

2

PLANNING GUIDELINES

- 2.1 - criteria for landscape design
- 2.2 - criteria for siting new facilities
- 2.3 - criteria for architectural character
- 2.4 - criteria for historic preservation
- 2.5 - criteria for campus circulation
- 2.6 - criteria for sustainability

see also:

Campus Furnishings Standards
Campus Landscape Standards

2.1 CRITERIA FOR LANDSCAPE DESIGN

The landscape of the UA campus is predominantly one of trees and lawn. In this, it follows a long collegiate tradition stretching back to Oxford and Cambridge of simple, well-delineated outdoor spaces shaded by spreading canopy trees. The following guidelines seek to reinforce and extend this collegiate tradition by discouraging excessive complexity of landscape forms and materials, promoting a unified campus landscape rather than a collection of individual landscape “projects,” and creating consistency of hardscape materials and details, along with outdoor furnishings.

A. PLANTING

“A campus is a place for trees and grass, nothing more . . .” *Beatrix Farrand*

In general, the campus landscape should be bold and simple: large canopy trees, lawn, and low ground covers. When appropriate, large, woody shrubs and/or ornamental trees should be used to emphasize the architectural characteristics of the building—entrances, façade articulations, corners, etc.



Key guidelines:

Landscape typology - in order to clarify design intent—for both spatial effect and function—plantings should be conceived of in typological terms: allée, bosquet, grove, lawn, garden, park, fountain, pool, embankment, terrace, court, meadow, etc. Vague and un-descriptive terminology should be **avoided**: i.e. “water feature” vs fountain or “green space” vs lawn.

Hierarchy of open spaces - planting—and building arrangement—should reinforce and clarify the relative importance of campus spaces.

Planting to define space - in large spaces, structural tree planting should be used to define or reinforce the perimeter of the space, emphasize gateways, create allées, etc.

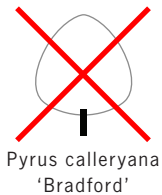
Planting around buildings - general foundation planting should be **avoided**. Plantings at building edges should only be used to emphasize and enhance the character of the architecture.

Planting scale - the size of outdoor spaces should determine the scale of the planting. Large spaces, such as quadrangles, should include larger tree species, while small spaces, such as a passage between buildings, can include small trees and/or shrubs.

Functional plantings - plant material should be used, when appropriate, as an alternative to architectural means for solving functional needs like providing enclosure for outdoor activities, concealing loading docks, service areas, and parking lots, and controlling pedestrian movement and access.

Specialized plantings - highly-decorative or figural plantings should be **avoided** except when called for explicitly in the Campus Plan.

Preservation and augmentation of the native flora is encouraged in those areas of campus where mature vegetation stands remain—such as the Oak Ridge Trail and other forested hillsides. In addition, when choosing plant material for a project, the designer should always take care that **no invasive species** are used.



DO NOT PLANT:

Acer saccharinum - silver maple

Albizia julibrissin - mimosa

hollies:

Ilex cornuta 'Rotunda' - dwarf horned

Ilex vomitoria 'Nana' - dwarf yaupon

Ilex cornuta - chinese

Ilex vomitoria - yaupon

Juniperus - juniper: all varieties

Ligustrum lucidum - tall glossy privet

Malus hybrida - flowering crab apple

pinus:

Pinus mugo 'Compacta' - mugo

Pinus nigra - austrian

Pinus sylvestris - scotch

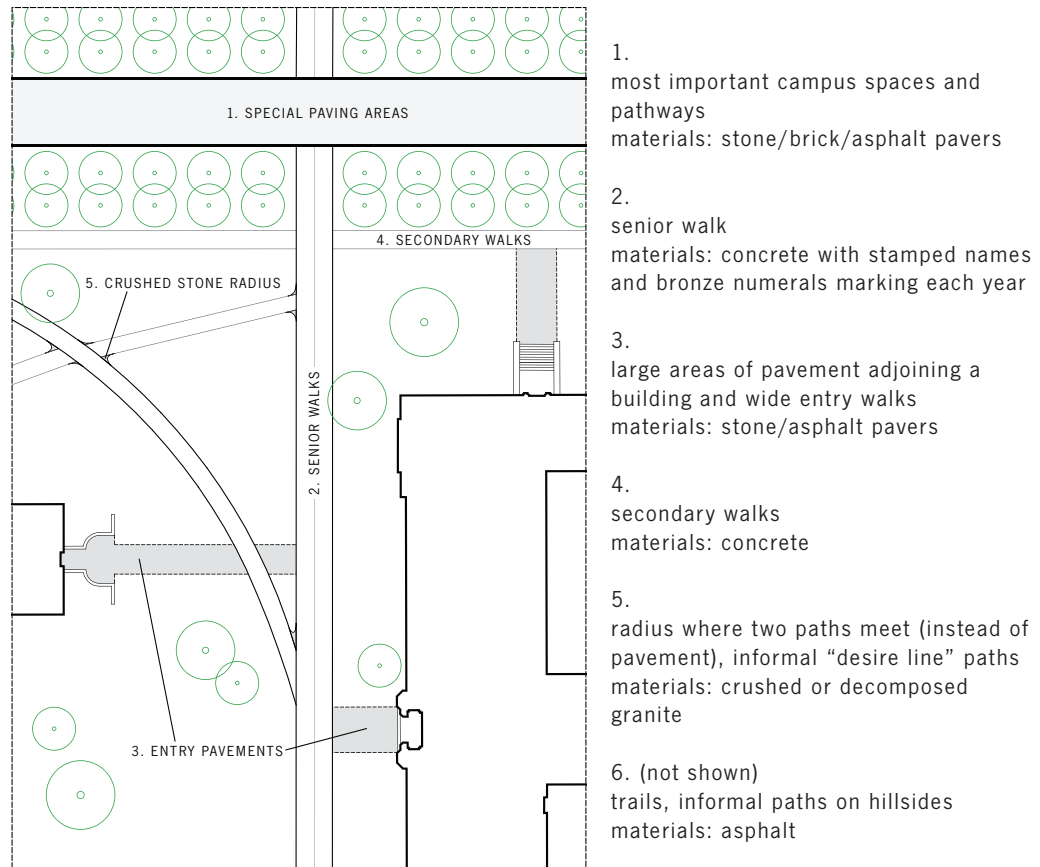
Pinus thunbergii - japanese black

Pyrus calleryana - callery pear: all varieties

Yucca filamentosa - yucca

B. HARDSCAPE

The design of any new hardscape at the UA campus should strive for two goals: to limit, as much as possible, the amount of paved surfaces necessary for the project; and, to seamlessly blend the hardscape with the campus as a whole, avoiding the appearance of a discreet “project.” Similarly, the language of the hardscape design should be seen as distinct from the building itself, not extending any “motif” from the building into the larger campus landscape. In order to facilitate these goals, the following diagram of pavement hierarchies illustrates the several acceptable pavement types and their uses on the UA campus:



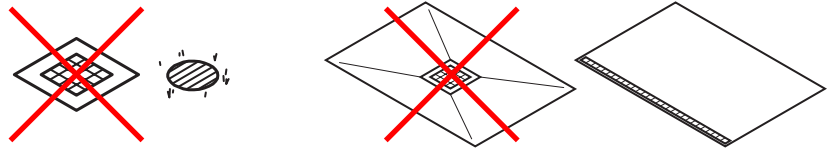
The design of hardscape directly adjoining the project—entry areas, etc—is part of the designer’s basic services. The materials must be selected from the Campus Landscape Standards or, when another material is deemed necessary, directly complement that material palette. *see campus landscape standards*

Key guidelines:

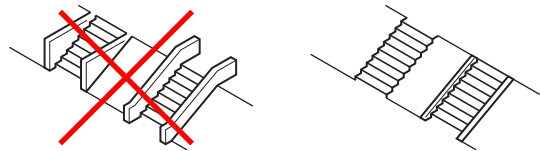
Minimizing concrete surfaces - for large areas of paving such as plazas, terraces, etc. concrete should be **avoided**. Excessive brightness and glare, tendency to crack and degrade, and the inappropriately large scale of unbroken paved surfaces are all aesthetic reasons why concrete is not desirable for these applications. Pavers should be used instead. **No stamped concrete** or simulated “pavers.”

Minimizing impervious paving - both new projects and major renovations should be seen as an opportunity to replace existing impervious paving with landscaping or with new pervious paving/re-charge beds. Pavers set in sand, crushed stone, and grasspave are three solutions which allow varying levels of water to penetrate the surface.

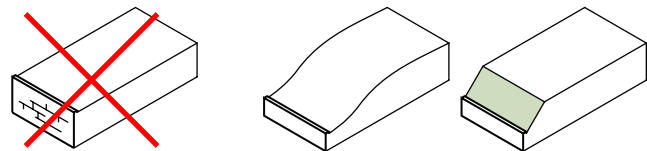
Minimizing the visual impact of drainage structures - Because most attention in hardscape/landscape design is paid to those elements which are seen and used by the general public, oftentimes drainage and other civil engineering structures are left unintegrated with the overall design. The result can be disjointed and ugly. In order to minimize the visual importance of drainage inlets, the designer should consider the following: In large paving areas—terraces, etc—trench drains are preferred over box inlets. In lawn areas, all inlets should be detailed **without** an exposed concrete collar. *see campus landscape standards for inlet detail*



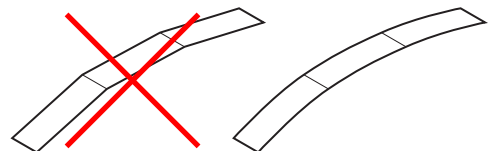
Design of site stairs - site stairs are a common feature on the hilly UA campus. In order to minimize their visual impact, all stairs should be designed to be flush with adjacent grade. “Cheek walls” are **not allowed**.



Retaining walls - retaining walls, when necessary, should be no higher than 5ft from grade. When the change in elevation is greater than 5 ft, retaining walls should be combined with slope regrading—*see below*. Local materials—i.e. sandstone or limestone—should be used for walls in prominent locations. Service areas, and other locations hidden from general view, may be of concrete, although some allowance should be made for ivy or other plant material to cover the surface.



Construction of curved walks - care must be taken during the construction of curved walks (curved in either plan or section) to make sure that they are not constructed in “facets,” but instead as **true curves**.



C. SITE LIGHTING



see
 Campus Furnishings
 Standards for
 standard fixture list

There are two major goals for site lighting on the UA campus: safety and aesthetic quality. Lighting design must create a secure environment while presenting a warm and welcoming atmosphere for students, faculty, and visitors. Contrary to popular belief, more light does not necessarily equal more safety. Minimizing contrast and glare is as important as brightness in allowing the human eye to see comfortably at night. In fact, if contrast remains low, a minimum of .1 to .2 footcandles for exterior lighting is sufficient.

With this in mind, the lighting strategy for the University of Arkansas calls for a purposefully low level of illumination and a spacing of fixtures to minimize contrast, allowing the eye to adjust easily to between areas that are lighted and areas in shadow. The lighting strategy also reduces energy consumption, and it minimizes light trespass/pollution by specifying cut-off fixtures. Facilities Management has worked with lighting engineers to establish the correct lamp types for the desired illumination level and to calculate optimum spacings for the standard campus fixtures. *see campus furnishings standards*

Key guidelines:

<i>Use appropriate light levels:</i>	parking lots	1fc av/.5fc min
	pedestrian areas	.5fc av/.1fc min

Minimizing light trespass and glare - light fixtures should be used so that light goes exactly where it's needed. Floodlights should have louvers or shields to prevent light pollution. All other fixtures must be **full cut-off**.

Uplighting of facades - uplighting is reserved for extraordinary circumstances—i.e. towers of Old Main—in order to minimize light trespass.

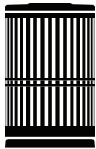
Lighted bollards - bollards or any small-scale landscape light should be used only when absolutely necessary.

Parking garages - idle modes are to be implemented during off-peak hours to reduce energy consumption/light pollution. Light from parking aisles must be strictly contained within the garage. Light fixtures on top of the garage should be white in color, in order to visually recede into the sky.

Sodium lamps - the use of high-pressure sodium lamps is not permitted.

All special fixtures **must be approved** by FM Planning Group.

D. SITE FURNISHINGS



see
Campus Furnishings
Standards for
standard fixture list

Site furnishings such as light poles, benches, handrails, bollards, etc. play a crucial role in creating a harmonious and coherent campus landscape. Without a set of standards for these furnishings, each building project would add disparate and conflicting elements, resulting in visual clutter and chaos where simplicity and consistency should be the goal. The purpose of requiring standard outdoor furnishings is to reinforce the unity of the campus landscape, and consequently, the aesthetic identity of the University.

