEVELOPMENT CAPACITY FRAMEWORK

Future academic, research and student support facilities are concentrated in the Core Campus Growth Boundary or within the other identified development districts including the College of Veterinary Medicine, the Research Park, the Art Museum or the Services District. The capacity of the core campus to accommodate future facilities takes two factors into account:

- The capacity needs are set by the planning target enrolment of 25,000 students.
- The objective of accommodating 80 percent of the incoming freshmen class in on-campus housing.

Flexibility for Future Facilities

The 2007 Update provides capacity and flexibility for facilities needs beyond those that have been planned or projected. By delineating potential building sites in the core area in excess of the area required for known projects, the Update makes provision for two factors:

1. Various schools, colleges and administrative units are and will request space in addition to that currently identified.

2. The capacity space indicated in the 2007 Plan is also intended to give the University some choice and flexibility in where to locate future facilities.

The capacity response is set by identifying appropriate future building sites that are:
- Located within the Core Campus Growth Boundary or within existing footprints or other districts;
- Co-located within existing buildings or developed through reuse of existing buildings where space is not fully utilized.
- Developed on appropriate infill sites in accordance with the scale and massing recommendations of the Character and Image Study (generally, 3-4 story buildings).
• Developed at a density that is efficient in its use of prime land and previously
devolved land as opposed to undeveloped or wooded sites. By defining future
building sites in accordance with the sustainable design principles which place
priority on building reuse, improvements to space utilization, infill development and
compactness within the Core Campus Growth Boundary, the 2007 Update responds
to energy efficiency, resource consumption, and quality of life issues.

The future capacity for residential space also exceeds the projected needs, providing
flexibility. An estimated 1,200 beds can be accommodated in the Hill West area.

The 2007 Update indicates potential locations for parking structures. As land is used
for future facilities and open space improvements in the core areas, surface parking
will be displaced. The Update indicates two potential locations for parking structures
with an estimated aggregated capacity of 1,300 - 1,400 spaces.

Land Use and Spatial Pattern
The land use and spatial development pattern of the campus is defined by the natural
systems and landscape framework. Outside the Core Campus Growth Boundary, the
land use pattern preserves the existing agricultural and forestry related uses. It protects
the natural systems along Parkerson Mill Creek and its tributaries and preserves/
extends the Campus Forest to the north to link with the Ag-Heritage Center, Duncan
Drive Forest and the Arboretum via a redesigned PO Davis Drive.

The land outside the Core Campus Growth Boundary was the subject of a Land Use
Plan for Auburn University’s Agricultural Lands, completed in August 2001 by Sasaki
Associates, Inc. The Land Use Plan was based on the following objectives:

1. To accommodate the long-term land and building needs of the College of Agriculture,
   the School of Forestry and Wildlife Sciences, and the College of Veterinary Medicine
   in a way that matches the needs to the characteristics of the land, improves
   operational efficiency, and fosters interdisciplinary relationships.

2. To maintain close proximity to the academic core for those facilities which involve
   undergraduate teaching activities.

3. To accommodate non-agricultural land and building requirements and develop land
   use patterns that consolidate related uses and encourage land conservation.

4. To develop and maintain useful open space and natural areas for water quality
   protection, and to enhance research, teaching outreach and recreational purposes.

5. To identify land for possible acquisition to protect and consolidate University land
   resources, and to identify underutilized land that can be consolidated for other uses.
The recommended land use changes and preservation strategies are in accordance with the objectives. The land analysis revealed that there are approximately 240 acres of riparian and woodland areas unsuitable for development and 420 acres available for land use change. The balance of the site is occupied by fixed assets such as the College of Veterinary Medicine and the fraternity properties.

Others include:

- Natural Systems and riparian corridors – Parkerson Mill Creek and its tributaries will be preserved as a continuous open space reserve.

- Agricultural Lands: The Animal Sciences fields and facilities will be consolidated on land generally south of Lem Morrison Drive, on both sides of Shug Jordan Parkway.

- Horticulture fields and facilities will be incrementally consolidated on land south of Lem Morrison and east of South Donahue Drive. The Horticulture greenhouses on West Samford Avenue will be relocated to an organized complex of Horticultural facilities south of Woodfield Drive. Horticultural research, teaching and demonstration plots south the Arboretum, some of historical record, will be maintained. Agronomy and Entomology will also be consolidated in that area.

**URBAN DESIGN FRAMEWORK**

Within the Core Campus Growth Boundary, the urban design framework established in the 2002 Plan serves as the general basis for building placement and placemaking in the 2007 Plan Update. The framework seeks to get the highest and best use of the land in the central precinct through a strategy of infill development and redevelopment. Consistent with 2002 Plan, the campus can be divided into five precinct or districts: The central campus, the west campus, the north campus, the south campus and the recreation and athletics district. This section describes each area of the urban design framework in detail.

**Central Campus**

The Central Campus, defined as the area bounded by Thach on the north, South College on the east, West Samford on the south and South Donahue on the west, will be the focus for several future academic and student support facilities. Conceptually, the Central Campus area is viewed as the heart of the campus academic and social life. Further, it is viewed as the most valuable land in terms of fulfilling the mission of the University. It will continue to serve as a mixed use district including the residential areas of the Upper and Lower Quads.
Central Campus Design Framework

The 2007 Update introduces the concept of the Stadium Green which integrates several aspects of student life into one central meeting place. Stadium Green is envisioned as the great central park of the campus – serving as the focal point for day-to-day student life and game day social events. The Green serves as the central organizing element for the urban design framework in the Central Campus.

The design concept reconciles the radiating geometry of the stadium with the orthogonal grid which defines the eastern portion of the campus. The curvilinear lines of the Stadium are extended into the orthogonal grid of the campus to define the edges of the Green and to establish the building and landscape edges for the student center and future buildings surrounding the Green. Spatially, the Green will be defined by a great lawn and shade trees and will serve as a foreground to the stadium. It will also serve to integrate this landmark structure into the campus fabric.

The Stadium Green concept links athletics and student life. The football stadium and the new student center frame Stadium Green and create a multifunctional heart to the campus core. It will be flanked by the student center on the north and a future civic or academic building on the south. It will be the crossroads of several major campus pedestrian routes including Haley Concourse, Roosevelt Walk and the trails proposed in the Parkerson Mill Creek Linear Park.

At the landscape framework level, Stadium Green will link to the Graves Amphitheatre area where Parkerson Mill Creek could be daylighted when Parkerson and Allison Halls are removed. Conceptually, Stadium Green is envisioned as a node where the cultural landscape of the campus will interface with the extended natural systems landscapes along Parkerson Mill Creek.

Central Campus Connectivity

Implementation of the Stadium Green Concept will have many positive outcomes including the removal of over 400 parking spaces from the core campus and a reduction in the total impervious area. It will require the realignment of Duncan Drive to follow the curvature of the stadium and the realignment of Roosevelt Walk to follow the curvilinear walks emanating from the stadium. The realigned Duncan Drive will serve as the Stadium Transit way in conjunction with the commuter gateway transit hub proposed at the Student Center. The Stadium Transit way will extend along the north end of the Stadium, providing a direct link to S Donahue. The proposed circulation changes will be linked with Stadium concourse improvements which will wrap around the north end of the Stadium. The concourse pedestrian improvements will serve to link the West Village area more effectively with Central Campus. Improvements to Quad Drive are also proposed to improve the safety and comfort of this important pedestrian connection between the Student Center and the Library, an important connection with regard to the social and academic life of the student population.
Central Campus Facilities

Student Center
The new student center will define the north end of Stadium Green. At the campus design level, the Student Center is positioned at the heart of pedestrian movement and academic activity. The building will be linked with the Haley Center, the general classroom building for the campus. It is located on the main north/south pedestrian route of the campus, Haley Concourse and will serve as the central transit station for the campus bus system. It will serve as the central gathering facility for the campus community and as the campus gateway for a majority of the transit users.

Central Campus Additional Capacity
The Central Campus area has the capacity to accommodate future academic space on infill and redevelopment sites. A key infill site is reserved east of the Central Parking Garage for a new academic or support building. Given the prominence of the site relative to Stadium Green, it is recommended that it be reserved for buildings of civic or campus wide importance.

Infill development is also proposed along the southern extension of Haley Concourse to the west of the Science Lab Center where two future academic buildings are proposed to define the eastern edge of the central open space extending from Stadium Green to the existing Graves Amphitheater area. These buildings also serve to more effectively link Dudley Hall into the proposed framework of pedestrian and open space structure for the Central Campus.

Redevelopment is proposed for the existing Leach and Sewell Hall sites at such time that these facilities are no longer required. The Leach/Sewell site provides many design opportunities as a result of topography and location along the proposed Parkerson Mill Creek Linear Park. Specifically, the site can be linked to the pedestrian network of the park and to future housing development proposed south of W. Samford. Further, the site is some 20 feet above the Parkerson Mill Creek Park providing opportunities to orient future buildings for views of the park and the baseball field to the north.

Additional infill sites are identified on Ag Hill adjacent to the Comer Hall Lawn. Buildings in this area would need to be designed to complement Comer Hall and define the lawn area.

An infill site is identified to the west of the Upper Quad residence halls to further define the edge conditions along Haley Concourse. This site requires the removal of two existing residential scale structures: Glanton House and 314 Quad Drive. Over the long-term, this centrally located site can be put to higher and better uses.
**West Campus**

The West Campus is defined as the area to the north and south of the W Thach corridor. It is located to the west of S Donahue and is currently utilized for commuter and event parking.

**West Campus Design Framework**

The vision for the West Campus in the Plan Update is to create a mixed use campus district featuring a new basketball arena and a major new residential community. To be known as the West Village, the proposed housing will be organized around a series of quadrangles and a central public plaza, the Village Plaza. The Village responds to the evolving housing strategy for the University which calls for housing 80 percent of the incoming freshmen class on campus. To that end, the plan is to construct 1,600 beds of housing to accommodate upper division and sorority students who are currently living in the Hill Dorms, which, in turn, will be renovated to serve as the freshmen village.

The urban design framework for the West Campus is organized around the Village Plaza, a new public space which will serve as the central gathering space for the resident population and more broadly function as a new civic space for activities scheduled in the adjacent basketball arena. The Village Plaza will be defined by the basketball arena, a new dining / community commons facility and housing. Conceptually, the Plaza is intended to integrate basketball and other sporting activities into the day-to-day life of resident students.

**West Campus Connectivity**

The West Village is linked to the Central Campus via the pedestrianized Thach Walk. To facilitate the crossing at S. Donahue, traffic calming strategies are recommended for the intersection of Thach Walk and Donahue. The exact details of which will need to be explored during implementation.

The West Village is connected to the existing and proposed recreation facilities in the Recreation and Athletics District via a proposed pedestrian spine linking the Village Plaza to the Student Activities and Aquatic Centers. The pedestrian spine will ultimately connect to Parkerson Mill Linear Park and beyond to the intramural fields. Connections are also provided to the western branch of Parkerson Mill Creek via a Thach Walk, which will also connect to the proposed remote parking areas at the former CDV. Parking for the proposed residential community will be provided in the remote parking area.

**West Campus Facilities**

Proposed facilities in the West Campus represent a significant expansion of University housing and event space. The residence halls will include 1,600 beds in a suite-style configuration replete with meeting rooms and amenities for the sororities which will
be relocated from the Hill Dorms. The residence halls are organized by a series of new quads reminiscent of the Upper and Lower Quads. The building heights will vary from four to five stories.

