The University’s Mission

UTSA’s mission, vision, and core values statements reflect the purpose of our institution (Mission), what we aspire to be (Vision), and the guiding principles that we will use to reach our goals (Core Values).

Mission Statement
The University of Texas at San Antonio is dedicated to the advancement of knowledge through research and discovery, teaching and learning, community engagement, and public service. As an institution of access and excellence, UTSA embraces multicultural traditions, serving as a center for intellectual and creative resources as well as a catalyst for socioeconomic development for Texas, the nation, and the world.

Vision Statement
To be a premier public research university, providing access to educational excellence and preparing citizen leaders for the global environment.

Core Values
We encourage an environment of dialogue and discovery, where integrity, excellence, inclusiveness, respect, collaboration, and innovation are fostered. UTSA’s core values reflect how we have pursued our plan as well as how we will fulfill our mission and realize our vision. Each value reflects rich, shared meaning:

- **Integrity**: adhering to a standard of core values at UTSA and ensuring that one acts in a fair and ethical fashion.

- **Excellence**: commitment to delivering consistently high-quality service, teaching, and research through superior performance.

- **Inclusiveness**: fostering diversity and providing access to educational and socioeconomic opportunities for all—regardless of individual backgrounds and philosophies.

- **Respect**: treating others with civility and openness, recognizing the dignity inherent in each individual.

- **Collaboration**: working with others toward common goals while valuing teamwork, participation, and commitment to public service.

- **Innovation**: encouraging ingenuity, creativity, and discovery.
Purpose Of The Plan

This Plan builds upon recommendations contained in the Campus Master Plan, and is intended to support the University’s mission through guiding principles for the future development of the landscape, pedestrian systems, and general campus character.

Goals & Objectives
There are three major goals for the Plan:

• Develop an integrated, ecologically-based landscape and open space system that helps the University achieve its goal of environmental sustainability.
• Develop a landscape that enhances the living, working, and learning environment of the University.
• Develop a landscape that unifies the campus and gives it a distinct sense of place and expresses the identity of the University.

Plan Organization
The Plan is organized into four main sections:

1: Introduction
Explains the purpose of the plan, campus planning history, guiding landscape principles, and campus-wide frameworks.

2: Typology Guidelines
Identifies and defines the distinct campus open space types and illustrates the common design characteristics of each.

3: Precinct Guidelines
Defines the organizational zones of campus and illustrates the unique design characteristics of each.

4: Hardscape Elements
Identifies campus standards for paving, vertical elements, site furnishings and lighting.

5: Landscape Elements
Identifies campus standards for turfgrass, trees and plants, and illustrates the fundamental planting design principles.

Related Plans & Studies
Although this is a standalone document, it has been produced to complement the following University master plans, studies and manuals:

› Campus Master Plan (2009)
› Exterior Sign System (2011)
› Utilities Master Plan & Electrical System Study (2012)
› Design & Construction Standards (2014)
› Campus Master Plan Update (2014)
› Accessibility Master Plan (TBD)
Table of Contents

1. Introduction
2. Typology Guidelines
3. Precinct Guidelines
4. Hardscape Elements
5. Landscape Elements
Ford, Powell & Carson began planning the campus in 1970. The core development centered on Sombrilla Plaza and the academic buildings framing it. The plaza became the heart of campus activity with paseos, or pedestrian streets, radiating out from it with spectacular views of the Hill Country landscape. The plan was urban in character to retain as much of the natural setting as possible.

The original campus core was complete by 1980, and it faithfully represented the fundamental principles of the master plan. Connectivity and flexibility were key components – building forms can adapt based on needs as long as they support and define the campus’s system of plazas and paseos.

The civic principles of the original master plan sketch are largely focused on the landscape:

1. A large central plaza
2. Landscaped courtyards in big blocks
3. Paseos radiating from the center
4. Gallerias in buildings
5. Large outdoor areas left wild
Campus Master Plan

In the recent years of rapid growth, the relationship between the campus’s buildings and its primary public spaces has become obscured. The current plan restores and extends the principles of the original campus, establishing a pattern for growth that reengages the landscape.

At the heart of the plan is the proposed civic structure — the interconnected arrangement of the campus’s major open spaces. It is these spaces that provide the most memorable components of the campus and the framework to guide the placement and design of its buildings. The proposed civic structure gives the campus the flexibility to accommodate growth, while improving and strengthening the campus’s public realm.

**Principle 2: Civic Structure**
Clarify and improve civic spaces and strengthen the interconnections between them.

**Principle 3: Green Reserve**
Protect existing open spaces by adopting a permanent Green Reserve free of major buildings and parking lots.

**Principle 4: Development Densities**
Conserve open space by maintaining appropriate density in built-up areas.

**Principle 10: Landscape**
Develop a proactive, resource-efficient, and regionally consistent landscape development program in conformance with the landscape plan, principles, and guidelines of the Campus Master Plan.
The foundation of the current Master Plan remains the original Master Plan, organized around Sombrilla Plaza and the Paseos. The proposed network of streets and blocks preserves and extends these elements and augments them with additional open spaces. New buildings are to support the block and street structure by addressing and defining campus open spaces, vehicular and pedestrian streets, quadrangles, and courtyards.

The Master Plan proposes that the density of the core be continued, that the core’s civic structure be extended to organize the site, that the vehicular and pedestrian systems be improved and extended so they can interconnect the disparate parts of campus, and that the landscape design be improved to create a stronger sense of place within the region and to make the outdoor spaces more usable and beautiful.
The landscape principles from the current master plan are focused on strengthening the civic structure, enhancing the pedestrian environment, and preserving the natural qualities of the campus.