The Campus Furnishings Standards program is divided into two sections: Classic and Contemporary. The goal is to allow for some congruence between the site furnishings and the building project while still maintaining campus consistency. The site furnishing category is set by District. For example: because of the predominance of Gothic and Classical buildings in the Historic Core, a project in that district would use the “Classic” standard. For a project in the Athletic Valley, where there are a number of large modernist/contemporary buildings, the “Contemporary” standard would apply. *see campus furnishings standards*

Any questions regarding which furnishing standard applies to your project should be referred to FM Planning Group.

All special furnishings **must be approved** by FM Planning Group.

CLASSIC STANDARDS:

Historic Core
Maple Hill
Evergreen Hill
Sorority row
Fraternity row

CONTEMPORARY STANDARDS:

McIlroy Hill
Athletic Valley
Athletics South
ARTP

2.2 CRITERIA FOR SITING NEW FACILITIES

A. CHOOSING A SITE

The siting of campus buildings is determined based on a number of factors. In most cases, FM Planning Group will manage the site selection process, and a site will be selected before the architect is hired.

B. PLACING THE BUILDING WITHIN THE SITE

Once a designer is selected, a meeting is held with Facilities Management, the Building Committee, and the designer to discuss the Campus Master Plan, building placement, and massing. By the time of this meeting, the FM Planning Group will have determined key building alignments which must be respected. Aside from these key alignments, there is flexibility in determining the exact configuration on the site based on the specifics of the program, design intent, etc.

C. SITE ANALYSIS

In the initial phase of the design process, the design team should analyze the site in respect to the following issues:

- scale/massing/arrangement of surrounding buildings
- architectural character/material palette of surrounding campus
- pedestrian/vehicular circulation
- loading/service access
- utilities/UA utility tunnel system
- stormwater
- topography
- views to/from campus
- retention of important visual images (views of Old Main, mountains, etc.)
- environmentally critical areas
- remaining stands of native vegetation
- opportunities for environmental restoration (removal of impervious surfaces, stream restoration, containment and use of storm water)

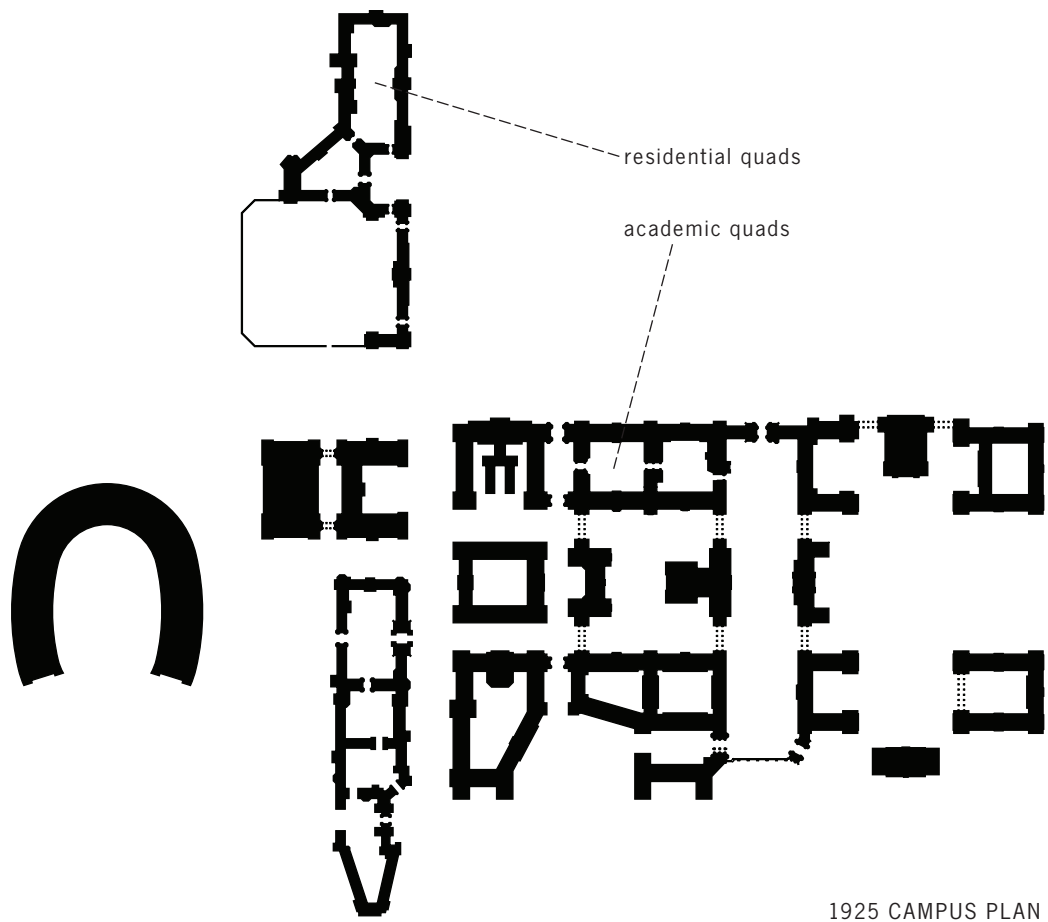
The FM Planning Group will work with the designer to understand the relative importance of each of these issues for the particular site—some of which may not apply in every case—and also how to integrate them with the wider intentions of the current Campus Plan.

D. GENERAL SITE PLANNING STRATEGIES

When planning and designing a new campus building, it is very important to understand the role that individual buildings are required to play. The UA

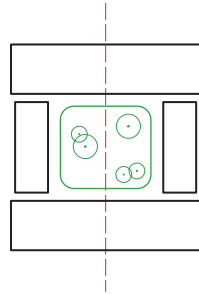
campus, like most campuses in the American collegiate tradition, is a semi-urban composition of buildings and room-like open spaces. Each building contributes toward shaping or enclosing these campus “rooms”—spaces that play an indispensable part in campus life.

The basic open-space structure of the historic campus core (major pedestrian pathways, important building alignments, etc.) was established by the 1925 Campus Plan, which envisioned a series of enclosed quadrangles. Although never completed in its original form due to budget constraints and to changing ideas of campus form, this plan still influences building placement on the campus today. Indeed, as the University grows, and available land becomes scarce, it only makes sense to return to the plan’s Collegiate Gothic model of a dense, urbane environment composed not of isolated buildings, but instead, of interconnected quadrangles and courtyards.