The basketball arena will provide the University with a modern facility which is more fully integrated into campus life than the existing arena. Student access to the arena will be provided via the Village Plaza, which will serve as a locus for pregame activities.

A dining hall and student commons is proposed on the Village Plaza. The dining hall will serve as the social center for the resident community and should include study and social lounges for students. It should also feature shaded outdoor seating areas.

**West Campus Additional Capacity**

The West Campus urban design framework encompasses the site of the existing CDV Extension. It is unprogrammed at this time but is considered to be an appropriate location for future residential facilities, recreational amenities or parking. Future development in this area should respond to the West Branch of the Parkerson Mill Creek protection buffer and preserve existing tree cover to the degree possible.

**The Recreation and Athletics District**

The Recreation and Athletics District encompasses the area defined by Roosevelt Drive on the north, S. Donahue on the east, W. Samford on the south and Wire Road on the west. The district includes several existing recreational and athletics facilities.

**Recreation and Athletics District Design Framework**

The urban design framework overlays a system of landscape pedestrian corridors and improvements to Parkerson Mill Creek with the aim of providing an organizational structure for existing and future development. The overlays include a new pedestrian spine extending the existing routes between the Aquatics Center and the Student Activities Center to the north to intersect with the West Village Plaza. This route extends to the south to intersect the proposed Parkerson Mill Creek Linear Park. The Linear Park concept includes the removal of Biggio Drive as a general vehicular route and parking location in favor of narrower cross section that will serve as a pedestrian, bicycle, service and emergency connector. Removal of the street will facilitate the restoration of the creek corridor and allow the cross section to be reconfigured. Connectivity improvements include those along S. Donahue Drive to further enhance Tiger Walk as part of the culture and tradition of the campus.
1. Nichols
2. West Village
3. Wallace
4. Village Plaza
5. Student Center
6. Stadium Green
7. Parking
8. Aquatics Center
9. SLC
10. Intramural Fields
Recreation and Athletics District Facilities
The Recreation and Athletics District and the adjacent Central Campus include the major sporting venues of the campus concentrated at the intersection of South Donahue and Roosevelt Drive. Proposed new facilities in the district include a new student fitness and recreation center which is located to the north of the existing Martin Aquatics Center. The facility is envisioned as a new social amenity for the entire campus.

With the removal of Beard-Eaves Memorial Coliseum upon completion of the new basketball arena, additional practice fields are proposed to serve either the recreation or athletics programs. Removal of the Coliseum also frees up land for a significant new recreation or sport facility.

South Campus
The South Campus encompasses the area bounded by West Samford to the north, South College on the east, Lem Morrison on the south and Duncan Forest on the west. It incorporates the existing Hill Dorms, the landscape of the President’s House, the arboretum and land currently occupied by a USDA facility on South Donahue.
1. Dining
2. West Village
3. SAC
4. Fitness Center
5. Aquatics
6. Rec Fields
7. Future
8. Intramural Fields

Recreation and Athletics District
The South Campus is envisioned a mixed-use extension of the academic core of the campus. Given its distance from core undergraduate facilities, it is considered to be a location for graduate level academic and research facilities. Users of such buildings are less likely to need a location within the ten minute class change area. The South Campus currently includes Forestry and Wildlife Sciences, the University Medical Clinic, and Poultry Science, and has been identified as the site for a new Office of Information Technology facility. South Campus is located along the southern limit of the Core Campus Growth Boundary.

**South Campus Design Framework**

The proposed design framework for the South Campus integrates the Hill Dorms and proposed housing west of Duncan Drive with the South Quad. Further, it integrates the forested character of the South Campus area into the overall design expression.

The existing Hill Dorm area is re-purposed in the 2007 Update as the freshmen housing district. To that end, several improvements are proposed including the removal of parking within the existing quads to create passive recreation areas. A new dining / student commons facility is proposed to replace Burton Hall and the existing Terrell Dining Hall. It will include a passive recreation mall, which will serve to link the facility with the South Quad area.

The South Quad, a proposed academic and research area, is defined by future buildings on the north, east and south and by existing and proposed woodland on the west. The formal landscape of the quad is viewed as the junction point between the Duncan Drive Forest to the west and the Arboretum to the east. The intent is to create a new district that accommodates growth while expressing the existing forested character of the South Campus. The notion of creating a campus in the woods is a design expression which is intended to complement the School of Forestry and Wildlife Studies.

**South Campus Connectivity**

The South Campus is connected to the Central Campus via improvements to the Hill Dorm area pedestrian network, ultimately linking with the southern extension of Haley Concourse at W. Samford. South Campus is connected to the Arboretum on the east and the Duncan Drive Forest to the west via the proposed changes to the landscape corridor along PO Davis Drive. The PO Davis corridor is envisioned to include pedestrian routes and a forest-like planting pattern. The proposed redesign for PO Davis will require the removal of parking on the south side of the Hill Dorms and a narrowing of the street.
South Campus Facilities
As part of the University’s emerging housing strategy, the Hill Dorms will be renovated as the future freshmen housing district. The intent is to create a locus for the freshmen experience at Auburn. The renovated complex will be the subject of a detailed feasibility study. At the planning level, the proposals include removal of the parking from the existing quadrangles to create spaces for passive recreation and programmed events. Architectural recommendations for the Hill Dorms include additions to the corners of the existing buildings to connect buildings, provide vertical circulation, and provide social amenity and study spaces. The additions are envisioned as highly transparent “beacons” that concentrate student activity and serve to enliven the Hill Dorm area. The additions are seen as more economical strategies for providing elevators and other amenities in the existing structures. Terrell Hall is targeted for demolition and replacement in order to provide better dining facilities and to create a student support and amenity location in the South Campus area. The intent is to provide facilities that will enhance the freshmen experience and serve the population of the South Campus.

Facilities proposed for the South Quad include the Office of Information Technology (OIT) Facility and a Parking Garage. The OIT Facility is located to the south near Lem Morrison Drive on the existing parking lots. It will ultimately define the southern edge of the proposed South Quad. The proposed parking garage is located on Duncan Drive extension and is intended to consolidate the existing surface parking in the area and provide for future parking needs in the South Campus area.

South Campus Additional Capacity
The South Campus has considerable additional capacity. Academic and research expansion potential is in the range of 150,000 gsf arranged around the proposed South Quad.

The housing expansion potential is estimated to be in the range of 1,200 units in a series of new “Auburn Quads” on the site of the horticulture and USDA facilities located south of W. Samford between Duncan Drive and S. Donahue. The USDA site is not owned by the University at this time but is on target for acquisition. The proposed residential area is connected to the existing Hill Dorms via western pedestrian extensions and to the north via a new pedestrian spine that links the quads with the redevelopment site north of W. Samford and beyond to the Parkerson Mill Creek Linear Park.

North Campus
The North Campus is defined as the area encompassed by West Magnolia on the north, South College on the east, West Thach on the south and S. Donahue on the west. It includes the Samford Administration Building, the existing Foy Student Union, the major facilities of the College of Engineering, the Lowder Business School and the
North Campus

1. Future
2. Lowder
3. Lowder Lawn
4. Textile
5. Tilghman
6. Wilmore
7. Ross
8. Foy
9. Wilmore Lawn
10. Samford
11. Parking
Schools of Pharmacy and Nursing. The North Campus is the most densely developed and populated area of the campus.

Since the completion of the 2002 Plan, the Transportation Technology Center (TTC) or Shelby Center has been constructed on the alignment of Duncan Drive. This impressive new facility will transform the North Campus, creating a new landmark that addresses the image of the campus on West Magnolia and along the Duncan Drive alignment.

**North Campus Design Framework**

The design vision and framework for the North Campus builds upon the previous planning studies for the Engineering Precinct and the 2002 Plan, and provides linkages to Foy Square, one of the signature landscapes of the campus. The park-like environment extending along South College from West Magnolia to West Thach is preserved in the 2007 Plan Update as the foreground to the iconic architecture of Samford Hall and the other buildings along this important public edge. Pedestrian connectivity and the creation of several new quads are the focus of the framework. The new quadrangles are intended to provide a better organizational structure for the North Campus and to provide amenities for the student, faculty and staff population. The new quads are defined by:

- The Shelby Center, which includes a formal open space on axis with the Duncan Drive alignment – an open space that ultimately will be flanked by four new buildings;
- Lowder Lawn, located on the existing surface parking lot south of the Lowder Business Building;
- A new lawn area to the west of the Aerospace Engineering (replaces existing surface parking).
- Interstitial quads framed by replacement buildings on sites currently occupied by the “L” buildings.

**North Campus Connectivity**

In addition to the existing and proposed landscape spaces, the pedestrian routes through the North Campus are designed as part of the landscape and pedestrian circulation framework. In general, each route is to feature shade trees trellises and other structures that will improve the pedestrian experience. Major pedestrian improvements include:

- The pedestrianization of Duncan Drive between West Magnolia and West Thach Walk. This pedestrian corridor serves as the organizing axis for the Shelby Center and provides linkages to the Student Center and West Thach Walk.
- North Walk, an east/west pedestrian route, is proposed directly south of the Lowder Building to connect this important classroom facility to the commuter parking areas to the west and to the Shelby Center to the east. This route will extend further east when Dunstan Hall and the "L" Buildings are removed for future development. Ultimately, this route will extend from Ross Hall to S. Donahue.

- Haley Concourse is extended in the Plan to intersect with West Magnolia. As part of the effort to encourage more people to walk, Haley Concourse is envisioned as a pedestrian gateway for students living north of the campus.

**North Campus Facilities**

At this writing, Phase 1 of the 200,000 gsf Shelby Center was nearing completion, a facility that is expected to meet the space needs of the College of Engineering for the foreseeable future. With the completion of the building, several facilities may be targeted for demolition including the L buildings.

A new parking garage is proposed on the site of the existing "L" buildings and Dunstan Hall. The garage will be accessed on the east and west via service routes connecting with West Magnolia. Chiller One, will be incorporated into the garage.

The Foy Student Union will also need to be considered upon completion of the new Student Center. In the short-term, the University intends to use this facility as swing space during a number of building renovations planned across the campus. The Master Plan calls for the demolition of the 1970s addition to Foy while maintaining the original 1950s building.

**North Campus Additional Capacity**

The 2007 Campus Plan Update designates the North Campus as a zone of infill and redevelopment. Several under-performing buildings and vacant sites are proposed for development at such time that programmatic need is identified. These include:

- Food Warehouse – this structure located on South Donahue will be demolished for future academic and support facilities on this important gateway site to the campus.

- Lowder parking lots – over the long-term, the aim is to provide a more appropriate campus setting for the Lowder Business Building by removing the existing surface parking lots. The intent is to provide a new quad and to improve the pedestrian connections to the academic core to the south.
ARCHITECTURAL DESIGN GUIDANCE

Architectural design at Auburn University is guided by the Character and Image study commissioned by the Board of Trustees. The study defined a traditional approach to building design utilizing the characteristic red brick of the campus with limestone or white ascents. Sloped hipped roofs are the preferred roof forms.

The 2007 Master Plan suggests that LEED design criteria serve as an overlay to the design guidance of the board. The University should aim for Silver level certification for all future buildings in line with the sustainability objectives of the Master Plan. LEED provides a complete framework for assessing building performance and meeting sustainability goals and should be a goal parallel to the 2007 Update.