- Reinforce the spatial definition of quadrangles, streets and paseos with landscape design.
- Reinforce the room-like quality of quads with formal plantings.
- Incorporate an informal, romantic landscape into open spaces that orient outward to views of the natural landscape.
- Reinforce the linear nature of streets and paseos with paving patterns and allées of trees.
- Restore tree cover in wooded areas where possible.
- Incorporate planters into buildings to enliven facades, and incorporate vine-covered trellises to shade pedestrian areas where appropriate.
- Design landscapes that do not introduce security concerns, especially in wooded areas where hiking and bike trails are contemplated.
- Follow dark sky lighting principles by avoiding upward-pointing light fixtures and excessive foot candle levels.
- Incorporate benches into pedestrian streets and gathering places.
- Screen water quality filtration basins with trees or design naturalistically as ponds to blend in with the landscape.
- Retain existing intermittent streams in developed areas of campus and enhance with appropriate planting.
Open Space Framework

The beauty and livability of a campus is dependent upon its open spaces. The campus open spaces form the critical links that unify the campus under the banner of one distinct place.

As the campus matures, the varying characters of its individual spaces and the means by which they are interconnected into an organic whole will derive as much from the design of the campus’s landscape as they do from its buildings.

This open space framework delineates the pattern of quadrangles, lawns, plazas, paseos, courtyards, walkways, and rec fields around which campus buildings will be organized, complementing and reinforcing the campus’s civic structure. The framework links the campus to its natural surroundings, and enhances the pedestrian experience.

Civic Campus Spaces
1. Sombrilla Plaza
2. Central Quadrangle
3. UTSA Oval
4. Tom Frost Plaza
5. Roadrunner Quadrangle
6. University Center Quadrangle
7. Collegetown Square
Pedestrian Framework

Walkway Hierarchy
The Campus Open Space Plan proposes an orderly, hierarchical and well-defined system of pedestrian walkways, plazas, paseos and courtyards. As such, walkway widths shall be sized for the appropriate level of use. Widths will vary depending on the existing and anticipated volume of pedestrian traffic. Major walkways should be between 10’ and 12’ wide, and minor walkways should be 6’ to 8’ wide.

Paving Materials
Walkway paving materials and widths are dictated by their location. Acceptable materials include concrete and colored concrete, exposed aggregate concrete, clay brick pavers and stone pavers, and decomposed granite. Use of all other paving materials must be approved by the University Landscape Architect.
Pedestrian Realm

**Historic Academic Core**
Pedestrian circulation is based on an ordinal system of paseos that radiate from Sombrilla Plaza.

**Universal Accessibility**
The key to an inclusive pedestrian-oriented campus is having a coherent, universally accessible walkway system. Getting all people to and into campus buildings is of upmost importance. New campus projects will meet ADA and TAS requirements and be coordinated with the Site Accessibility Master Plan.

**Pedestrian Safety**
Riders are required to dismount and walk their bicycles and skateboards in the Dismount Zone during posted hours. Wheelchairs and other devices used by people with disabilities are excluded from this requirement.
2: Typology Guidelines
Typology Guidelines

Campuses are dynamic environments and should provide a variety of spaces to accommodate the many activities that occur within, both academic and recreational. The Campus Open Space Plan defines a series of distinct landscapes based on specific campus planning principles.

The landscape typologies help shape the campus environment while contributing to the quality of life on campus. These types of open space, when linked together through a unified landscape expression, work to create a rich and memorable campus environment.

Typologies
1. Natural Areas
2. Tree Lawns
3. Gateways & Streets
4. Quads & Lawns
5. Plazas & Paseos
6. Courtyards
7. Residential Quads
8. Recreation Areas
9. Connecting Spaces
Landscape Typologies

Natural Areas

Tree Lawns

Gateways & Streets

Quads & Lawns

Plazas & Paseos

Courtyards

Residential Quads

Recreation Areas

Connecting Spaces
Natural Areas

**Natural Areas** are primarily located northern, eastern and western edges of campus and include Rattlesnake Hill south of the Recreation Fields. They are a native Hill Country landscape that are habitat for flora and fauna, which also provide a natural filter for improved water quality. These landscapes are to be preserved in their native state.

**General Guidelines**

1. Provide space for small gatherings and outdoor classrooms.
2. Reduce invasive plant species, plant native vegetation and develop appropriate maintenance regimens to support long-term success.
3. Incorporate natural trails throughout as they are an educational amenity for the campus and community.
4. Consider adding interpretive signage for educational purposes.
Tree Lawns

Tree Lawns are primarily located at the southern edge of campus at the entry gateways along UTSA Boulevard. They also include Tom Frost Plaza east of the Arts Building and the former vegetative filter strip south of the parking lot in East Campus. They are characterized by primarily by mature Live Oaks with an understory of mowed turfgrass.

General Guidelines
1. Maintain the general aesthetic of the existing tree lawns on campus – canopy trees with a lawn understory.
2. Replace existing grasses with HABITURF, a mix of Buffalograss and blue grama and curly mesquite, over time to reduce mowing and weeding maintenance while also providing a setting that better replicates the Hill Country’s naïve shortgrass prairies.
3. Reduce invasive plant species, plant native vegetation and develop appropriate maintenance regimens to support long-term success.
4. Consider adding plant identification signage for educational purposes.
Gateways & Streets

**Gateways** define the transition between campus and the surrounding community while creating visually inviting spaces that provide a welcoming first impression to campus visitors. Minor gateways are similar in function but of a smaller scale than major gateways. **Street** types and locations are defined in the Campus Master Plan.