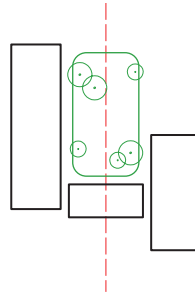


1925 CAMPUS PLAN

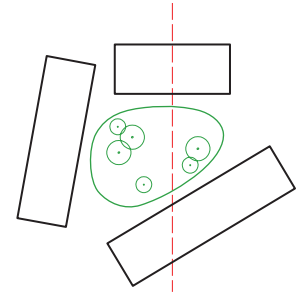
The University has only a few examples of quads designed and built as a single architectural composition as the 1925 Campus Plan intended. From these examples, however, several basic types of quads can be identified, types which may prove useful in future building. *see examples below*



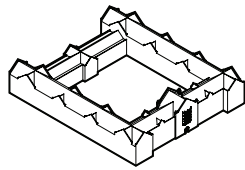
symmetrical quadrangle



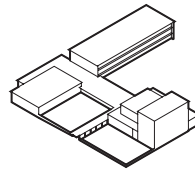
asymmetrical quadrangle



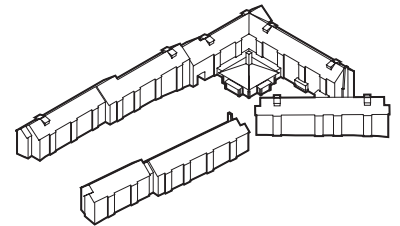
informal quadrangle



1925 Master Plan



Fine Arts Center



Northwest Quad

The 1998 Campus Master Plan recognized the importance of reinvigorating the planning strategy of the 1925 Campus Plan. The Plan rejected the post-WWII move toward “object” buildings randomly placed within large swaths of parking, and called for a return to arranging buildings to delimit green outdoor spaces.

from the 1998 Campus Master Plan:

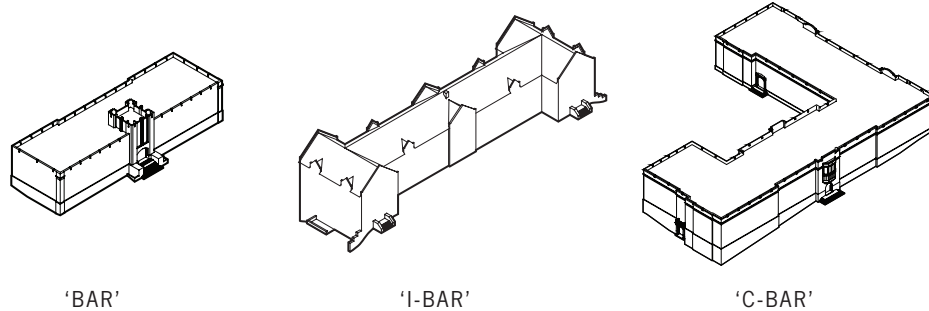
*Principle 18: Buildings should have a civic role that strengthens the civic structure of the campus by defining its spaces. Campus buildings must provide definition and enclosure for outdoor public spaces and help give them their distinctive memorable qualities. Buildings must define, reinforce, enhance, and articulate these spaces by their siting and massing and by the materials and design of their facades. **Campus buildings are to be primarily space-defining buildings, rather than space-occupying buildings.***

Principle 20: Many of the pre-1950 buildings of the core campus exemplify desirable principles of architectural and urban design, are worth preserving and warrant close study, both for their specific design solutions and campus contribution. [excerpt]

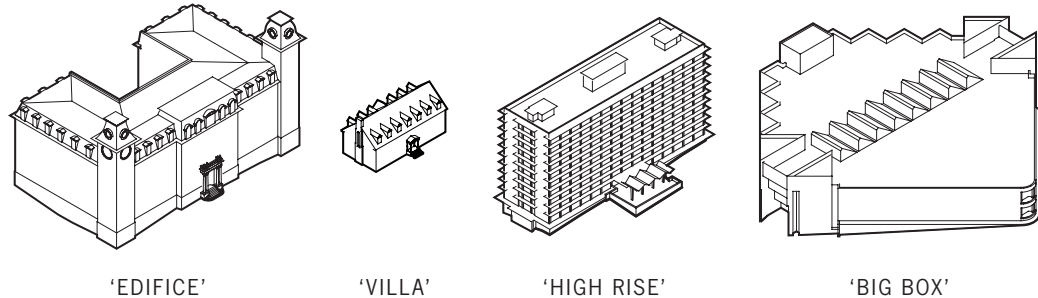
E. MASSING STRATEGIES THAT PROMOTE OUTDOOR ROOMS

The buildings of the UA campus can be broadly divided into two categories: edge-defining and space-occupying. The edge-defining buildings are usually one of a number of simple “bar” shapes no more than 60ft in width, while the space-occupying come in a variety of shapes and sizes. *see examples below*

EDGE-DEFINING TYPES



SPACE-OCCUPYING TYPES



Edge-defining buildings: The most successful buildings on the UA campus are composed of simple rectilinear masses—with or without a pitched roof—as in the “bar” examples above. The designer should understand the role of the new building in creating the first edge of a future quad, or reinforcing/completing the edge of an existing green space. When a building has a program that is too large or complex to be housed in a single volume, the designer should consider breaking down that program into a series of smaller volumes which form a courtyard or quad. Edward Durrell Stone used this compositional strategy in his **Fine Arts Center**. The Music Building, adjacent to the Fine Arts Center, shows how a simple yet well-positioned new building can be used to complete or extend an existing quadrangle, thereby strengthening the structure of the campus open-space system.

Space-occupying buildings: While these types of buildings are highly discouraged, it should be noted that **Old Main**, the University’s most recognizable symbol

is a strongly figural building, due to its height and mass. Likewise, many of the smaller buildings on the campus fringe are traditional “houses” or “villas,” another space-occupying type. This strategy of a self-contained, space-occupying building, however, is not acceptable for most new academic projects. Classroom buildings, laboratories, office buildings, etc. must help to create a seamless campus fabric of harmonious buildings and well-defined open spaces. In particular, the “big box” is not an acceptable building type. These buildings, disrupt the scale and structure of the campus, as well as creating interior spaces without access to views, natural light, or fresh air. The Center for Academic Excellence is a good example of how a designer, when faced with a program that called for a large floor-plate (which a big-box could have accommodated), used a strategy of combining smaller volumes with a large, partial-basement level in order to reduce the scale of the building, let in light, preserve crucial campus views, all while responding to the needs of the users.