Further to the guidance provided in LEED, the following general design recommendations should be considered by the University:

• Install interior light shelves on north-facing facades to amplify natural light distribution within the building.

• Design deep recesses in buildings with south-facing facades to shade interior spaces and reduce heat gain.

• Orient buildings on the east/west axis to the degree possible. Where north/south buildings are necessary for urban design or planning issues, the east and west facades of the buildings should be limited to two stories or external shading devices should be utilized. Trees and trellises should be utilized for shading east and west facades.

• Utilize passive and active solar applications such as building-integrated photovoltaics or solar hot watersystems to reduce the demand for conventional sources of energy.

• Utilize white or cool roofs on flat roof buildings. Alternatively, green roofs should be considered to reduce heat gain and stormwater runoff.
INTRODUCTION

The Master Plan for the College of Veterinary Medicine (CVM) provides a framework for incremental change and improvement of the CVM campus over the next 10 to 15 years. It is coordinated with the Auburn campus Vision as developed during the planning process for the 2007 Campus Plan Update—a vision based on a number of sustainable design principles that will assist the University in creating a stronger, more vibrant community, reducing energy consumption, preserving water resources and natural systems, enhancing transportation, and maintaining both the village and rural characters of the campus.

The Vision adds significant new dimensions to Auburn’s campus Master Plan:

- Preserving the Land Grant Legacy – The Campus Plan Update addresses the entirety of the contiguous campus holdings, including the outlying agricultural and pasture lands that are important to the land grant legacy and current mission. It clearly defines the way in which the tributary stream systems, woodlands and agricultural lands function both as an environmental reserve and as the natural connective tissue that ties the entire campus together.

- Adopting an Ethic of Sustainability – An overarching goal of the 2007 Campus Plan Update is to help the University reposition the campus as an achievable model of sustainability. The land development and preservation patterns embodied in the Plan are aimed at creating a more sustainable campus environment by limiting sprawl, utilizing existing infrastructure and utilities more efficiently, and creating a pedestrian-oriented environment.
Maintaining a Constellation of “Villages” – Complementary to the outlying lands, the Campus Plan Update defines the development areas of the campus as a series of villages, each functionally self-contained, but also well connected by the circulation and natural systems networks of the campus. The “village” analogy reflects, in part, the value that Auburn places on its namesake tradition as the “Loveliest Village.” As an element of the physical plan, the village analogy emphasizes the important goal of maintaining compact areas of development that can be both functionally efficient and conducive to creating the sense of community that is so valued by Auburn. By containing major areas of development in defined village districts, infrastructure costs will be contained, transportation demand can be dampened, functional relationships between uses in the districts are strengthened, and the climate for interaction among the inhabitants can be vastly improved.
Further, Auburn’s unique natural and agricultural domain is spared from ad hoc campus sprawl. To that end, the Plan defines the central core and the outlying villages by means of growth boundaries. The boundaries are established based on current land use patterns and the extent and capacity of existing infrastructure.

The proposed growth boundaries ensure that future development is concentrated in areas where the University has invested in infrastructure and areas where a pedestrian scale environment can be facilitated. The growth boundary for the academic core is intended to focus future development on available sites within the core and limit the need to encroach upon the forested and agricultural lands of the campus.
proposed growth boundaries emphasize land stewardship as a key consideration in the Master Plan.

The CVM campus has been designated as one of three development areas outside the established academic core of the campus. The other areas include the Auburn Research Park and the University Art Museum. The Master Plan provides a framework of open space, landscape, circulation and development sites within each of the development areas that can accommodate the future facility needs in a logical and coordinated manner.

The Master Plan for the CVM campus concentrates future facilities and redevelopment opportunities adjacent to existing buildings. The intent is to link future facilities into the campus such that a pedestrian-scaled environment emerges and such that the outlying pasture land and wooded areas can be preserved.

**Planning Process**

The planning process leading to the development of the CVM Master Plan commenced in October, 2005, and included three phases: inventory and analysis, concept development and Master Plan documentation.

During late 2005 and early 2006, the CVM Master Plan Resource Team identified the key planning issues, programmatic needs and aspirations of the College. The needs and goals outlined throughout this document draw from the meetings held with the CVM Resource Team and various stakeholders. Preliminary Master Plan recommendations were presented at the CVM Faculty Retreat on August 1st and 2nd, 2006. The purpose of the retreat was to develop the strategic goals needed to guide the activities of the College for the next 5-10 years. The outcomes of the retreat are being used to finalize the strategic plan for the College.

The following meetings were held during the planning process:

- October 19, 2005 CVM Resource Team Meeting
- December 16, 2005 CVM Resource Team Meeting
- February 7, 2006 CVM Resource Team Meeting
- May 3, 2006 CVM Resource Team Meeting
- August 1-2, 2006 CVM Faculty Retreat
- May 3, 2007 CVM Resource Team Meeting
EXISTING CONDITIONS

Currently, the CVM has 360 professional degree students and 55 graduate students for a total of 415 students. CVM receives over six million dollars in funding toward extramural research, and is home to the region’s leading Veterinary Teaching Hospital. The College has over 100 faculty and staff members who focus on teaching, research, and outreach.

Existing Facilities:
The existing CVM facilities have been developed over a period of approximately 40 years and include academic, research and support buildings. The following summarizes the major issues / considerations noted during the planning process with regard to the major facilities of the CVM campus:

- Vaughan Large Animal Hospital
- Bartlett Arena
- Scott Ritchey Research Center
- Ware Imaging Center
- McAdory
- Hoerlein Hall
- Overton-Goodwin Student Center
- Greene Hall
- Raptor Center
- State Diagnostic Lab
• **Greene Hall**: Greene Hall is a two-story building with a basement and a sub-basement and a total of 123,000 square feet. Constructed in 1971, Greene Hall is the primary academic and administrative building on the CVM campus. It includes classrooms and basic science research facilities as well as office space. Students spend a majority of their first three years in the building.

• **McAdory Hall**: McAdory is an aging facility with significant infrastructure problems as evidenced by persistent temperature control problems. It contains three (3) auditorium classrooms. CVM is considering taking the building off-line in the next three to five years.

• **Overton-Goodwin Center**: Overton-Goodwin serves as the “commons” and student center for the CVM campus. The building includes lounges, a cafeteria and student support offices.

• **Scott Ritchey**: The Scott Ritchey facility is supported by an endowment for Research on Disease of Companion Animals. The facility contains lab quarters for 3,000 animals, including mice and fish. Constructed in 1979, this two story facility contains 42,000 square feet. Although a destination for many visitors, it has no obvious public entrance.

• **Large Animal Facilities**: The Large Animal Facilities accommodate beef and dairy cattle, and 30-50 horses. The Large Animal facilities are the newest on the CVM campus and are considered to be the most positive architectural statement.

• **Sugg Lab**: The Sugg Lab Building was constructed in the early 1960’s and will only meet needs for 5-10 more years.

**Land Issues:**
During the analysis process, the entire 300 acre CVM campus was analyzed in terms of land use, topography, hydrology, tree cover, and circulation. The following findings are noted:

• The land use pattern of the campus is defined by the major academic, administrative and support facilities located nearest Wire Road, and the pasture lands, the raptor center and a calf farm further to the west.

• A creek runs north to south through the CVM pasture areas. Currently there is no protection buffer in place along the stream and, in some areas, vegetation along the banks of the stream has been removed. Wetlands are located on University Drive, south of the CVM campus and in wooded area to the northwest of the student parking area.
Security Issues
- Security is a key concern for the CVM. At present, card access systems are utilized on high security buildings. A perimeter fence is in place to limit auto access to the west side of the main academic/research buildings, however, the security gates are not utilized.

Circulation Issues
- Currently, there are three entrances to the CVM campus from Wire Road. Along the public edge of the campus (Wire Road), vehicular circulation is physically divided into two areas north to south:
  1) traffic associated with Greene Hall and the Small Animal Teaching Hospital; and, 2) traffic associated with the Large Animal Hospital. Vehicular circulation is deliberately disconnected between these areas.

- A secure zone has been established on the CVM campus to the north west of the major buildings. Access to the zone is currently open; however, gates are in place to provide security, if required.

Parking
- Currently, the CVM campus includes 660 parking spaces. The overall supply of parking is considered to be adequate to serve existing demand; however, parking is not always available where users are concentrated.

- Visitor Parking is a key consideration on the campus. There are approximately 13,000 small animal patients and 1,000-1,500 large animal patients annually. The large animal patients arrive in trailers and require adequate turning and maneuvering area.
COLLEGE OF VETERINARY MEDICINE PROGRAMMATIC NEEDS:

The CVM Master Plan is designed to accommodate the programmatic needs identified during the planning and consultation process with the CVM Resource team. The following summarizes the major findings.

Enrollment

In the past five years, funding for CVM grew by approximately five percent per year. In the next five to seven years, CVM estimates growth in the range of 30 percent. Based on these projections, an estimated 540 students will need to be accommodated on the CVM campus in five to seven years assuming both the professional degree and graduate enrollment increase by 30 percent. This projected growth will place significant demands on the existing facilities of the 300 acre campus.

While the strategy for accommodating the enrollment increase has yet to be determined, it is anticipated that additional classroom space, faculty office space and parking will be required. The ongoing strategic planning effort within the College will determine how this potential growth will be accommodated. It will also provide guidance on the number of new faculty, as well as changes to the curriculum and research activities. Based on current student / faculty ratios, this could result in additional 29-30 faculty members.

For the purposes of the Master Plan, it is assumed that enrollment will increase to approximately 540 students and the faculty headcount will increase to 130. Staff headcounts are also assumed to increase as well.

Facility Needs

Consultation with the CVM Resource Team revealed the need for several new facilities to support the academic and research mission. These include:

Small Animal Hospital

Small Animal/Radiology Veterinary Teaching Hospital (SAR-VTH)

Currently, Hoerlein Hall serves as the teaching hospital for small animal surgery and medicine. The two-story 50,000 square foot facility was constructed in 1970 and expanded in 1989. The CVM Resource Team noted a need to expand Hoerlein Hall while preserving the “feel” of the campus. It was suggested that CVM is aiming to secure an $8–10 million dollar gift for this facility. The proposed new facility is programmed for 78,000 gross square feet.
The following potential uses are noted for the proposed facility:

- A biocontainment facility (BSL-3) with laboratories and animal holding capacity.
- Radiology Veterinary Teaching facilities (SAR-VTH)
- Adequate space for senior student clinical rotations.
- Improved client flow through reception and discharge areas.
- Anticipated increase in class size from 90 to 120 students.
- Change in curriculum to increase exposure to clinics for students in their first three years.
- Increased services offered to clients and opportunities for referrals.
- Additional research laboratories in existing Hoerlein Hall
Basic Sciences Research Building

Currently there are two buildings at CVM which accommodate Basic Sciences Research: Greene Hall and the Scott Ritchey Research Center. The CVM is planning a new 50,000 gross square foot research building.

Several criteria are provided for the new research building:

- Proximity to existing lab animal facilities.
- Additional space for long-term growth
- Limited entry points with an effective security system
- Desired proximity to student parking
- Flexibility to support other AU disciplines as cross-discipline collaboration occurs.
- Potential Biocontainment Safety Level 3 (BSL-3) laboratory facilities.