**General Guidelines**
1. Provide a consistent palette of hardscape and landscape materials that reflect the character of the Peace Boulevard gateway.
2. Design landscape with a simple palette of massed plantings in bold arrangements.
3. Design all masonry walls with Lueders limestone.
4. Design entrances to campus not designated as gateways so they do not read as gateways.
5. Provide sidewalks and canopy trees planted a maximum of 40’ on center on all streets to project a consistent campus image.
6. Provide signage consistent with the Exterior Sign System guidelines.
7. Provide an appropriate level of lighting for pedestrians, motorists and signing purposes.

**Major Gateways**
1. Buerle Road
2. Brennan Avenue
3. Peace Boulevard
4. Ximenes Avenue

**Minor Gateways**
5. Barshop Boulevard
6. Roadrunner Way
7. Future Street
Quads & Lawns

**Quadrangles and Lawns** are large, iconic park-like open spaces that enhance the University’s identity. They are versatile spaces that can be used for a wide-range of activities including informal recreation and communal gatherings. Walkways provide direct routes to, through or around the space. Quads are well-defined, landscape-focused spaces enclosed by buildings or vegetation on a number of sides.

**General Guidelines**
1. Design landscape consisting of open and manicured turf areas with canopy and understory trees as primary landscape elements.
2. Include a simple palette of plantings at building foundations, entrances and focal points.
3. Select hardscape and landscape elements consistent with these design guidelines.

4. Landscaping should consist of a simplified plant palette in formal arrangements.

**Primary Quads**
1. Central Quad
2. Roadrunner Quad
3. UC Quad
4. UTSA Oval
Plazas & Paseos

Plazas are civic, communal gathering spaces that support heavy and frequent pedestrian traffic, outdoor dining, seating areas, and events. They are spatially defined by buildings on at least three sides. Paseos are the main pedestrian “streets” of campus, fronted by buildings, that connect Sombrilla Plaza to the north, south, east and west areas of campus. Both plazas and paseos are spatially defined by the buildings that front them and articulated by the landscape design.

General Guidelines
1. Include areas of landscape within the expanse of hardscape and along edges to soften the space and provide visual interest. Create a manicured landscape aesthetic, consistent with site context.
2. Utilize a varied plant palette including shrubs, perennials and ground covers that provide year-round interest.

3. Incorporate human comfort considerations such as benches, water features and shade.
4. Space Live Oaks evenly along paseos to provide a consistent shade canopy.
5. Provide opportunities for artwork display.
6. Allow for emergency access, as required.

Primary Plazas & Paseos
1. Sombrilla Plaza
2. North Paseo
3. South Paseo
4. Paseo Principal
5. East Paseo
Courtyards

Courtyards are smaller, more intimate and flexible spaces that are spatially defined by buildings on at least three sides. They primarily consist of a higher concentration of hardscape elements such as decorative paving, seat walls, steps, sculpture, fountains, trellises, and also include lush planting areas. Courtyards are typically located off of other open spaces, mainly paseos.

General Guidelines
1. Include areas of landscape within the expanse of hardscape and along edges to soften the space and provide visual interest. Create a manicured landscape aesthetic, consistent with site context.
2. Utilize a varied plant palette including shrubs, perennials and ground covers that provide year-round interest.
3. Extend academic uses of adjacent buildings into the design of the space.
4. Incorporate human comfort considerations such as benches, water features and shade.
5. Construct with a variety of seating arrangements for intimate gatherings.
6. Consider the use of cisterns and rain barrels, as appropriate.
7. Provide opportunities for artwork display.
Residential Quads

Residential Quads are typically smaller, versatile spaces bordered by residential and activity buildings on at least three sides. Walkways provide direct routes to, through or around the space. They are well-defined, landscape-focused spaces that can be used for a wide-range of activities including informal recreation and study.

General Guidelines
1. Design landscape consisting of open and manicured turf areas with canopy and understory trees as primary landscape elements.
2. Include a simple palette of plantings at building foundations, entrances and focal points in formal arrangements.
3. Select hardscape and landscape elements consistent with these design guidelines.
Recreation Areas

Recreation Areas consist of pedestrian walkway zones bordering large, open rec fields. They are primarily composed of perimeter walls, fences, walkways and planting beds. These types of spaces typically have a balance of landscape and hardscape elements.

General Guidelines
1. Provide a continuity of materials along field edges consistent with these guidelines.
2. Provide signage consistent with the Exterior Sign System guidelines.
3. Provide human comfort considerations including tree-lined, perimeter sidewalks with canopy trees planted 40’ on center for shade, and benches every 250’.
4. Provide an appropriate level of lighting for pedestrians and signing purposes.
5. Consider pedestrian safety in the selection and placement of plant material. Landscaping should consist of a simplified plant palette in formal arrangements.
6. Allow for emergency access, as required.
Connecting Spaces

Connecting Spaces consist of informal or formal spaces that connect the larger spaces and building together. They are primarily composed of walkways through lawn areas and are sometimes bordered by planting beds. These types of spaces typically consist of more landscape than hardscape elements.

General Guidelines
1. Design landscape consisting of foundation plantings at building entrances and planting accents as focal points.
2. Provide human comfort considerations including tree-lined, sidewalks with canopy trees planted 40’ on center for shade, and benches every 250’.
3. Provide an appropriate level of lighting for pedestrians and signing purposes.
4. 5. Provide signage consistent with the Exterior Sign System guidelines.
6. Consider pedestrian safety in the selection and placement of plant material. Landscaping should consist of a simplified plant palette in formal arrangements.
7. Allow for emergency access, as required.
3 : Precinct Guidelines
Precinct Guidelines

The guidelines in this section provide specific direction for the open space design of each district on campus. Main campus is broken up into ten distinct landscape precincts, which vary slightly from those defined in the Campus Master Plan.