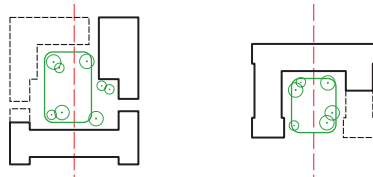
Key guidelines:

simple volumes - buildings should be composed of simple, rectilinear volumes (with or without a pitched roof) or a combination thereof.

edge-defining buildings - new buildings should be designed to create outdoor spaces, not “occupy” them.

building alignments - buildings along streets should be parallel to those streets, not at an angle. Buildings should continue important existing alignments, such as those established by the 1925 Campus Plan, or the natural edge of the campus plateau.

completing existing spaces - new buildings and additions should continue edges already suggested by the other buildings on the site.



anticipating future development - new buildings should anticipate in their layout possibilities for adjacent future development.

height limitation - buildings should be no higher than 5 stories

important campus views - buildings should be sited whenever possible to leave important views open to campus landmarks from the surrounding city, and to emphasize important views from the campus to the city and the mountains beyond.

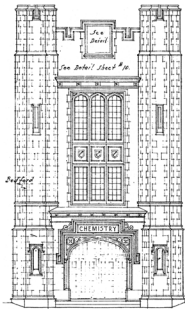
2.3 CRITERIA FOR ARCHITECTURAL CHARACTER

The University of Arkansas campus is composed of buildings of a variety of architectural styles and materials. While the buildings do not necessarily share a single architectural language, they do, in most cases, share a simplicity of form, restraint of articulation, use of durable materials, and a similarity of scale. The most successful campus buildings are those which incorporate all of these elements.

A. EXISTING CAMPUS BUILDINGS

Existing UA buildings fit generally into one of four broad architectural languages:

Gothic

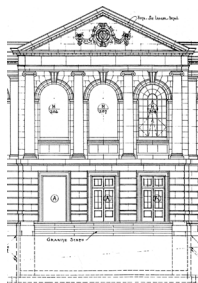


Chemistry Building

The original ‘Collegiate Gothic’ buildings at the University were built as a result of the 1925 Campus Plan. Jamieson & Spearl, who had worked on several Gothic projects at Princeton University, were part of a broad academic and architectural movement spanning back to the 1880’s, which sought to link American universities with the English academic tradition. Princeton president Woodrow Wilson said of the new buildings there, “Gothic architecture has added a thousand years to the history of the university, and has pointed every man’s imagination to the earliest traditions of learning in the English-speaking race.”

Collegiate Gothic recalls in its detail the medieval and early-renaissance buildings of Oxford and Cambridge with a mix of gothic and classical elements, random ashlar stonework, towers, pinnacles, etc. At Arkansas, these buildings, which include Chemistry, Agriculture, and Engineering Hall, set the scale and character for much of the campus core. Later buildings, such as Gregson and Gibson Halls, present a much simplified version of the Collegiate Gothic, with less surface articulation and the use of brick instead of stone.

Classical



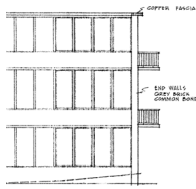
Vol Walker Hall
(Old Library)

The Classical buildings on the UA campus have a broad range of expression. Old Main is a monumental example of ‘Second Empire’ architecture, with its mansard, heavy cornice brackets, and extremely attenuated proportions. Holcombe Hall represents a much more restrained ‘Georgian Revival’ with a simple facade articulated by a wood cornice, brick jack arches, and flemish-bond brickwork. The Old Library (now Vol Walker Hall), on the other hand, was designed with a fully-developed Classicism which includes a rusticated stone plinth, an Ionic order with full entablature on the upper floor, ‘thermal’ windows in the stair hall, a plan which references well-known Neoclassical precedents, etc.

These three examples show the flexibility with which architects have treated the

Classical language on the UA campus in order to adapt to changing taste, budget, and propriety based on use. In the campus core, the situation and use of the Old Library called for a monumental structure, while the private and domestic role of the dormitories and Greek Houses lent itself to a simpler mode.

Modernist

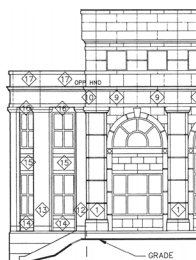


Fine Arts Center

Modernism was first introduced to the UA campus with the construction of the Fine Arts Center in 1951. This ‘International Style’ building was designed by Edward Durrell Stone, a Fayetteville native and former UA student. Other International Style buildings followed, including the School of Law (obscured by subsequent additions) and Fulbright Hall (demolished). As modernist compositions, these buildings reveal a particular attitude toward volume, transparency, space, entry, etc. While these buildings are a break with the architectural language of earlier campus buildings, some architects—Stone, for example—did continue the material palette, scale, and alignments of the Collegiate Gothic campus. Others architects, however, ignored the scale and character of the older campus, as in the design of the high-rise dormitories.

Later ‘Brutalist’ buildings, like the Student Union and Mullins Library, introduced new materials to the campus, such as poured-in-place concrete, ‘pebbledash’ stucco, and exposed aggregate paving. These projects tended to be austere, monumental in scale, and to be placed as object-buildings in the landscape, rather than contributing to the campus as a whole. These buildings tend to be the least successful of all of the campus buildings. Subsequent ‘Neo-modernist’ projects such as the South Chiller Plant and the 2006 Law School addition, looked for architectural inspiration in the more respectful character of buildings like the Fine Arts Center.

Post-Modernist



Mullins Library
1994 addition

‘Post-Modernist’ architecture is an architecture which references, approximates, mixes, or exaggerates historical styles. It has a wide range of possible expressions, but the examples on the UA campus can be generally characterized as a reductive Classicism. As an example, the 1994 addition to Mullins Library shows how the designer greatly simplified the Classical language of the Old Library. Instead of cut limestone blocks, Classical moldings, and carved ornament, the designer used large pre-cast concrete panels with heavy cast ‘joints’ meant to simulate stone construction. The moldings and ornament of the Old Library were eliminated in favor of a series of box-like extrusions. While the large ‘arched’ openings of the reading rooms are a direct reference to the Old Library, they also are greatly simplified, and the windows lack the small panes of the precedent.