Potential Biocontainment Safety Level 3 Facility (Transgenic Lab)

Biosafety Research would enable CVM to conduct research on infectious agents, and possibly secure funding from NIH and Homeland Security, as well as grants from the Centers for Disease Control. Such a facility would allow Auburn to compete more effectively with other veterinary colleges. There is a need for a bio-containment facility with laboratories and animal holding facilities.

For the purposes of the Master Plan, it is assumed that a modular, self-contained unit or units would be purchased and located on the campus. Modular units allow flexibility in terms of modification and placement. They are also more affordable in that the complex mechanical and safety features do not need to be coordinated with the systems of a building.

Additional Large Class Room Space

The projected growth in the CVM will require additional large classroom / auditoria space to accommodate the anticipated enrollment increase. Two-to-three additional classrooms will be required to supplement the facilities in Greene Hall.

Program Summary

<table>
<thead>
<tr>
<th>Program</th>
<th>Space (GSF)</th>
</tr>
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<tr>
<td>Basic Science</td>
<td>50,000</td>
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<tr>
<td>Greene Hall Addition - 3</td>
<td>25,000</td>
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<tr>
<td>auditoriums</td>
<td></td>
</tr>
<tr>
<td>Small Animal Hospital</td>
<td>78,000</td>
</tr>
</tbody>
</table>
Potential Demolition

Three buildings are identified in the Master Plan for demolition due to the condition and issues associated with adapting the buildings for contemporary needs:

- McAdory Hall, the former Large Animal Hospital, will be taken offline in 3-5 years. Prior to commencing the Master Planning process, the site of McAdory had been considered for the site of the proposed Small Animal Teaching Hospital.

- Greene Hall, the main academic and administrative building of the College, is targeted for replacement in the next 5-10 years. Greene Hall presents the most significant challenge in terms of replacement. The facility occupies a key site at the center of the campus and is surrounded by and connected to buildings on the south and west. A workable phasing strategy and alternative / temporary facilities will need to be developed prior to demolition.
Sugg Laboratory will be taken offline in 5–10 years.

Several outdated single story support outbuildings to the north are proposed for demolition as appropriate or as the sites are needed for new development.

**Circulation and Connectivity Needs**

During the planning process, several connectivity issues and needs were noted:

**CVM / Community-Campus Interface**

The CVM campus is visited by members of the regional agricultural community and general public on a regular basis. Public visitation occurs regularly in the following facilities: Overton-Goodwin, Scott Ritchey, Greene Hall, the Large Animal Hospital, and the Small Animal Hospital. Enhancing the visibility of the entries to these facilities is noted to be of concern. In particular, the entry for Scott Ritchey will need to be enhanced given that the public entry to the building is located within the operational secure zone to the west of the main buildings. The facility would be more accessible if an entrance from the east side of the campus could be provided.

**New Links Between CVM and the Campus Core**

Because CVM is located approximately two miles southwest of Auburn’s core campus, it remains isolated from daily campus life. The CVM depends on a strong connection with other academic disciplines, between undergraduate and graduate campus activity, and with the larger campus connectivity. To that end, the following connectivity and transit service enhancements were identified during the planning process.

- **Transit** - Re-route Tiger Transit routes to serve a proposed stop at the Overton-Goodwin Student Center. Tiger Transit currently operates two bus routes that pass the CVM campus: the Purple Line and the Gold Line. Only the Purple Line stops near Greene Hall and it operates from 7 am to 6 pm. Neither of the current routes circulates through the CVM campus or directly in front of either Greene Hall or the Overton-Goodwin Student Center.

- Create an off-road bike path along Wire Road to serve CVM students traveling to and from the core campus. This proposal is consistent with the City of Auburn’s comprehensive bicycle network plan.

- Enhance the walkability of the CVM campus by improving existing pedestrian paths with shade trees and include new pedestrian routes.

**Parking**

Currently, 660 parking spaces are provided on the CVM campus which is adequate for the current parking demand; however, some of the parking areas are considered to be inconvenient and remote. In particular, the areas to the southwest of the Large Animal Hospital fall into this category.
CVM MASTER PLAN

The CVM Master Plan provides a framework for the future development and redevelopment of the CVM campus. It extends beyond the existing developed areas of the CVM campus and provides guidance for the existing pasture land, tree cover and stream corridors. The framework also establishes a development boundary within the CVM campus to contain future development within the area currently served by infrastructure. The goal is to create a compact development pattern that facilitates pedestrian movement and that limits encroachment on the existing pasture lands and wooded areas. Infill development will be accommodated on previously developed sites, demolishing buildings where appropriate.

Within the established developed area, the framework is informed by the existing pedestrian circulation network and building locations. Specifically, the interior and exterior pedestrian routes through the campus inform the placement and layout of the proposed facilities and inform the redevelopment strategy for the campus. The aim is to locate new buildings along the major pedestrian routes and improve the interior/exterior pedestrian movement through the campus.

The Master Plan framework provides guidance for land use, landscape and circulation throughout the campus. It is based on the findings and conclusions of the analysis of the existing conditions relative to land use, topography, hydrology, tree cover and circulation.

The Master Plan goals are to:

- Accommodate new space or the reconfiguration of existing spaces/structures to support the growth of the teaching and research mission of the College.
- Facilitate pedestrian connectivity on the CVM campus
- Improve campus life and the student experience
- Improve the public image of the CVM facilities
- Increase the overall capacity for basic sciences
- Strengthen the campus-community interface
1. Vaughan Large Animal Hospital
2. Bartlett Arena
3. Ware Imaging Center
4. Scott Ritchey Research Center
5. Hoerlein Hall
6. Greene Hall
7. Overton-Goodwin Student Center
8. Proposed Small Animal Teaching Hospital
9. Greene Hall Addition
10. Proposed Research Building
11. Raptor Center
12. Diagnostic Lab
13. Biocontainment Modules

The College of Veterinary Medicine Master Plan
Land Use Framework

Within the developed area of the CVM campus, the locations for the major new facilities are identified in the land use framework as follows:

Small Animal Teaching Hospital (SATH) - The SATH is located on the site of the existing McAdory Hall, which will be demolished. The proposed L-shaped building will accommodate the required 78,000 square feet in a two-story configuration. The preliminary concept for the building is informed by the architectural vocabulary of the adjacent Large Animal Hospital and Horse Pavilion. A covered walk-way with a green metal roof is proposed to unify the building detailing with the features of the Large Animal Hospital.

Redevelopment of the McAdory site also provides an opportunity to improve the entrance into Scott Ritchey by creating a public access from the south public zone of the campus. The recommendation is to create a connector space between Hoerlein Hall and the proposed Small Animal Teaching Hospital (north end of the existing McAdory). This connector space is envisioned as an atrium through which access could be provided to the lobby of Scott Ritchey, Small Animal Teaching Hospital and Hoerlein Hall. This proposal will require the reconfiguration of existing spaces in Hoerlein and Scott Ritchey in order to provide more direct circulation to the lobby / reception area of the building. Public access to the connector will be via the proposed courtyard east of Hoerlein Hall.

The Research Building has been sited to the north of Greene Hall, partially within the existing parking area. The site was selected in support of the Master Planning strategy to create a new public image of the College when viewed from Wire Road. The new building will be connected to Greene Hall via covered walkways and will allow for convenient access to the existing animal lab facilities. The area between the proposed building and Greene Hall is transformed in the Master Plan by courtyard / garden space.

Greene Hall Classroom and Office space addition – to provide additional office and classroom space to serve the projected enrollment, and to improve the character and image of Greene Hall, a classroom / auditorium addition is proposed along the east side of the existing building. The addition will extend the library wing of Greene Hall to the south and includes the potential for providing second floor office space or other support facilities. The intent is to locate the classrooms on the public edge of the campus with direct access to the student center. The aim is to create an active learning and social node in the campus environment. The addition includes 25,000 sf and will accommodate three (3) auditoria.
The east side of the addition is defined by a covered walkway extending the full length of the building. The covered walk is inspired by the shed-like green roofs of the Large Animal Hospital, which is considered by many to be the most attractive building on the CVM campus. The covered walk will ultimately link Overton / Goodwin to the proposed Research Building, which has been sited to the north of Greene Hall.

**Pasture Lands and Wooded Areas**

Beyond the developed core of the CVM campus, the Master Plan framework calls for:

- Maintaining the existing pasture land for existing and future needs;
- Preserving existing wooded areas and tree cover;
- The existing pasture lands are important to the mission and operation of CVM and are maintained in the Master Plan for existing and future needs. Proposed development is focused within the developed area on vacant or previously developed sites. The goal is to prevent the gradual expansion of the campus facilities onto the valuable pasture land and to avoid further disruption to the natural systems of the campus.
- Existing wood land and tree cover is preserved where possible in the Plan. The wooded areas perform important water and air quality functions and are assumed to serve as habitats areas. (Note, no known documentation exists with regard to the habitats on the CVM campus).
A 100 foot protection buffer is proposed along the existing stream as part of a strategy to improve water quality and prevent downstream erosion. The stream protection buffer establishes an area for replanting and reforestation, and designates a zone where livestock will not be permitted.

**Landscape Framework**

The Landscape Framework of the Master Plan is coordinated with the larger land use objectives of the entire campus to preserve existing pasture land and wooded areas and provide specific recommendations for improving the landscape along the roadways and pedestrian routes of the campus.

Recommendations within the developed area call for additional street trees along the pedestrian routes, and along major public roadways. The goal is to improve the overall appearance of the campus and to provide shade.

1. **Hoerlein Courtyard**

Currently, the CVM campus lacks a central and shaded open space that functions as a gathering area for students, faculty and staff. To that end, the Master Plan includes recommendations for creating a courtyard east of Hoerlein Hall. By removing the parking lot, which currently provides access to vehicular drop-off point. The proposed strategy is to remove the existing parking with the exception of the required accessible spaces. The courtyard will be defined by the new Small Animal Teaching Hospital,
2. North courtyard
A second courtyard is proposed between Greene Hall and the proposed Research Building. The courtyard will allow light and air to reach the north side of Greene Hall and the south side of the proposed Research building. It is envisioned as more of a garden than a paved activity space. Fire access will need to be maintained through the courtyard.

3. Parking Lot Landscape
The Master Plan introduces and reconfigures several parking areas on the CVM campus. In support of the sustainability goals of the Master Plan, bioswales and pervious paving should be considered. Bioswales would be located between parking bays and would treat stormwater, allowing it to infiltrate the soil slowly. The bioswales would contain appropriate plant material and possibly shade trees. This recommendation
is contingent on a detailed analysis of soil and hydrological conditions, as well as appropriate plant material, in the design phase.

**Campus Access**

Campus access is addressed in the Master Plan at four levels: pedestrian, bicycle, transit and vehicular.

Pedestrian Access – the landscape and circulation proposals for the CVM campus focus on improving the existing pedestrian network, both interior and exterior, and extending the network to encompass proposed and future buildings. The aim is to create a pedestrian friendly campus and thereby encourage more chance interaction and social engagement among the faculty, staff and students of the CVM.

Key recommendations include:

- A covered walkway along the Wire Road façade of Greene Hall which ultimately will link Overton-Goodwin to the new Research Building.

- A covered walkway along the east and north sides of the Small Animal Teaching Hospital to provided a shaded connection toward the Large Animal Hospital and along the proposed Hoerlein courtyard.

Covered walkways between the proposed Research Building and Greene Hall.