**Landscape Precincts**
1. Historic Academic Core
2. Central Quadrangle
3. Leon Creek North & South
4. Residential East & West
5. Recreational Playfields
6. Rattlesnake Hill
7. West Campus
8. Collegetown
9. Maverick Creek
10. East Campus
Historic Academic Core

The **Historic Academic Core** contains the original campus buildings designed by Ford, Powell & Carson in the 1970s and is centered on Sombrilla Plaza. The plaza remains beautiful and his perhaps more vibrant today than at any other point in campus history.

**General Guidelines**
1. Preserve and enhance Sombrilla Plaza and associated paseos.
2. Improve paseos with trees, benches and wayfinding graphics.
3. Install trees in planters where it is not practical to plant trees at grade.
4. Provide a rhythm of plantings at an appropriate scale for the space.
Central Quadrangle

As the Main Campus continues to grow west of the Historic Academic Core, the center of activity of the student population will shift westward also. The new Central Quadrangle will serve as the new symbolic center of the campus as well as the focus for the Edward Ximenes Avenue entrance from UTSA Boulevard.

General Guidelines
1. Gently transition from a formal quadrangle at the north to a naturalistic landscape in the area of Ximenes Avenue.
2. Relocate the existing water quality basin south of Lot 5 to this area.
3. Carefully design the basin to have a natural appearance to blend with existing topography and vegetation.
4. Screen the basin from view and discourage trespassing with landscape elements.
Leon Creek North & South

In **Leon Creek North**, UTSA Oval connects the Main Campus entry to Sombrilla Plaza via the North Paseo, creating a direct link between the campus’s entrance and historic center. In **South Leon Creek**, the most notable feature is a new outdoor amphitheater that creates a visual connection to East Campus. The vehicular entrance from UTSA Boulevard is relocated on axis with the South Paseo.

**General Guidelines**

1. Reinforce north-south and east-west connections with a rhythm of trees, plantings, furnishings and lighting.
2. Protect existing sinkholes from development encroachment.
3. Preserve Tom Frost Plaza for scenic eastern views and prevailing southeastern summer winds.
4. Incorporate courtyards into new buildings facing East Park.
Residential East & West

Residential East is centered on Brennan Avenue and connects Loop 1604 to the north with Paseo Principal to the south. New Roadrunner Quadrangle links Chaparral Village to Laurel Village. Future residence halls frame a pedestrian mall between Brennan Avenue and the Rec Fields. Residential West is largely built out and is dominated by Chaparral Village and Chisholm Hall. The sinkhole area should be kept in a natural state.

General Guidelines
1. Reinforce Brennan Avenue with street trees and new north-south walkways with a rhythm of canopy trees for shade.
2. Protect existing sinkholes from development encroachment.
3. Line the new pedestrian mall with a rhythm of canopy trees for shade.
4. Rehabilitate existing quads to new standards as funds become available.
Rattlesnake Hill

Rattlesnake Hill occupies the unique position as the highest natural point on campus. Currently, it is primarily in a natural state, and is envisioned as a natural area, a microcosm of the Hill Country Landscape. Paseo Principal extends across the north face of the hill as a tree-lined allée.

General Guidelines
1. Restore the natural vegetation and geologic character of the hill after removal of the existing parking lot.
2. Provide trails for both recreational and teaching purposes in a manner that preserves and restores the hill’s natural qualities.
3. Protect existing sinkholes and other geologic features from development encroachment.
4. Line the extension of Paseo Principal with a rhythm of canopy trees for shade.
West Campus

West Campus has traditionally been the location of temporary and service-related buildings. Improvements to this area are of a lower priority, and are mostly aimed at knitting it into the rest of campus with realigned walkways and new quads and courtyards.

General Guidelines
1. Reinforce realigned Barshop Boulevard and new streets with sidewalks and a rhythm of trees for shade.
2. Line the new north-south walkway linking Barshop Boulevard to the Rec Fields a rhythm of canopy trees for shade.
3. Maintain existing, large canopy trees in new quads, courtyards and connecting spaces when possible.
Collegetown

Collegetown will be developed into a new mixed-use “neighborhood” when the current lease for University Oaks expires. Collegetown Square, centered on Roadrunner Way, is envisioned to give the district a civic identity.

General Guidelines

1. Reinforce all new streets with sidewalks and a rhythm of trees for shade.
2. Line Roadrunner Way between UTSA Boulevard and Collegetown Square with a double row of canopy trees, in addition to street trees, on both sides with an understory of manicured turf.
3. Create a manicured landscape aesthetic in Collegetown Square consistent with site context.
4. Utilize a varied plant palette in Collegetown Square including shrubs, perennials and ground covers that provide year-round interest.
Maverick Creek & East Campus

The Maverick Creek area on the west side of campus east of Babcock Road is undeveloped except for two existing water quality basins. East Campus lies between a tributary of Leon Creek on the west and Valero Way on the east. It is mostly undeveloped aside from parking lot 13, vegetative filter strips and a utility substation. East Campus contains karsitic features and critical habitat areas. The Hill Country landscape in these areas should be preserved in their native state.

General Guidelines
1. Provide space for small gatherings and outdoor classrooms.
2. Reduce invasive plant species and develop maintenance regimens to support long-term success.
3. Develop low-impact trails throughout for educational and recreational purposes.
4. Consider adding interpretive signage for educational purposes.
4: Hardscape Elements
Hardscape Guidelines

The campus currently has a wide variety of materials, site furnishings and light fixtures of various ages, conditions, and styles. This detracts from the goal of creating a cohesive campus environment. A unified group of hardscape elements contribute to a positive campus character and help give identity to the University. The Campus Master Plan establishes recommendations for paving elements, vertical elements, site furnishings, and pedestrian lighting.