Ferritor Hall presents another example of simplified Classicism. While it does not have explicit references to arches, ashlar stonework, columns, etc. it does have a

protruding, plinth-like base; cast indentions simulating rusticated stonework, and a large cove-like cornice, somewhat more akin to ancient Egyptian architecture than to Classicism. These two examples illustrate the tendency of Post-Modernist buildings at the University toward using simulated materials instead of real, of simplifying (and exaggerating) architectural details, and of imitating Classical precedents in a loose way.

B. GENERAL DESIGN GUIDELINES

“. . . it is important to develop a consistent architectural character with visual ties between existing and new buildings.” *1998 Campus Master Plan*

While the University of Arkansas does not dictate a specific architectural language or style for new buildings, there is an expectation that the designer’s first goal in any project is to strengthen the unity and coherence of the campus. That being said, below is a set of general guidelines adopted with the 1998 Campus Master Plan.

from the 1998 Campus Master Plan:

general approach:

. . . Old Main, Vol Walker Hall, Ozark Hall, Memorial Hall, Gregson Hall, Gibson Hall and [Engineering Hall] . . . buildings such as these exhibit the qualities of unity and scale that should be echoed in contemporary architectural terms: simple forms which reinforce the campus open space structure; exterior materials that are warm and inviting but also durable; careful, human-scale detailing; well-defined and clearly recognizable entrances; regularly-spaced, well proportioned window and door openings; and human-scale facade proportions.

policies:

*Principle 13: New development should be primarily urban in character. . . . Their facades and spatial form places emphasis on the public outdoor space which the building fronts, **rather than on particular parts of the building’s program.***
[excerpt]

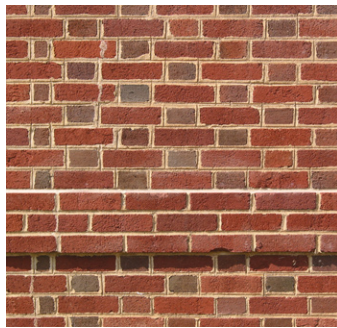
*Principle 14: Development should balance individual expressiveness with contextual responsibility. Buildings should enhance and elaborate the civic qualities of the public outdoor spaces of the campus. While every building ought to have its own identity and personality, **buildings should also express a general consensus about architectural design and about the spatial structure and architectural character of their district.** By their agreement with each other about the general parameters and intentions of architectural design, these buildings establish the architectural character of their district as a whole.*

C. ACCEPTABLE MATERIALS

The purpose of designating an acceptable material palette is to ensure that each building contributes in a complementary way to the image of the University. While there is a variety of materials on the UA campus, this variety has limits. For example, there is a generally muted color range of greys, yellows, ochres, earthy reds, etc. Most buildings use durable, natural materials like brick and stone, while reserving metal and wood for details and windows. Finally, many buildings (particularly the older ones) use local materials like Arkansas sandstone, Batesville limestone, and brick made from local clay. *see examples below*



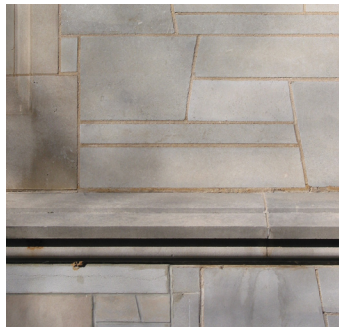
BUFF BRICK
GREGSON HALL



RED BRICK
HOLCOMBE HALL



RED BRICK
OLD MAIN



BATESVILLE LIMESTONE
MEMORIAL HALL



INDIANA LIMESTONE
ENGINEERING HALL



SANDSTONE
OLD MAIN LAWN



STUCCO
OLD WOMEN'S GYMNASIUM



PRECAST CONCRETE
YOCUM HALL



POURED-IN-PLACE CONCRETE
POULTRY SCIENCE

The designer should remember that the unity of the campus depends greatly on the choice of building materials. The following guidelines provide a basic framework for these decisions, while still allowing for design flexibility.

Key guidelines:

durable materials - long-lasting materials such as brick, stone, cast stone, etc. should be used as the primary façade material.

muted colors - the color of natural materials should be chosen to complement the predominant colors of the surrounding campus district. All painted/synthetic materials should be muted and restrained.

patterns - any brick/masonry pattern should be subtle. There should be no excessive striping or patterning of dissimilar materials.

brick bonds - a mix of bonds (Flemish, Common, English, etc.) should be considered as a way to add a subtle texture to large expanses of brick.

metal - metal should be used in very limited areas and/or for details, not as a principle façade material. Natural copper, lead-coated copper, etc (metals which acquire a natural patina) are preferred over metals with an applied synthetic finish.

wood - wood should be used in limited areas and/or for details, not as a principle façade material.

glass - the use of curtain wall systems should be limited to areas such as entries, public lobbies, bays, etc. which punctuate the solid materials of the remainder of the building. Window glass should be clear. Where colored glass is appropriate, the color should be subtle. **Mirrored/reflective glass is not permitted.**

suggested materials for walls - limestone, granite, sandstone, cast stone, buff brick, red brick, real stucco, wood clapboards, slate, etc.

suggested materials for roofs - slate shingles, natural copper standing-seam, lead-coated copper standing-seam, 3-tab asphalt shingles (no “architectural” shingles), membrane (for low-slope roofs).

suggested materials for windows - painted/clad wood frames, metal frames, clear glass.

forbidden materials - vinyl/aluminum siding, mirrored/reflective glass, synthetic stucco.

D. OTHER DESIGN CONSIDERATIONS

Roofs

Rooftops should be carefully considered as part of the design of the building, whether flat or pitched. Because they can be viewed from adjacent campus buildings and neighboring hillsides, roofs should be kept as free as possible from mechanical equipment, chases, exhaust pipes, etc. On pitched roofs, vents and other protrusions should be grouped into as few locations as possible, and placed in dormers or other architecturally appropriate structures. On flat roofs, particularly those which can be seen from above, the same care should be taken to incorporate equipment screens, penthouses, etc. Glare and heat absorption are also important considerations. Light colors which reflect heat should be used unless architecturally inappropriate, or when surrounding buildings would be negatively impacted by the glare of reflected light.