Bicycle Circulation – the City of Auburn’s bicycle network plan calls for the creation of a route along the west edge of Wire Road. When constructed, this route will link the CVM campus with the main academic core of Auburn to the north and the residential areas to the south, where many CVM students live. As the route is completed, links should be provided connecting with the internal roads of the CVM campus. Over the long-term access could be provided to a route proposed along Parkerson Mill Creek, to the east of Wire Road.

Transit – transit connections are proposed to more effectively and conveniently link the CVM campus to the academic core. Currently, the campus is not well served by Tiger Transit Services. The Master Plan reconfigures the internal circulation along Wire Road to facilitate access to bus stops directly adjacent to the existing buildings of the campus. Specifically, the major transit hub for the CVM campus is proposed along the Greene Hall addition, adjacent to Overton-Goodwin.

Vehicular Circulation – the proposed circulation pattern for the campus maintains the zones currently identified on the campus. Public access along Wire Road to the Large Animal Hospital and the Small Animal Teaching Hospital areas remains segregated. The
intent is to separate the large vehicles and trailers associated with visitors to the Large Animal Hospital. Vehicular circulation on the Small Animal Hospital side of the campus is reorganized in the Master Plan to facilitate access to the proposed new facilities and to provide access to new and reconfigured parking areas.

Roadways to the “back-of-house” functions and the secure zone of the CVM campus will remain in the Master Plan. Existing gateways will be maintained and improved to ensure adequate security.

Parking
The Master Plan maintains the current supply of parking on the CVM campus at 660 spaces and provides for an additional 200 spaces to support the projected increase in enrollment. The proposed location is to the southwest of the Large Animal Hospital. As this parking would displace pasture land, it should be provided only if absolutely necessary. Prior to constructing additional parking, the College should explore strategies for decreasing parking demand.

The proposed Master Plan results in changes to the current layout and configuration of the parking areas on the CVM campus. The following changes are necessary:

- The student parking lot northwest of Greene Hall is reconfigured to accommodate the proposed Research Building.
1. Vaughan Large Animal Hospital
2. Bartlett Arena
3. Ware Imaging Center
4. Scott Ritchey Research Center
5. Hoerlein Hall
6. Greene Hall
7. Overton-Goodwin Student Center
8. Proposed Small Animal Teaching Hospital
9. Greene Hall Addition
10. Proposed Research Building
11. Raptor Center
12. Diagnostic Lab
13. Biocontainment Modules
• A new 96 space parking lot is proposed southeast of Greene Hall to replace parking removed to accommodate an addition to the building and to reconfigure the vehicular circulation patterns.

• A new 44 space visitor parking lot is proposed to the southeast of the proposed Small Animal Teaching Hospital.

As is currently the case, it is not possible to provide the desired amount of parking directly adjacent to the major activity areas of the campus. Management and communication strategies will need to be utilized to inform users of all parking areas on the campus.

**Visitor Parking**

Public use and presence will occur regularly in the following facilities:

• Overton-Goodwin

• Scott Ritchey

• Large Animal Hospital

• Small Animal Hospital

To facilitate public access, visitor parking is provided to the east of the proposed Small Animal Teaching Hospital and Large Animal Hospital.

**Campus Security**

Security is addressed at the Master Plan level by maintaining and reinforcing the current visitor and secure access zones of the campus.

**Visitor Access Zone**

Visitor access is provided on the Wire Road or eastern edge of the campus, where visitor parking and the major entrances to the buildings are located. At this writing, it is understood that visitor access will be provided to Greene Hall, Overton-Goodwin, and the Large Animal Hospital, and the Small Animal Teaching Hospital. Visitor access to Scott Richey is proposed via the Hoerlin Courtyard connector. Consideration will need to be visitor access to Hoerlin and the proposed research building.

**Limited Access Zone**

The secure zone of the campus is located northwest of Greene and Hoerlin. The Master Plan maintains the existing gateways to the zone which are located west of Greene Hall and to the north and south of the Large Animal Hospital.
The Auburn University Comprehensive Campus Master Plan (the Master Plan) is a dynamic tool that shapes campus development, monitors change and undergirds the process of project site selection, design and implementation. To fulfill the charge, the following recommendations describe procedures for the administration and maintenance of the Master Plan and for the design review process intended to make the Master Plan a continuing and renewable endeavor.

**CONTINUING ADMINISTRATION AND MAINTENANCE OF THE MASTER PLAN**

Continuing Administration and Maintenance of the Master Plan sets forth the procedures for carrying out and updating the plan, implementing the plan and reviewing projects and changes in the context of the plan under the auspices of a Master Plan Committee. The procedures are intended to guide the development of similar statements which respond specifically to the context of the standing policies and organizational structure of Auburn University.

**The Master Plan Committee**

The University will establish a Master Plan Committee (MPC) advisory to the President on matters pertaining to facilities, property planning and site development activities. The MPC shall consist of the following members:
The fundamental charge of the Committee will be to oversee the continuing administration, maintenance and implementation of the MPC.

The MPC shall formulate / adopt institutional plans and guidelines and keep them current. The MPC shall review development of all land holdings of Auburn University and make recommendations regarding facilities, planning, transportation planning, land planning, infrastructure and site development activities. The MPC shall advise the President of proposed changes and updates to all Auburn University master plans and supporting documents, including design guidelines, The Image and Character of Auburn University and the Auburn University Comprehensive Campus Master Plan.

The MPC shall review all development, including landscape, roadway, parking and site projects, for compliance with the provisions, guidelines and intent of the Master Plan on the main campus and the contiguous agricultural land. Planning issues associated with development projects on detached University land holdings such as the Airport, North Auburn and the Alabama Agriculture Experiment Station sites will also be subject to review by the Committee on a case-by-case basis as determined by the Office of Campus Planning and Space Management.

**Comprehensive Campus Master Plan Review and Updates**

The MPC will periodically review the status of land and facilities program development on the campus. The administrative support for such review will be through the Office of Campus Planning and Space Management. The charge will be to identify trends or the need to change use patterns, density, program affinities or relationships to open space, circulation and utility patterns that might affect the land use plan, and to determine whether such circumstances should be corrected to maintain the integrity of the land use plan or cause the Master Plan to be altered or amended to reflect valid needs.

The MPC will undertake an annual review of the schedule of capital improvements to ensure that the capital improvements are consistent with the land use, density and development factors as described in the Master Plan and district plans, and that such improvements are acknowledged in the periodic review of the Master Plan. The administrative support for such review will be through the Office of Campus Planning and Space Management.
The MPC, acting as a whole or through a designated subcommittee, will overview facilities space planning, space needs analysis, and campus-wide space allocation. This function will be coordinated with other functions of the MPC to ensure that there is a rigorous connection between space allocation, facilities location, and land use/density patterns. Technical coordination among administrative units will be provided by staff assigned to the MPC or subcommittee.

The MPC will assess the site selection of proposed projects by comparing them with the land uses, densities and open space provisions of the Master Plan, verifying the appropriateness of their location and consistency with land use and density provisions. It will be important to coordinate with the Design Review Committee if issues of location, site development and design need to be addressed jointly to achieve better solutions or avoid potential mistakes.

The MPC may direct staff and/or consultants to assess proposed projects in a comprehensive manner that takes into account the suitability of the site and the cumulative consequences of development with regard to on-campus and off-campus development constraints, conflicts or limits vis-à-vis traffic, infrastructure and drainage. Site suitability will address topography, soils conditions, drainage, utilities and infrastructure, vehicular and service access, and program affinities.

The MPC may assess the appropriate use and management of land necessary to guide the careful use of the University’s existing land resources and infrastructure.

The MPC will coordinate the Master Plan with plans and studies for acquisition, disposition and leasing of property within and contiguous to the campus. Such coordination will include:

- An assessment of how such acquisitions, dispositions or leases affect or are affected by the Master Plan with respect to land use, density, open space, traffic, utilities, and other factors bearing on the resources, quality and organization of the campus.

- An assessment of whether such measures may cause the Master Plan to be altered or amended.

- The application, in the case of leases and subleases of campus land to non-University entities, of land use, density, open space and circulation provisions, design guidelines and design procedures set forth in the Master Plan. When the University is considering the lease or use of campus land by non-University entities, a district plan for the area, including the prospective lease area will be prepared, if it does not exist at the time, to ensure that appropriate use density, development and design guidelines will be applied to the lease area.
Periodic Plan Updates and Sub-Studies

Consistent with the intent of the Auburn University Board of Trustees, the Master Plan shall be updated or revisited approximately every five (5) years to reflect internal and external changes that occur in the life of a dynamic institution such as Auburn. The Board of Trustees has ultimate authority for Master Plan adoption. A change in the Master Plan may be initiated by the Board of Trustees or by request of the University’s administration to the Board.

Because the total land area of the campus is extensive and is differentiated in its environments, more detailed area plans may be necessary from time to time to provide a basis for facilities accommodation and campus improvements appropriate to the particular circumstances of each area. The determination of priorities for district or sub-district planning will be based on considerations, including:

- Identification of areas of the campus subject to imminent or substantial changes such as major facilities expansion or alteration, new program initiatives or circulation/infrastructure improvements.

- Identification of areas where land use, density, open space, circulation and civic design factors may have an impact on (or be impacted by) impending external factors such as public infrastructure projects, on-campus real estate initiatives or adjacent neighborhood land use changes.

- Identification of areas where it is deemed suitable or necessary to make area-wide site improvements such as streets, streetscapes, connecting or redefining open spaces, etc.

- Identification of areas for which a district or sub-district plan does not exist or is more than ten years old. This provision applies in particular where a singular project is contemplated, but lacks a contextual framework or guidelines for development due to the lack of a district or sub-district plan.

Project Design Review

Project Design Review consists of a process for the review of specific projects and the establishment of goals, objectives, review criteria and administrative procedures under the auspices of a Design Review Committee. The process is intended to interface with existing University administrative procedures in order to ensure that the recommendations of the Master Plan are faithfully implemented.
Design Review Committee

The University shall establish a Design Review Committee (DRC) advisory to the President on matters pertaining to the design of capital improvement projects, renovations, adaptations, infrastructure and occasionally maintenance. The DRC will consist of the following members:

- The University Architect (Chair) – continuing term
- University Planner (Vice Chair) – continuing term
- University Engineer – continuing term
- Director, Design and Construction – continuing term
- Director, Maintenance and Operations – continuing term
- Four (4) Faculty Appointments – 3-year staggered terms

The fundamental charge of the DRC is to review project designs on behalf of the University to ensure acceptable compliance of those projects with institutional plans, design guidelines, The Image and Character of Auburn University and the Auburn University Comprehensive Campus Master Plan.

The DRC is primarily a review body, not an action body. The DRC may also have secondary, more proactive roles, including making recommendations regarding the need for revisions and refinements of Design Guidelines. The DRC’s review responsibility is the “civic” mission of a project, not its “private” or functional one. This includes review of the project in light of the Master Plan, with emphasis on the quality of public open space and landscape, on architectural form and exterior appearance, on the design of primary interior public spaces, and the relationship and contribution of the project to its immediate surroundings and to the larger campus context.

The DRC shall review project designs and make recommendations regarding acceptable compliance with institutional plans, design guidelines, The Image and Character of Auburn University and the Auburn University Comprehensive Campus Master Plan. Review shall emphasize quality of open space and landscape; architectural form and exterior appearance; primary interior spaces; and the contribution of the project to immediate surroundings and the larger campus and community context. The DRC has the right to review or waive review of any project that impacts the appearance and development of the campus.