Paving Elements
- Concrete Paving
- Textured Concrete Paving
- Stone Paving
- Clay Brick Pavers
- Concrete Pavers
- Structural Turf
- Crosswalks

Vertical Elements
- Steps & Accessible Ramps
- Curb Ramps
- Concrete & Sawtooth Curbs
- Seat Walls
- Site & Landscape Walls
- Railings
- Fencing & Screening

Site Furnishings
- Concrete Seating
- Metal Seating
- Wood Seating
- Stone Benches
- Receptacles
- Bicycle Parking
- Pedestrian Control
- Tree Grates
- Planters

Pedestrian Lighting
- Post Fixtures
- Post Bases
- Historic Academic Core Posts
- Historic Academic Core Bollards
- Landscape Fixtures
Concrete Paving

**Cast-In-Place Concrete**
The standard material for sidewalks is cast-in-place concrete with a broom finish and a scoring pattern perpendicular to the walkway direction. Asphalt paving is not permitted. Walkway intersections shall be chamfered or designed with corner radii to reasonably accommodate service vehicles and the natural flow of pedestrian traffic. Pavement thickness on cast-in-place walkways less than 8’ is typically 4”. Walkways 8’ or greater shall be at least 6” thick and designed to carry campus service vehicles.

**Cast-In-Place Colored Concrete**
The use of cast-in-place colored concrete shall be approved at the discretion of the University Landscape Architect. Colors shall be integral to the concrete mix. Finish and scoring pattern shall be identical to cast-in-place concrete.
Textured Concrete Paving

Exposed Aggregate Concrete
Standard paving on paseos and in the Historic Academic Core is exposed aggregate concrete with a blend of 75% size 3-5 Burnett Pink granite and 25% white-tan limestone aggregate averaging 1/2” to 3/4” in size. Scoring pattern shall typically be in a brick pattern unless otherwise directed by the University Landscape Architect. Paving mockups shall be provided and approved by the University Landscape Architect. Typical thickness for pedestrian-only walkways is 4”; walkways designed to carry campus service vehicles shall be at least 6” thick.

Rock Salt Finish Concrete
A rock salt finish with Construcolor VOI liquid gel pigment color AA069F admixture may be used upon approval of the University Landscape Architect. Scoring pattern shall typically be perpendicular to the walkway direction.
Stone Paving

**Stone Pavers**
The standard material for stone pavers is 1” thick Oklahoma flagstone laid in a random pattern. Locations shall be limited to special areas such as plazas, paseos and courtyards. The preferred installation is in a 1” mortar setting bed on a cast-in-place concrete slab with 1/4” mortar joint to match the flagstone. The underlying slab thickness and base course shall depend on sidewalk width and load requirements.

**Decomposed Granite**
The standard installation is a 5” thick decomposed granite wearing course compacted to 3” on a 4” compacted sub-base contained with a 3/16” by 5” black steel edging. Depending on location, other edging materials may be used upon approval of the University Landscape Architect. A stabilizer shall be used to prevent washout from runoff.
Clay Brick Pavers

The standard material for clay brick pavers is a 4” by 8” by 2-1/4” English Edge style paver manufactured by Pine Hall Brick. Primary patterns can be in a running, basket weave or herringbone pattern using Rose Full Range. For vehicular areas, a herringbone primary pattern must be used. Accent patterns shall be in a stack pattern using Cocoa Full Range. Clay brick pavers may be used to accent cast-in-place concrete paving (in bands) or in special areas such as building entries and terraces, crosswalks, plazas and courtyards. The preferred installation method is in a 1” sand setting bed on a cast-in-place concrete slab. The underlying slab thickness and base course shall depend on sidewalk width and load requirements. A 1/4” standard gray mortar joint may be used where applicable.
Concrete Pavers

The use of modular concrete pavers must be approved by the University Landscape Architect.
Structural Turf

The standard structural turf installation is a gridded 24” square Hastings checker block paver laid on a minimum of 1” bedding sand over a 10” base of compacted crushed limestone. Paver voids shall be covered by 1” of topsoil and bermudagrass sod (see Landscape Elements section). The use of plastic structural turf products is not permitted.
Crosswalks

In general, crosswalk widths shall match abutting sidewalk width.

**Painted Crosswalks**
The standard crosswalks material is 18” white epoxy painted solid bars spaced 18” apart.

**Brick Crosswalks**
These crosswalks are comprised of the standard clay brick paver laid in a herringbone pattern between 8” wide by 18” deep concrete header curbs.

**Raised Brick Crosswalks**
These crosswalks may be used as a traffic calming measure in high-volume pedestrian areas upon approval of the University Landscape Architect. They consist of the standard clay brick paver laid in a herringbone pattern contained within 36” wide by 6” high by concrete tapers with 18” deep turndown footings.
Steps & Accessible Ramps

The design of stairs, ramps, and handrails shall comply with the current version of ADA and TAS.

**Steps**
The standard material for steps is cast-in-place concrete with a non-slip surface. Exposed aggregate must be used in the Historic Academic Core. The standard tread to riser ratio is 12” to 6” with a 1/2” corner radius. There is a maximum of 10 risers per run of stairs without a landing.

**Accessible Ramps**
The standard material for accessible ramps is cast-in-place concrete with a non-slip surface.

**Handrails**
Handrails shall be made steel primed and painted bronze (insert paint reference here). Posts shall be spaced evenly at a maximum of 6’ between posts.
Curb Ramps

The design of curb ramps shall comply with the current version of ADA and TAS.

Curb Ramps
The standard material for curb ramps is cast-in-place concrete. In certain areas, clay brick pavers may be used upon approval of the University Landscape Architect. Asphalt curb ramps are not permitted. Curb ramps can be either parallel or perpendicular to the direction of traffic depending on site conditions.