Key guidelines:

- avoid installing HVAC or other equipment on building roofs
- use attic space when possible to house equipment
- provide a screen or penthouse when equipment *must* be on the roof
- consider light colors or green roofs to minimize heat islands

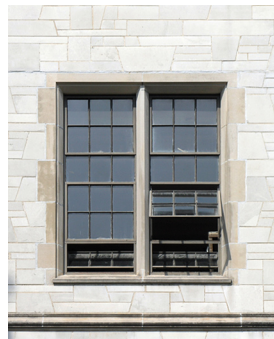
2.4 CRITERIA FOR HISTORIC PRESERVATION

A. ALTERATIONS TO EXISTING BUILDINGS - EXTERIOR

Alterations to the exterior of any existing building on the University of Arkansas campus, such as replacing windows and doors, adding retaining walls, minor building additions, filling openings, etc. should match the original design intent of the building. This entails matching finishes of windows and doors, brick color and texture, mortar color and profile, paint color, etc. Any fixtures that have special architectural merit should be preserved whenever possible. When an original material is no longer produced or is obsolete, care should be taken to choose a new material that complements the design of the building. Similarly, replacement fixtures should suit the design of the building.

Special attention must be paid to historic structures, particularly those on the National Register. All new work should match the original in material, color, texture, etc. Any original fixtures should be retained and restored.

Substitutions of materials that do not meet the original design intent will not be allowed—i.e. fixed plastic shutters vs. operable wood shutters or vinyl siding vs. wood clapboards. When a new material or fixture is introduced, it must complement the design intent of the building.



original window
circa 1930



replacement window
circa 1990



original fixture
circa 1930



replacement fixture
circa 1980

B. ALTERATIONS TO EXISTING BUILDINGS - INTERIOR

While the exterior character of campus buildings is relatively fixed, their interiors change often based on changing use and expectations. It is important, however, to complement the design intent of each building in the major public spaces.

This entails doing no work which obscures original architectural detailing of special merit—i.e. plaster moldings, terrazzo flooring, special woodwork, formal staircases, handrails, etc.

Historic buildings are held to a higher standard. All public spaces—halls, lobbies, stairways, vestibules, large meeting rooms—should retain their original features wherever possible. When a material or fixture is obsolete or cannot be reproduced, the new material must complement the original design intent of the building.



original leather door
circa 1930



replacement door
circa 2000



original fixtures, plaster ceiling, etc.
circa 1930



fluorescent lights, drop-in ceiling, etc.
circa 1990

2.5 CRITERIA FOR CAMPUS CIRCULATION

All projects at the UA campus which involve the movement of pedestrians, private vehicles, service vehicles, public transit, bicycles, etc. should take into consideration the University’s core academic mission, its history, and its character. Above all, the goal of the University for these projects is to create a safe, beautiful, and accessible campus which gives priority to the pedestrian.

A. AUTOMOBILE INFRASTRUCTURE

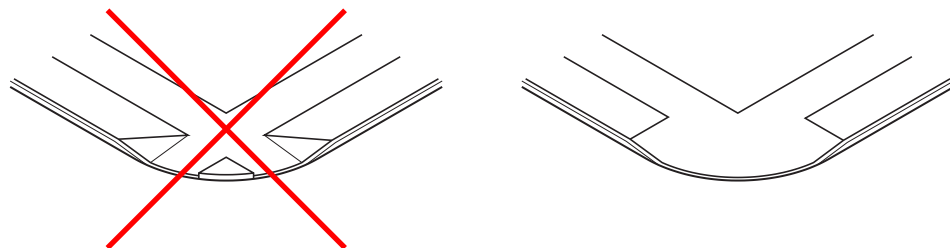
from the 2005 Campus Transportation Plan:

“While providing adequate and convenient parking is a critical component of a successful campus, it should not be provided at the expense of limiting open space opportunities, pedestrian safety, or the University’s history and character.”

Streets

Streets adjoining the campus should be designed to accommodate more than just vehicles. They should instead be places which allow for bicyclists, pedestrians, cars, and buses to coexist as part of a larger transportation system. In particular, the street should be designed for the greatest possible pedestrian safety. This includes providing adequate sidewalks, preferably separated from moving traffic by a planting strip, narrow lanes which slow down motorists, and minimal turning radii to reduce the length of pedestrian crossing time at intersections. The University fully supports these and other Context Sensitive Solutions (CSS) as recommended by the Institute of Transportation Engineers (ITE).

Street design should also contribute to the aesthetic quality of the campus. Curb lines should be kept as simple as possible, without “jogs” or “bump-outs.” Accessible ramps at crossings should be designed with a minimum of complicated curb shapes or splays—see below. Curb cuts for driveways should be visually minimized and allow the sidewalk paving to continue uninterrupted. Finally, only one species of street tree should be planted on a single street, providing a consistent canopy shape for the entire length of the street.



Parking lots

The policy of the University is to remove surface parking from the central campus (see *UA Campus Transportation Plan*). However, when parking is deemed a necessary part of a project, it should be designed to be hidden from the street and screened from the view of important pedestrian paths. Swales, recharge beds, and pervious paving should be considered as ways to limit the need for subsurface drainage structures. In addition, the designer should consider eliminating curbing to allow for sheet flow and soil absorption.

Service areas

Service areas such as loading docks, trash enclosures or other services functions which require vehicular access should be hidden from the street and screened from the view of important pedestrian paths. Whenever possible, the designer should group new service areas with those already existing on the site. Care should be taken to design the site in order to avoid conflicts between service vehicles and pedestrians when possible. In certain cases, when a service drive/ access must be integrated into a pedestrian area, it should be designed to look like a typical pedestrian walk—i.e. no curbs, pedestrian paving, etc.

Key guidelines:

pedestrians, bicyclists, buses, cars - streets sections should be designed to accommodate multiple forms of movement

narrow lanes - traffic lanes should be as narrow as possible, as appropriate for the project context, in order to slow traffic

tight turning radii - use the tightest turning radius appropriate in order to shorten pedestrian crossing times

curb cuts - sidewalks should be designed to continue uninterrupted through driveway openings in order to privilege pedestrian movement and simplify the streetscape

street edges - the designer should avoid any unnecessarily complicated curb lines—bumpouts, jogs, splays, etc—in order to keep the street as simple and clean as possible

accessible ramps - ADA ramps should be seamlessly integrated in the pavement design, without obvious splays, flares, curb returns, islands, etc.

drainage - sustainable solutions such as pervious paving, recharge beds, cisterns, etc. should be considered as alternatives to conventional drainage

B. LANDSCAPE PROJECTS

Major pathways, staircases, ramps, etc. should be designed to minimize impact on the natural topography of the campus, particularly in steeply sloping areas such as the Oak Ridge Preserve, the Maple Hill Arboretum, the Greek Theater, etc. In most campus areas, pedestrian paths should be designed to support the desired lines of travel rather than create a formal geometric arrangement. The pavement chosen should be appropriate to the location and relative importance of the path. *see section 2.1 B for pavement hierarchy diagram*

C. BUILDING PROJECTS

Buildings should engage pedestrian pathways in a straightforward manner. Main entrances should be clearly evident from major paths, rather than hidden at the side, obscured by a deep overhang, etc. Often, all sides of a building will face a campus path, and should be designed to allow access from multiple points. The designer should look for opportunities to integrate the building with the campus pedestrian system, such as in areas where hillsides would encourage pedestrians to use interior stairs as a way to avoid steep outside paths. A good example of this strategy is the interior of Willard Walker Hall, with a central stair hall that traverses the building, providing a direct path from the lower-level street to the elevated quad.