At least once a year, the DRC should facilitate a walking tour of the campus, tendering invitations to the President and others, for the purpose of observing progress and change in campus design character.
Project Review Criteria

A review is triggered by any new architectural and/or site development project or any project that affects or changes the public spaces of the University or a building appearance through replacement, repair or restoration. All major landscape projects and building projects will be reviewed. Smaller projects will also be considered for review, although an abbreviated administrative process may be employed. In some cases, these projects may create opportunities to initiate a transformation in the design character of the campus, and should always be evaluated for that potential. The primary criterion that triggers review by the DRC is whether the project affects or changes the indoor and outdoor public spaces and skyline of the University, including building lobbies.

Design Review Procedures

The DRC shall have routine formal meetings with set procedures and an agenda determined by the Chair and the Director of Design and Construction as demanded by project volume and schedule. Projects will be presented to the DRC by the participating Project Committee and the project design team, which might include architects, landscape architects, engineers or other professional consultants. After every project review, clear instructions will be provided to the project design team and also submitted to the President for review. Subsequently, those instructions will be conveyed to the Project Committee and its consultants in writing in a timely manner through the Office of the University Architect. The sequence of actions/reviews will include, but not be limited to, the following:

1. Make available to each design team a complete copy of the Auburn University Comprehensive Campus Master Plan, including relevant design principles and guidelines.
2. Make available to each design team a complete copy of the Image and Character of Auburn University.
3. Require an initial meeting with the architect or designer to clarify the University’s intent.
4. Require formal intermediate and final reviews of the schematic design phase.
5. Require a review near the end of the design phase and, if there are significant changes, there should be equivalent reviews for construction documents.
6. Conduct a post-construction project assessment.

A determination may be made at the outset of the review process that fewer or more review steps may be undertaken if the scale or impact of the project so dictates.
ADMINISTRATIVE INTEGRATION OF DESIGN REVIEW

The success of the DRC and the design review process is predicated on the careful integration of the DRC into the University administration, especially as it relates to campus development and project initiation. The entire development process involves many different individuals and departments whose contributions will be more significant with clear delineation of appropriate roles, responsibilities and interrelationships. It is expected that the University will define the specific roles and relationships of the following parties in the administration of the design review process:

- Design Review Committee
- Facilities Division
- Project Committees
- Architect Selection Committees
- Project Design Consultants
- The Comprehensive Master Plan Committee (MPC)
- The Sustainability Committee
- The University at large, including the Board of Trustees

RELATIONSHIP OF THE COMPREHENSIVE CAMPUS MASTER PLAN TO PROJECT PROGRAMMING, PLANNING, DESIGN AND IMPLEMENTATION

The process is conceived to integrate academic, fiscal and physical planning as a comprehensive means of making sound decisions on the development of campus facilities and improvements. The Master Plan is a contributing resource to University-wide planning, programming and design processes. In summary, the relationship to such processes is as follows:

- For Space and Facility Management, which is the University project needs assessment phase, the Master Plan provides a framework for assessing space and facility needs in a comprehensive sense. The Master Plan elements defining land use, development capacity and organization of the campus can, for example, influence the determination of priorities and sequencing in the identification of needs. The MPC may be a suitable arbiter in discussions about project needs and general space needs.

- For Conceptual Feasibility, which is primarily the project planning phase, the Master Plan provides data and contextual information that contribute to objective analysis of locational and impact factors to be considered in determining conceptual
feasibility. Such factors include land use suitability and compatibility with other uses, program capacity and density, access characteristics, utility characteristics, and other circumstances of location particular to given areas of the campus. The MPC should monitor projects at the conceptual feasibility level.

- For Project Feasibility, which is typically the design phase, the Master Plan provides information with respect to specific site factors such as building placement, massing, service access, pedestrian and open relationships, and other particular circumstances that bear on site planning and design alternatives undertaken to determine project feasibility. Design guidelines, similarly, inform the investigation of site and design alternatives. Early dialog with the DRC may be useful in strengthening the feasibility assessment of projects likely to have a significant impact on (or contribution to) the campus as a whole. Such review may also define the “civic domain” to be encompassed in the project, which will bear on its feasibility.

- For Project Implementation, the Design Guidelines set forth in the MPC provide practical guidance as to the form, massing and site relationships to be incorporated in the specific design of the project. The formal procedure of review by the DRC applies both the monitoring process and the requisite dialog to ensure design quality and civic contribution to the campus environment through the project implementation phase.
The Analysis conducted in the development of the 2007 Campus Master Plan Update records some of the base data and information for consideration relative to the physical planning process and in support of the focus on sustainability.

The analysis information provided herein represents an initial effort to record the data and information and should be utilized by the University to more fully consider sustainability and to develop specific targets and strategies for reducing the overall environmental impact of the institution.

The objectives of the analysis include:

- Quantify the resource consumption and associated environmental impacts considerations
- Identify principles for operating the campus in a more efficient manner
- Identify strategies for achieving cost savings over the long-term
- Reduce the overall impact of the university on the environment
- Identify opportunities for realigning the land grant mission of the university with the critical environmental issues of the 21st century
- Identify ways to utilize the campus as a “lab” for studying and researching issues of sustainability
EXISTING FACILITIES

Since 2001, fall enrollment at Auburn University has increased from 22,469 to 23,333 - a 4 percent increase in four years. During this time, Auburn has completed several new buildings to accommodate programmatic needs.

Today, the University occupies approximately 4.87 million gross square feet (GSF) of academic, academic support, and other non-residential facilities across the entire 1,870-acre campus. Approximately 4.16 million GSF was located in the established core in 2002 (as defined by West Magnolia, South College, Lem Morrison, and Shugg Jordan Parkway). In 2006, the approximate total gross square feet in the campus core is 5,349,779 GSF.

Increase in Gross Square Footage in Campus Core

<table>
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<th>GSF 2002</th>
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<tr>
<td>GSF 2006</td>
<td>5,349,779</td>
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<tr>
<td>Increase in GSF</td>
<td>1,189,779</td>
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<td>% Increase (02-06)</td>
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Since the 2002 Plan was completed, total building space on campus has increased by 28.6 percent. The increase in energy demand, as discussed later, is attributed, in part, to the construction of new buildings and the uses which they accommodate.

FOSSIL FUEL CONSUMPTION

Fossil fuel consumption related to electricity generation, natural gas use, and single-occupancy vehicle use is summarized in the Master Plan in order to benchmark the costs and associated environmental impacts to the campus. The intent of the summary is to assist the University in setting targets for reducing the expenditures on fossil fuels and reallocate those expenditures to the core mission of education and research.

Electricity

Auburn University used an average of 13,212,570 kilowatts of electricity per month during the 2005 academic year at a cost to the University of $7.3 million dollars. Over the past four academic years, electricity expenditures totaled $26.7 million dollars. Peak electricity consumption at the University occurs at the end of the summer when buildings require the greatest amount of cooling. Peak electricity use increased by 26 percent from the summer of 2004 to the summer of 2005. Over the four-year period, peak electricity use increased by 20 percent. This increase is partially attributed to the new buildings which have been brought on line including the Science Lab Center.
A new substation and service point from Alabama Power Company was completed in 2001 on Hemlock Drive to accommodate the anticipated load over the next five to ten years. While the university may have increasing electrical demands in the next ten years due to construction of new housing, the student center, and a student recreation center, efficiency, conservation and renewable sources of energy should be a consideration with regard to future decisions on the electricity supply.

**Natural Gas**

Auburn University used an average of 46.1 million cubic feet of natural gas per month during the 2005 academic year, resulting in a total annual cost of $5.7 million dollars in 2005. Over the past four academic years, natural gas consumption totaled $16.9 million dollars. Few improvements are currently needed to the natural gas distribution system as many lines have recently been replaced. It is possible that natural gas consumption can be reduced by better utilization of existing spaces, by zoning buildings according to seasonal heating needs, and by considering utilization of alternative energy sources such as solar, especially within the new housing program. Natural gas is utilized on the campus for heating, water heating and cooking.

**Seasonal Electricity and Natural Gas Use**

When examined on a monthly basis, Auburn University spends the most per capita on electricity and natural gas during summer months when far fewer students are enrolled. In the month of August, per capita costs for electricity and natural gas combined were the highest at approximately $200, compared to the annual average of $80 per capita.

In 2004, Auburn University enrolled approximately 6,000 students during the summer session, while 22,000 to 23,000 are enrolled during the fall and spring semesters. Local air temperature is highest during the times of year when student population is at its lowest, yet most of the buildings on campus are air conditioned to accommodate the school-year population. The discrepancy between energy use and lower population results in higher per capita energy costs during the summer months. This suggests that the University should be more targeted in the way buildings are utilized and scheduled during the summer months.

**ENERGY CONSUMPTION & CO₂ EMISSIONS**

Note: The following calculations were completed at a high level several years in advance of more detailed emissions analysis that has now been completed by the University.

In the United States, the building sector is the largest consumer of energy, and thus the largest producer of CO₂ emissions. Approximately 43 percent of U.S. CO₂ emissions can be attributed to residential, commercial, and industrial buildings, leading to detrimental affects on air quality, public health, quality of life, and global warming.
Carbon dioxide is the most prominent of all greenhouse gases. Greenhouse gases are accumulating in the Earth’s atmosphere as a result of human activity, causing global mean air and ocean temperatures to rise. Health and environmental problems may be exacerbated by climate change including increased air pollution, emerging infectious diseases, flooding and erosion, and extreme weather events which will lead to impacts on agriculture and food supply.

**Carbon Dioxide Emissions from Electricity**

Based on electricity use data for 2005 and data from the U.S. Department of Energy, it is estimated that Auburn University emitted approximately 94,000 metric tonnes (208 million pounds) of CO\textsubscript{2} as a result of electricity consumption. This estimate is calculated using coefficients specific to the State of Alabama which take into account local generation of fuels. Because Alabama derives most of its energy from coal-fired power plants, the most CO\textsubscript{2} intensive of all fossil fuels, the emissions associated with electricity are higher than for other fossil fuels such as oil or natural gas.

Because electricity represents a significant annual expenditure for Auburn, and because Alabama relies primarily on coal, the university should seek to limit future increases in electricity consumption through efficiency measures, by encouraging conservation and by identifying renewable sources of energy.

The recommended efficiency and conservation strategies include better utilization of existing buildings and classroom spaces, replacing equipment with more efficient models, the utilization of daylighting and passive solar in all new buildings. The University may also wish to explore the strategic use of photovoltaic cells.

**Carbon Dioxide Emissions from Natural Gas**

Based on natural gas use data for the year 2005 and data from the U.S. Department of Energy, it is estimated that Auburn University emitted approximately 30,000 metric tonnes (67 million pounds) of CO\textsubscript{2} from natural gas use.
Carbon Dioxide Emissions from Automobile Use

As evidenced by 2004 commuting patterns, there is a significant reliance on single occupancy vehicles at Auburn.

2004 Daily Vehicles at Auburn

<table>
<thead>
<tr>
<th>Buses</th>
<th>40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commuter Vehicles</td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>2,968</td>
</tr>
<tr>
<td>Staff</td>
<td>824</td>
</tr>
<tr>
<td>Graduate Students</td>
<td>154</td>
</tr>
<tr>
<td>Students</td>
<td>12,000</td>
</tr>
<tr>
<td>Special Vehicles</td>
<td>77</td>
</tr>
<tr>
<td>TOTAL</td>
<td>16,023</td>
</tr>
<tr>
<td>Resident On-Campus Vehicles</td>
<td>1,227</td>
</tr>
<tr>
<td>Motorcycles</td>
<td>199</td>
</tr>
</tbody>
</table>

Source: AU Office of Campus Planning and Space Management

A key goal of the 2007 Master Plan is to reduce the number of daily vehicle trips to campus, to lower the number of student commuters by offering more on-campus housing, to reduce parking requirements and to foster a walkable academic environment through human-scale urban design and alternative transit such as cycling and transit.