Detectable Warning Surface
A cast iron detectable warning plate with truncated domes manufactured by East Jordan Ironworks in an Insignia Red powdercoated finish must be used on all curb ramps. The plate shall conform to the rectangular or radial curb orientation.
Concrete Curbs

All curbs on campus shall be cast-in-place concrete. The use of asphalt curbs is not permitted.

Vertical Curbs
The standard vertical curb shall be 6” high by 9” wide with a 3” taper from the pavement surface to the top of curb, leaving 6” of level area to the back of curb. The curb face and top intersection shall be designed with a 4” corner radius. Curb depth will vary based on the thickness of the adjacent pavement.

Header Curbs
The standard header curb shall be flush with the adjacent paving and be 9” wide. When used at accessible parking spaces, precast concrete wheel stops must be used to supplement the header curb.
Sawtooth Curbs

In areas where water runoff must pass through a curb, a cast-in-place sawtooth curb is standard. The design profile is identical to the standard concrete curb with 12” openings every 36” on center. The side of each curb at the openings shall be angled at 45 degrees. Curb depth varies based on the thickness of the adjacent pavement.
Seat Walls

Low-profile walls 18” to 24” high and at least 18” wide can be placed in gathering areas, such as building entrances, along high-volume walkways or at major walkway intersections to accommodate impromptu seating. Preferred materials are textured concrete, brick or stone. The use of modular concrete units is not permitted. Seat walls built in association with buildings should closely match the material, quality and finish of the building walls and also compliment the adjacent paving material.

The use of plain concrete walls should be avoided but may be used in budget-sensitive projects in low traffic areas upon approval of the University Landscape Architect.
Site & Landscape Walls

Site Walls
Medium to high profile site walls at least 18” wide can be used to define campus gateways and edges, retain grades, define building entrances and terraces, and screen service and utility areas. Preferred materials are concrete, brick or stone. The use of modular concrete units is not permitted. Copings shall be designed in proportion to the wall and to withstand weather impacts. Walls built in association with buildings should closely match the design, quality and finish of the building walls and also compliment the adjacent paving material.

Landscape Walls
Low profile limestone landscape walls can be used in certain settings upon approval of the University Landscape Architect. The use of modular concrete units is not permitted.
Railings

The design of railings shall comply with the current version of ADA and TAS.

Preferred railing materials include steel or aluminum. The use of wood railings is not permitted. Railing design, materials and finish should complement the building architectural design. Railings built in close proximity to site steps should complement the design, quality and finish of the step handrail and vice versa. New concrete railings in the Historic Academic Core must match the existing railing design.
Fencing & Screening

**Barrier Fences**
The standard material is metal with simple vertical pickets and a black finish. Fencing built in close proximity to buildings should be compatible to the adjacent building architecture. The use of permanent chain link fencing is not permitted.

**Service Enclosures**
Fencing design of utility enclosures must incorporate piers at each change in fence direction, and be constructed of materials compatible to the adjacent building architecture. Piers should be a minimum of 24” square, capped, and must extend a minimum of 6” above the top of fence.

**Green Screens**
The use of fencing planted with vines may be used upon approval by the University Landscape Architect.
Concrete Seating

The standard material for benches and tables in the Historic Academic Core is cast concrete. New furnishings shall match the existing designs as closely as possible, and must be approved by the University Landscape Architect. The use of concrete benches in locations other than the Historic Academic Core is not permitted.
Metal Seating

Benches
The standard outside of the Historic Academic Core is the 72” long, backed Parc Vue bench in Stone powdercoat finish manufactured by Landscape Forms. The bench shall be surface mounted as recommended by the manufacturer.

Tables & Chairs
The standard in the Historic Academic Core is the Carousel table with 4 or 6 gridded chairs in Stone powdercoat finish manufactured by Landscape Forms. A percentage of accessible tables with 3 chairs shall be incorporated. The tables shall be freestanding, and include an umbrella hole. The use of umbrellas is site-specific and their locations must be approved by the University Landscape Architect. The Mingle table and chair combination manufactured by Landscape Forms will no longer be specified for use on campus.
Wood Seating

Wood benches, tables and chairs are for Sombrilla Plaza only.

**Benches**
The standard is the 72” long, teak Hyde Park bench with no finish manufactured by Walpole Woodworkers. The bench shall have arms and be surface mounted as recommended by the manufacturer.

**Tables & Chairs**
The standard is the 48” diameter, teak Wellspring table and chairs with no finish manufactured by Landscape Forms. The tables shall be freestanding, and include an umbrella hole. The use of umbrellas is site-specific and their locations must be approved by the University Landscape Architect. Four armed chairs shall be specified for each table.
Stone Benches

The standard shall be constructed from granite provided by the University. Lengths shall be site-specific and surface mounted to the ground with 8” #4 steel dowels at each granite pedestal base. Each bench shall include skate stops placed 24” on center. Their use is site-specific and must be approved by the University Landscape Architect.
Receptacles

**Litter Receptacles**
The standard outside of the Historic Academic Core is the 24” diameter, top-opening Chase Park receptacle in Stone powdercoat finish manufactured by Landscape Forms. The standard in the Historic Academic Core is the 24” diameter top-opening TF1083 receptacle in Weatherstone Buff finish manufactured by Wausau Tile. All receptacles shall be freestanding.

**Recycling Receptacles**
The standard is the 24” diameter top-opening Chase Park freestanding receptacle in Ocean powdercoat finish manufactured by Landscape Forms.

**Solar Compactors**
The standard is the BigBelly trash and recycling station in grey powdercoat finish manufactured by BigBelly Solar. The receptacle shall be mounted on a 29” by 52” concrete pad set 2” above grade.
Bicycle Facilities

**Portable Bicycle Racks**
The standard is the 9-bike, single-sided Portable Heavy Duty rack (PBR6203-9) in electroplate galvanized finish with clear coat manufactured by Palmer Group.