The 1925 plan envisioned a series of portals, cloisters, and pedestrian passageways through buildings as a way to link separate outdoor spaces. These architectural strategies should be used to allow for greater spatial enclosure of outdoor “rooms,” for adding to existing buildings without blocking paths, and for celebrating the pedestrian experience on the UA campus.



Key guidelines:

building entries - building entries should face major pedestrian ways in a clearly evident manner

multiple access points - buildings should be designed for access from several pedestrian paths

linking outdoor spaces - use open-air portals to allow pedestrian movement through the building from one outdoor space to another

D. ADA ON CAMPUS

The University of Arkansas takes very seriously the intent and requirements of the Americans with Disabilities Act. When making decisions about site planning, transit, parking, and other issues related to mobility of campus users, the campus should be considered in its entirety. The goal of universal mobility must be balanced with the physical characteristics of the UA campus. Because the campus is built on a series of hills and valleys, it would take an unrealistic amount of resources, and the wholesale destruction of the natural topography, to make the entire campus landscape ADA accessible.

Site planning rules from *ADA Accessibility Guidelines for Buildings and Facilities*:

ADA 4.1.2 (1) At least one accessible route complying with 4.3 shall be provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading zones if provided, and public streets or sidewalks, to an accessible building entrance.

ADA 4.1.2 (2) At least one accessible route complying with 4.3 shall connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.

ADA 4.3.1 (2) Sites. Level, indirect routes or those with running slopes lower than 1:20 can sometimes provide more convenience than direct routes with maximum allowable slopes or with ramps.

In order to accommodate those with limited mobility, accessible parking spaces are provided both on the hills and in the valleys of campus so that people can park on an accessible route near their destinations. The accessible route required by ADA should connect to the nearest of these accessible parking locations. This strategy allows the University to avoid damaging our hillsides with the construction of extensive ramping systems. In addition to designated parking, the University of Arkansas provides excellent accessible transit service with routes connecting all parts of campus, as well as Paratransit vehicles for those riders who need an additional level of service.

Campus Circulation - resources:

Institute of Transportation Engineers | www.ite.org

Context Sensitive Solutions | www.ite.org/css

UA Campus Transportation Plan | planning.uark.edu

UA Center for Students with Disabilities | www.uark.edu/ua/csd

2.6 CRITERIA FOR SUSTAINABILITY

As the major land-grant and state university for Arkansas, the University plays a crucial role in promoting best practices while protecting the financial assets of the taxpayers. As such, we recognize our crucial role in designing a more energy efficient built environment.

Since buildings are the major source of demand for energy and materials that produce by-product greenhouse gases, the University of Arkansas encourages the use of sustainable design principles in order to reduce the total cost of long-term ownership and to create buildings designed to dramatically reduce their environmental impact.

To address these energy and environmental challenges, the University has the following goals:

- Reduce energy usage in University buildings;
- Reduce energy usage in campus landscapes;
- Promote green buildings;
- Address climate change;
- Encourage diversity in energy generation;
- Promote use of energy from renewable sources;
- Improve University vehicle fleets;
- Encourage incentives to improve vehicle fuel efficiency;
- Invest in transit and a walkable campus;
- Employ architects, engineers, and general contractors with experience and/or knowledge of the principles of sustainable design; and
- Share best energy practices with other institutions.

A. SUSTAINABILITY AND CONSTRUCTION

New campus buildings and full-building renovations should observe the following sustainability criteria. All projects with a construction cost greater than \$1 million must meet these standards, while projects with a construction cost less than \$1 million should incorporate sustainable design principles to the fullest extent possible.

- Reduce the life-cycle cost of facilities by incorporating sustainable design principles in the planning, programming, design, construction, operation, maintenance, restoration, and renovation of all facilities and infrastructure projects, consistent with budget and University requirements. Strategies may include proper siting, building form, glass properties and location, material selection, and incorporating natural heating, cooling, ventilation, and day-lighting techniques.



- Use the US Green Building Council's LEED rating system OR the Green Building Initiative's Green Globes rating system as a tool in applying sustainable design principles, and as a measure of the sustainability achieved through the planning, design, and construction process. A LEED for New Construction and Major Renovations rating of SILVER (33-38 of 69 possible points) or the Green Globes equivalent rating of TWO GLOBES (55-69% of 1000 total points) is the standard to which University projects will be held. [NOTE: *At this time, the University is not requiring formal certification of most its projects, though some projects may . However, the design and construction team will be required to submit a checklist and narrative to substantiate the measures taken to achieve the equivalent of the certification levels desired.*]
- Provide a life-cycle economic analysis of the sustainable strategies and features of the building, as well as an energy cost model that addresses all building system costs, such as building envelope, HVAC, and electrical systems. This analysis must be prepared by the designers of each project and submitted to the University for review.

B. BUILDING COMMISSIONING

A third-party commissioning agent will be hired by the University as part of the project team. This agent will work with the building committee and alongside the design team from schematics through the warranty period, and will certify design, installation, and operation of all mechanical equipment as well as training of the operations and maintenance team.

Sustainability - resources:

American Institute of Architects | aia.org

The Association of Higher Education Facilities Officers | appa.org

National Association of College and University Business Officers | nacubo.org

Society for College and University Planning | scup.org

Arkansas Energy Office | 1800arkansas.com/energy

AR State Act 1770 | arkleg.state.ar.us/ftp/root/acts/2005/public/Act1770.pdf

Green Building Initiative/Green Globes | thegbi.com/greenglobes

U.S. Green Building Council/LEED | leedbuilding.org

Whole Building Design Guide | wbdg.org