The travel mode share for Auburn University for 2004 demonstrates that driving is the primary mode of transportation. Ninety-four percent of faculty drive, 95 percent of staff drive, 42 percent of undergraduates drive, and 73 percent of graduate students drive.

The United States Energy Information Administration reports that an average of 19.6 lbs. of CO$_2$ is emitted per gallon of gasoline burned.

Based on auto use data for the year 2004 and data from the U.S. Department of Energy, it is conservatively estimated that in 2005 Auburn University emitted approximately 24,000 metric tonnes (52 million pounds) of CO$_2$ from automobile use. This estimate is generated using coefficients from the U.S. Department of Energy and from the Energy Information Administration. It does not include transit. Because specific data is not available on the number of commuters and automobile drivers at Auburn, this emissions value only reflects an estimate based on assumptions made by the Auburn University Office of Campus Planning and Space Management. This estimate assumes that each automobile commuter drives approximately 10 miles daily, and assumes that half of automobiles driven at Auburn are cars and half are sports utility vehicles and trucks.
**EMISSIONS REDUCTION**

Energy use and automobile trends at Auburn University indicate that significant carbon emissions result from daily campus life. The 2007 Master Plan provides recommendations for reducing carbon dioxide emissions through: 1) efficiency and conservation; 2) alternative transportation; and, 3) alternative energy.

**ALTERNATIVE ENERGY**

Current scientific consensus is that human activities, particularly the burning of fossil fuels, have changed the composition of the earth’s atmosphere in ways that are affecting climate. According to the National Academy of Sciences, the Earth’s surface temperature has risen by about one degree Fahrenheit in the past century, with accelerated warming during the past two decades. It is generally accepted that the combustion of fossil fuels for building energy uses and automobiles are the primary reason for the increased concentration of carbon dioxide. Auburn University can reduce carbon emissions through the implementation of alternative energy use and through energy conservation.

**Solar Power**

There are two potential sources for energy savings at Auburn University: active solar and passive solar.

Passive solar refers to a system that collects, stores, and redistributes solar energy without the use of complex technology. It utilizes an integrated design approach that captures the energy of the sun’s rays using building elements for multiple functions. Common elements of passive solar heating systems include a collector consisting of south-facing glazing and an energy storage element such as mass, rock, or water.

Active solar most often refers to photovoltaic panels (PV) but can also refer to other devices called active solar panels. Photovoltaics collect the sun’s rays to produce electricity.

According to the Renewable Potential Map for the East South Central Division, Lee County receives solar radiation ranging from 4-6 kWh/m2/day. This is reported as the monthly average daily total solar resource available to a photovoltaic panel oriented due south.1 Though it is unrealistic for Auburn University to construct solar panels atop every roof on campus, it is helpful to estimate the solar potential that exists among buildings within the campus core. Based on solar radiation per day reported for Lee County by the DOE, the amount of solar radiation that falls on Auburn University’s core

campus roofs is estimated to be approximately 1,019,830 – 1,529,745 kWh / day. Using current PV technology only 15 percent of this potential could be converted to usable energy. However, the point is that the potential exists to capture some of this energy and it is recommended that solar be considered for future projects. As energy costs increase and solar costs decrease, it may be feasible to utilize solar panels on new or renovated buildings. Because there is great solar potential at Auburn University, and because electricity costs at the University are greater than all other utility costs, the University may wish to consider strategic use of photovoltaics. One application of solar power could be in solar water heating. Solar water heating can be one of the best investments made in solar energy technology. A partial solar application could include using solar power to meet water heating needs for the new housing projects.

**Wind Power**

Wind power is an additional source of alternative energy that could be used to support electricity demands at universities. Strong frequent winds are necessary for generating electricity using wind turbines. The United States National Wind Technology Center has assessed wind as a resource across the United States. The best resource areas are shown on maps incorporating wind speeds based on measurements taken throughout the year at monitoring stations and on estimations coming from the newest meteorological models.
According to wind speeds, wind power is not currently a feasible or cost-effective source of energy in the state of Alabama. As the market for wind power gains momentum, in the future, Auburn University may wish to reconsider the possibility of utilizing wind energy generated elsewhere in the country.

**Biomass**

Biomass is a substance that can be used to produce fuel and consists of wood, grasses, and agricultural residue as well as animal excreta, municipal solid waste, and food processing residue. Studies indicate that the United States has excellent biomass resource potential. Compared with other renewable resources, biomass is very flexible; it can be used as fuel for direct combustion, gasified, used in combined heat and power technologies, or biochemical conversions. The agricultural and forestry sectors make available significant quantities of residual biomass.

In recent years, biomass has been the leading source of renewable energy in the United States. Ethanol and biodiesel, which are made from plant matter instead of petroleum, can be excellent substitutes for gasoline and diesel, respectively. By using biomass and biofuels, Auburn could reduce toxic and greenhouse gas emissions, and dependence on imported oil, while supporting agriculture and rural economies.
Future growth and development at Auburn University has implications on local water supplies. The 2007 Master Plan aims to ensure a safe and secure supply of water be provided within the natural constraints of the regional watershed.

Auburn University receives potable water from municipal public water supplier, Auburn Water Works Board. The main water supply of Auburn University comes from the Lake Ogletree Reservoir, located in southeast Auburn. Lake Ogletree is fed mainly by the Chewacla Creek and is currently 300 acres in size. It is located within the Chewacla Creek watershed subbasin which encompasses 36 square miles.

While Auburn is considered to be a humid climate, receiving an average of 54.6 inches of rain per year, the state of Alabama is experiencing limits to water supply based on depleted groundwater aquifers.

While the City of Auburn has taken a supply management approach in the recent past by expanding the Lake Ogletree Reservoir from 260 acres to 300 acres in 2001, there may be cost savings associated with demand management of water needs at Auburn University.

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\[3\] Southeast Regional Climate Center, Period of Record Monthly Climate Summary 1928-1970, http://cirrus.dnr.state.sc.us/cgi-bin/servlet/clIRECTM.pl?ai0422
In 2005, the University used approximately 986,000 gallons of water each day. In the entire year, the University used approximately 360 million gallons at a total cost of $746,000 dollars. Over the past four academic years, water use on campus cost approximately 3.1 million dollars, totaling almost 1.5 billion gallons of water. During this time, per capita water use decreased slightly, from 41 gallons to 36 gallons. Cost savings are associated with the reduction of utility potable water purchases. (986,000 is enough water to fill four Olympic-sized swimming pools.)

Methods for reduction of water use, and thus reduction in expenditures on water at the University, include rainwater harvesting, greywater reuse, reduction in irrigation, and water conservation through efficient technology such as low flow fixtures, drip irrigation, water recycling, and other best available technology. All of these methods should be considered by the University.

**Sanitary Sewer**

Of all utility supply and distribution systems on campus, the sanitary sewer system is in most need of rehabilitation. The improvements required to meet existing sanitary sewer demands include a major rehabilitation effort to replace vitrified clay lines and the upgrade of several small lines which need enlargement. Repairing and replacing existing lines is a costly undertaking and the University should consider alternative factors when making expansion/replacement decisions. Cost savings are provided by the reduction of sanitary sewer flow purchases.

The sanitary system improvements that should be considered include the development of greywater reuse in major new developments such as the housing component of this Master Plan. Due to agricultural demands and location in a warmer climate, high volumes of water are utilized for irrigation. Non-potable water that meets wastewater treatment standards can be applied to end uses such as landscape irrigation, toilet flushing, fire sprinkler systems, and agricultural uses.

The potential costs and benefits of greywater reuse at Auburn are shown below.

**Greywater Reuse**

<table>
<thead>
<tr>
<th>Costs</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Improvements</td>
<td>Eliminates out-of-basin transfer</td>
</tr>
<tr>
<td>Treatment Required on-site</td>
<td>Reduces discharge to sensitive aquatic environments</td>
</tr>
<tr>
<td>Transmission Infrastructure</td>
<td>Provides a sustainable water source</td>
</tr>
</tbody>
</table>

The VOLUME OF WASTEWATER FOR THE CITY OF AUBURN 5.87 MGD and the DAILY CAPACITY OF A SINGLE LIVING MACHINE ~ 80,000 GALLONS are also shown.
SOLID WASTE

In 2004, Auburn University produced 5,900 tons of solid waste according to the following types: routine trash – 2,563 tons; Game Day trash – 315 tons; demolition debris – 2,872 tons; and recyclables – 150 tons. Approximately 5,750 tons were landfilled and 150 tons were sent to be recycled.4

Solid waste generated on campus is transported to the Waste Management landfill in Salem, Alabama. Before August, 2005, recyclables were transported to Waste Recycling in Opelika, Alabama. In August, 2005, Auburn University signed a new contract with SP Recycling, which is located in Forest Park, Georgia – 104 miles from Auburn. As of November, 2005, the recycling program at Auburn has been serviced by both Waste Recycling and SP Recycling. SP Recycling will eventually be collecting and transporting all recyclable materials.

4 Addison, Donny, Recycling Coordinator. Written communication with Lindy Biggs on November 21, 2005.
In 2005, Auburn University established a three-year goal of achieving a 50 percent reduction in material sent to the landfill. Auburn University has a full-time Recycling Coordinator who estimates that approximately 50 percent of all trash is recyclable.

In addition to recycling and solid waste, the University’s Landscape Services has a composting site for landscape materials across from the Facilities Division on West Samford Road. It may be cost-effective and better for the environment if Auburn University engages the dining halls to send food scraps to the composting site as well, rather than disposing of food waste to the landfill in Salem.

**Summary of Solid Waste in 2004**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demolition Debris</td>
<td>49%</td>
</tr>
<tr>
<td>Trash</td>
<td>43%</td>
</tr>
<tr>
<td>Recycling</td>
<td>43%</td>
</tr>
<tr>
<td>Game Day</td>
<td>43%</td>
</tr>
</tbody>
</table>

**Summary of Utility Costs at Auburn**

The analysis reveals a $14.5 million annual utility expenditure at the University. The proposed focus on sustainability could assist the University in reducing these costs. Over time, the objective is to reduce total utility expenditures on a per capita basis thereby allowing the University to divert funds to the core mission.

### Annual Resource Consumption Costs, 2005

<table>
<thead>
<tr>
<th>Resource</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>$7,300,000</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>$5,700,000</td>
</tr>
<tr>
<td>Water</td>
<td>$746,000</td>
</tr>
<tr>
<td>Sanitary Sewer</td>
<td>$779,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$14,525,000</strong></td>
</tr>
</tbody>
</table>
NATURAL SYSTEMS RESOURCES

The importance of the natural systems and land to the sustainability of the University are important considerations in the planning process. This section summarizes the analysis carried on the natural systems of the campus.

Topography

The topography of the Auburn is defined by a gentle landform descending from the northeast corner of campus to the Research Park and College of Veterinary Medicine on the south and west respectively. The high point of the campus, located in the vicinity of W. Thach and S. College provided the initial campus buildings with a prominent position within the campus structure. The landform descends to a lowpoint approximately 120 feet below the elevation of Samford Hall.