**Permanent Bicycle Racks**
The standard is the steel Classic U/2 Bike Rack in stainless steel finish manufactured by CycleSafe.

**Bicycle Shelters**
Weather protection for a portion of bicycle parking shall be provided. The standard is the steel Norway shelter in stainless steel finish manufactured by Environmental Street Furniture.

**Bicycle Lockers**
The standard is the Multiple CycLocker in stainless steel finish manufactured by Columbia Cascade.
Pedestrian Control

Bollards
The standard is the 6” diameter Annapolis bollard in Stone powdercoat finish manufactured by Landscape Forms. Where vehicular access is necessary, the standard is the 6” diameter flat-topped removable bollard in stainless steel finish manufactured by Calpipe. The bollard shall have an internal, tamper-proof lock and stainless steel lid. Pipe bollards are permitted for use only in service areas.

Post & Chain
The standard post is the 3” diameter PSU cast aluminum fence post model 14424 with cast aluminum ball top and D-ring in bronze powdercoat finish manufactured by Quality Machining. Posts shall extend 36” above grade and be spaced 9’ on center. Chains shall be 1/4” grade 30 proof coil chain in bronze powdercoat finish. Low points of each chain section shall be set at 22” above grade.
Tree Grates

The standard is the 6’ square model M7252 tree grate in cast aluminum finish manufactured by Ironsmith and installed as recommended by the manufacturer. The grate shall include 22” tree openings and light wells to accommodate irrigation equipment.
Planters

All planters shall have drain holes and drip irrigation. Sizes other than those listed here may be used upon approval of the University Landscape Architect.

**Concrete Planters**
The standard in the Historic Academic Core is the 36” square (TF4195) or 36” diameter (SL4034) freestanding planter in Weatherstone Buff finish manufactured by Wausau Tile.

**Polyethylene Planters**
The standard outside of the Historic Core is the 36” diameter Rosa freestanding planter in Otter finish manufactured by Landscape Forms.
Site Lighting Network

The goal of these standards is to promote safety and efficiency; minimize light pollution and glare; provide uniform illumination across traveled surfaces; and provide a pleasing environment that protects the ability to view the night sky. The diagram conceptually illustrates the desired lighting intensity.

Provide adequate lighting levels for pedestrians in compliance with IES Standards, particularly in areas of higher pedestrian volume. The standard foot-candle requirement for new walkways and paseos is 1.0 minimum and 3.0 average illumination. For plazas, courtyards and quads the minimum is 1.0 with a 2.0 average illumination. Shields shall be used to reduce light glare onto buildings. All new light fixtures shall be LED. The use of alternative sources must be approved by the University Landscape Architect.
Post Fixtures

Pedestrian Lights
The standard is [size] [model] fixture in bronze powdercoat finish manufactured by [company name]. Posts shall be anchored to a concrete base (see Post Bases section). These fixtures are used to illuminate walkways, courtyards, plazas and paseos. To provide well-illuminated pedestrian surroundings, it is suggested that 8’ on either side be lit to levels of at least 1/3 of that recommended for the pedestrian way. Placement of individual fixtures may vary up to 20% of the average spacing for non-consecutive placement changes. Transverse deviation should be made only when other positioning alternatives are not possible.

Emergency Phones
The standard shall be placed along new walkways based on current safety regulations and installed as recommended by the manufacturer.
Post Bases

The standard for bases is cast-in-place concrete. Precast concrete and stone are also permitted upon approval of the University Landscape Architect. The width, height and form of the base shall be dictated by site-specific conditions, post size, bolt spacing and structural requirements.
Historic Academic Core Posts

The original Historic Academic Core metal post fixtures are no longer commercially available. All existing fixtures will be maintained on campus to the fullest extent possible.
Historic Academic Core Bollards

The original Historic Academic Core concrete and metal fixtures are no longer commercially available. All existing fixtures will be maintained on campus to the fullest extent possible. New lighted bollards will no longer be specified for use on campus.
Landscape Fixtures

Shadow Lighting
This type of illumination involves placing a fixture in front of the subject (typically a tree) in order to highlight interesting shapes such as branch structure. The closer the luminaire is to the subject the larger the shadow. The standard is an 8” by 1-1/2” model MR-11 Bullet fixture with bronze body and copper shroud manufactured by Cast Lighting.

Moon Lighting
This type of illumination involves concealing a fixture in a tree and aiming it downward to create an effect of light filtering through the branches on a moonlit night. Fixtures should be hidden and positioned as high as possible. They can be complimented with shadow lighting. The standard is a 14” by 2-1/4” Tree Light fixture with bronze body and copper shroud manufactured by Cast Lighting.
5 : Landscape Elements
General Planting Guidelines

There are a number of principles that generally pertain to all areas of the campus, and which should form the basic framework for thinking about the landscape.

Spatial Definition
The spatial character of campus is largely defined by buildings, topography, and the landscape. While individual buildings or plants may possess individually attractive features, the emphasis of campus open space design should be on the larger relationships of formative elements to space such as limiting or directing views, creating overhead enclosure, and reinforcing spaces and walkways.

Scale
In general, planting beds should be simple and conceived in broad strokes that are appropriately scaled to adjacent campus buildings, roads, and spaces.

Intricate, domestic scaled plantings are inappropriate when arbitrarily located next to institutional size buildings.

Planting Character
Plants selected for use should possess visual traits that are representative of the character of plants indigenous to the region. Generally, plants that are highly exotic should not be used even though they may be in fashion from time to time.