Campus Hydrology

The hydrological pattern of the campus is defined by Parkerson Mill Creek, which flows from north to south. The Creek has several tributaries extending to the east and west.

Parkerson Mill Creek, in several areas, has been placed in culverts over the 100 year development history of the campus. In the central campus, the Creek is a “lost natural system” dominated by culverts rather than natural streambeds. The east branch of the Creek is located in culverts which now flow between Parker and Allison. In recent years, this culvert has failed structurally resulting in significant flooding problems. The northern branch of the Creek was placed in a culvert some years ago in conjunction with the construction of Jordan Hare Stadium. This culvert, in recent years, has been improved as part of a larger stormwater management strategy for the North and Central campus areas. The eastern and northern culverts daylight at the intersection of Biggio Drive and South Donahue. At this location, both culverts converge in an open “pond” characterized by concrete channels, pipes and eroded banks.
The culverts and associated bridges have created barriers to fish and wildlife passage where flow depths are low, openings are low, embankments are steep, or downstream outlets of culverts are elevated above the stream bottom.

In 2003, a collaborative report was prepared for Auburn University highlighting adverse impacts to the creek from campus growth. The Parkerson Mill Creek Feasibility Study concluded that natural creek functions have been altered by historic changes in watershed land issues, channel straightening and relocation, piping, floodplain filling, streambank armoring, uncontrolled stormwater runoff, and loss of riparian vegetation. The resulting stream channels throughout the campus are mostly incised down to bedrock with minimal active floodplains and diminished vegetation of riparian corridors. Finally, the report describes observed impacts to the stream as follows: poor aquatic habitat, sediment deposition, eroding streambanks, invasive plant species, and degraded water quality from polluted runoff.

Floodplains

Portions of Parkerson Mill Creek fall within a 100 Year floodplain as defined by the Federal Emergency Management Agency (FEMA). The floodplain has been altered in several locations for new construction including the track and field complex and the McWhorter Women’s Athletic Center. Interventions with the floodplain contribute to water quality, flooding and erosion issues.
Water resources: streams and ponds

Natural vegetation along the Parkerson Mill Creek acts as a filter for contaminants which are washed from developed area by water. Improvements to the creek will be necessary to protect aquatic habitat and enhance visibility to the campus community.

Water resources: 100-year floodplain

Parkerson Mill Creek east of the Memorial Coliseum.
Stormwater Management

Stormwater management is a critical component of infrastructure maintenance and stream protection in urban watersheds. Stormwater from the Auburn campus drains to the Parkerson Mill Creek, which is a tributary of the larger Chewacla Creek Basin. While the capacity of current stormwater infrastructure is adequate, natural stream functions in the watershed have been altered by recent development. Observed impacts include poor aquatic habitat, sediment deposition, eroding stream banks, invasive plant species, and degraded water quality.

Increased stormwater runoff occurs as impervious area increases on parking lots, buildings, or roadways. Non-point source pollution is the term used to describe water washing over the land and paved surfaces picking up an array of contaminants such as oil from automobiles, agricultural petrochemicals, nutrients and toxic chemicals from fertilizers and pesticides, and sediment from improperly managed construction sites.
### Core Campus

<table>
<thead>
<tr>
<th>Land Type</th>
<th>Acres</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Space</td>
<td>262</td>
<td>53%</td>
</tr>
<tr>
<td>Parking</td>
<td>77</td>
<td>15%</td>
</tr>
<tr>
<td>Buildings</td>
<td>73</td>
<td>15%</td>
</tr>
<tr>
<td>Roads</td>
<td>34</td>
<td>7%</td>
</tr>
<tr>
<td>Walks</td>
<td>39</td>
<td>8%</td>
</tr>
<tr>
<td>Sports</td>
<td>8</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>493</td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

### Total Campus

<table>
<thead>
<tr>
<th>Land Type</th>
<th>Acres</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,514</td>
<td></td>
</tr>
<tr>
<td></td>
<td>108</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>112</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>74</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>47</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,867</td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Impervious area of campus.

It has been well documented that impacts can be observed in watersheds with as little as 10 percent impervious surface ratio.\(^5\) Approximately 10 percent effective impervious area in a watershed typically yields demonstrable degradation, some aspects of which are surely irreversible.\(^6\) However, as indicated in the Permeable/Non-Permeable diagram, Auburn’s core campus consists of 45% impervious area and the entire campus consists of approximately 18% impervious area. The core campus includes 77 acres of parking, 73 acres of building footprint, 34 acres of roads, 39 acres of walkways and 8 acres of sports fields.

The visibility of the Parkerson Mill Creek within the campus core is vital to the liveliness of the student experience, education, as well as the ecological diversity of the stream system. Parkerson Mill Creek holds cultural, historical, environmental, and educational value that is underutilized by student life as well as the curriculum.

The diagram showing permeable and non-permeable surface areas details the surface type across the entire campus. It is the goal of the Master Plan Update to improve water quality in Parkerson Mill Creek and manage stormwater better. By increasing the pervious surface on campus, Auburn will enable aquifer recharge that mimics natural conditions.

The recommended improvements to reduce stormwater impacts and increase vitality of Parkerson Mill Creek include the following methods.

- Improve riparian buffers for timed release of water
- Install green roofs to treat stormwater on-site
- Utilize pervious paving, where soil conditions permit

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Wooded Areas

The Auburn campus has approximately 73 acres of woodland outside the developed core. The major wooded concentrations include:

- The Campus Forest – located south of Lem Morrison and to the north of the existing Poultry Unit;
- The Duncan Drive Forest – located to the west of Duncan Drive and adjacent to the recently completed School of Forestry and Wildlife Studies Building;
- Parkerson Mill Creek – the southern reaches of Parkerson Mill Creek are heavily wooded.

Collectively, the wooded areas have value beyond their aesthetic qualities; the woods play an important role in terms of water quality, stormwater management, air quality and carbon sequestration. It is estimated that the wooded areas of the campus annually sequester 1.75 million pounds of carbon dioxide, offsetting some of the 327 million pounds emitted by University from electricity, natural gas and auto-related emissions.

The importance and value placed on the tree cover of the campus is reinforced by the Tree Preservation Policy approved by the Auburn University Board of Trustees on March 26, 1990. The policy states that trees should be preserved and replaced if they must be removed for construction.
Agricultural Land

The agricultural and pasture lands located outside the developed core of the campus are essential to the programs in Agriculture, Forestry and the College of Veterinary Medicine among others. These landscapes are also an important aspect of the character and image of the Auburn campus.

Habitats

Habitat conditions on the campus are not well documented. While no information regarding habitats was surfaced in the preparation of the plan, it can be assumed that the campus wooded, riparian and agricultural areas serve as habitats. The overall strategy to protect these areas of the campus should address habitat preservation concerns until such time that an inventory and documentation process can be carried out.

In addition to an analysis of the natural systems, the sequential development of the campus land use pattern was examined by decade. The purpose of the analysis was to reveal the pattern and pace of campus expansion. The analysis clearly illustrates the need to contain and plan for orderly growth, if the agricultural and forested areas of the campus are to be maintained. (See Chapter 2 for diagrams)

The need to contain growth is further emphasized when reviewed in conjunction the infrastructure capacity and system extents. Current investment in the core and the outlying development areas of the CVM, the Research Park, the Service District and the Art Museum should be the focus of future expansion, the aim of which is to limit the need to invest in major extension.
KEY RECOMMENDATIONS

In closing, based on the analysis, the following is recommended to assist the University in moving toward a more sustainable campus:

- Focus on efficiency and conservation of energy to reduce fossil fuel dependency, expenditures and the associated carbon dioxide emissions. Identify alternative fuel sources.
- Respond to the climate in landscape and building design.
- Rationalize summertime campus use patterns to reduce the cost of operation.
- Use existing space more efficiently and intensely.
- Establish an urban forestry and reforestation strategy for the campus.
- Conserve water through better irrigation practices and the use of more efficient equipment and fixtures in future buildings and building renovations.
- Improve conditions along Parkerson Mill Creek to protect water quality, and habitats.
- Maintain a compact land use pattern contained by Campus Growth Boundaries.
- Focus on alternative modes of transportation with emphasis on human powered movement and Transit.
As part of on-going efforts to assess and document the physical resources of the institution, Auburn University has identified Areas of Environmental Concern on the campus. This effort represents a commitment on the part of the University to act as a steward of the campus; including the visual, hydrological, and soil resources that it includes. As part of the expected operation of a large research institution, serving a significant population of users and a diverse set of uses, some intensive resource utilization is to be expected. Compulsory utility service to a campus population, as well as provision for advanced research, is necessary to support the academic mission of the institution, benefit the larger regional and state economies, and benefit the advancement of science and betterment of the human condition. Left unmonitored or undertaken in an insensitive manner, these necessary functions can compromise the physical environment. The identification of Areas of Environmental Concern assures that the necessary functions of the institutions do not conflict with the sustainable goals of the University.

Some possible reasons for a particular location to be identified as an Area of Environmental Concern include:

- A unique and/or notable landscape that is collocated with, or abuts, an intensive land use.
- An environmentally sensitive area, such as a aquifer recharge zone, stream corridor, or area of erosive soil, that is collocated with or abuts an intensive land use.
- Existing campus areas that have been compromised by past use and require some degree of environmental mitigation and or reclamation.
- Locations on campus currently subject to intensive use that may possibly result in compromising the environmental integrity of immediate and/or interconnected areas.
EXISTING AREAS OF CONCERN

The University has currently identified twenty-four Areas of Environmental Concern, spread across the campus.

Location of Existing Sites

<table>
<thead>
<tr>
<th>Location</th>
<th>Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Campus Core</td>
<td>12</td>
</tr>
<tr>
<td>College of Veterinary Medicine Campus</td>
<td>2</td>
</tr>
<tr>
<td>Research Park Campus</td>
<td>3</td>
</tr>
<tr>
<td>Outside Established Growth Boundaries</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total Existing Sites</strong></td>
<td><strong>24</strong></td>
</tr>
</tbody>
</table>

UNIVERSITY RESPONSE

It is recommended that the University continue their course of due diligence with regard to the AEC initiative. To adopt a comprehensive approach to the address of these areas the University should enact the following recommendations:

Assessment and Documentation

Auburn University has already completed a campus-wide assessment to identify existing Areas of Environmental Concern. Each location identified should be documented and categorized in a standardized fashion to establish a baseline for monitoring and a relative prioritization for management. In addition a periodic schedule for on-going survey should be established to identify any newly developed AEC sites on campus.

Monitoring of Existing Sites

A regular schedule of monitoring should be established for previously identified sites, in conjunction with the periodic campus survey to identify new AEC sites. Conditions of existing sites relative to the baseline documented when the location was identified should be recorded, as well as the progress of any remediation strategies that have been enacted.

Remediation

In conjunction to a contentious approach to assessment and monitoring of new and existing AEC sites, individual locations should be addresses in an appropriate and timely manner according to their prioritization. Sites with a more extensive potential impact or higher sensitivity should be addressed as soon as funding for these projects becomes available. Wherever possible mitigation and remediation efforts should be “packaged” in an efficient fashion with capital improvement and maintenance projects to offset project costs, and hasten implementation.
Existing Areas of Environmental Concern (AEC) noted on the Proposed Plan