Pattern
Generally, quadrangles should reinforce their room-like quality with formal plantings. Spaces on edges facing natural areas should have an informal, romantic landscape character. Paseos and major connecting walkways should reinforce their linear nature and be shaded with allées of trees. Foundation plantings should employ continuous masses of plants that create a unified composition.

Variety
Campus planting should be sufficiently diverse both in species and age of plants to maintain resilience in the event of unforeseen changes in the environment, such as disease or severe climate stress that may target plants of a specific type. Simultaneously, visual unity, without monotony, should be fostered. Variety within unity can be achieved by planting in groups of similar species and by avoiding clashing forms and colors.

Visibility
Vegetation should be selected, organized, and maintained to promote a general feeling of openness and visibility. Campus landscapes should create a strong overhead and, rich ground plane, and a clear middle zone in order to provide unobstructed views. All pruning for added visibility must be previously reviewed with the University Landscape Architect.
Turfgrass

**Bermudagrass**
Tifway 419 bermudagrass shall be used in all landscape typologies except Natural Areas and Tree Lawns. It is drought and traffic tolerant and requires full sunlight to perform well.

**Habiturf**
A mix of Buffalograss, blue grama, curly mesquite and hairy grama shall be used only in Natural Areas and Tree Lawns. It requires less mowing, watering and weeding and simulates native, shortgrass prairies.

**Establishment**
All turfgrass shall be installed as sod because it is quickly established, it provides immediate erosion and dust control, minimizes weed control, and it can be established year-round.

**General Installation**
Turfgrass is healthier, needs less water and tolerates stress better if grown in 10 to 12 inches of non-compacted soil. Compacted soil must be tilled or aerated to improve water flow and rooting. Provide irrigation for all bermudagrass lawns. Place sod in a brick pattern within 36 hours of harvesting. Install sod across significant slopes. Water sod similarly to established turf but more frequently.
Plants

The local climate can create a harsh living environment for many plant species, particularly those not native to the region. There are a number of species that are able to withstand and thrive in these conditions. The following lists of plants were compiled based on plants identified as being able to survive within the South Central Texas region, located within the USDA Hardiness Zone 8b.

To the practical extent possible, tree and plantings should consist of species that are native to the region and suited to the specific conditions found on campus. This will in most cases enhance the possibility for long term adaptation of plants to the environment and create a visual setting that harmonizes with the characteristic beauty of the region. If it is deemed that introduced plants are preferable to native plants in certain situations, they should only be used if they are non-invasive.

Planting should be species diverse, to maintain resilience, while achieving visual unity. The plant list identifies the preferred species based on performance and market availability. In addition to the plant list, Lady Bird Johnson Wildflower Center maintains a comprehensive list of predominantly native plants that that may be considered. All final selections must be approved by the University Landscape Architect prior to use.
# Preferred Plant List

## Trees

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona cypress</td>
<td>Cupressus arizonica</td>
</tr>
<tr>
<td>Texas Ash</td>
<td>Fraxinus albicans</td>
</tr>
<tr>
<td>Ashe juniper, Ashe's juniper, Mountain cedar</td>
<td>Juniperus ashei</td>
</tr>
<tr>
<td>Eastern red cedar, Eastern redcedar, Virginia juniper</td>
<td>Juniperus virginiana</td>
</tr>
<tr>
<td>Texas red oak, Buckley oak, Spanish oak, Spotted Oak</td>
<td>Quercus buckeye</td>
</tr>
<tr>
<td>Escarpment live oak, Plateau live oak, Texas live oak</td>
<td>Quercus fusiformis</td>
</tr>
<tr>
<td>Lacey oak, Texas blue oak, Canyon oak, Smoky oak</td>
<td>Quercus lacyei</td>
</tr>
<tr>
<td>Bur oak, Burr oak, Savannah oak, Overcup oak, Prairie oak</td>
<td>Quercus macrocarpa</td>
</tr>
<tr>
<td>Chinkapin oak, Chinquapin oak, Chestnut oak</td>
<td>Quercus muehlenbergii</td>
</tr>
<tr>
<td>Mexican white oak, Monterrey oak, Netleaf white oak</td>
<td>Quercus polymorpha</td>
</tr>
<tr>
<td>Shumard oak, Shumard's oak, Shumard red oak</td>
<td>Quercus shumardii</td>
</tr>
<tr>
<td>Coastal live oak, Southern live oak, Live oak</td>
<td>Quercus virginiana</td>
</tr>
<tr>
<td>Mexican palm, Texas, Palm, Palma Di Micharos</td>
<td>Sabal mexicana</td>
</tr>
<tr>
<td>Western soapberry, Soapberry</td>
<td>Sapindus saponaria</td>
</tr>
<tr>
<td>Cedar elm, Fall elm, Olmo</td>
<td>Ulmus crassifolia</td>
</tr>
</tbody>
</table>

## Small & Ornamental Trees

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huisache, Sweet acacia, Mealy wattle</td>
<td>Acacia farnesiana</td>
</tr>
<tr>
<td>Anacacho orchid tree, Anacacho bauhinia, Orchid tree</td>
<td>Bauhinia lunarioides</td>
</tr>
<tr>
<td>Mexican redbud</td>
<td>Cercis canadensis</td>
</tr>
<tr>
<td>Desert willow, Flowering willow, Willow-leaved catalpa</td>
<td>Chilopsis linearis</td>
</tr>
<tr>
<td>Roughleaf dogwood, Drummond's dogwood</td>
<td>Cornus drummondii</td>
</tr>
<tr>
<td>American smoke tree, Smoke tree, Texas smoke tree</td>
<td>Cotinus obovatus</td>
</tr>
<tr>
<td>Texas persimmon, Mexican persimmon, Black persimmon</td>
<td>Diospyros texana</td>
</tr>
<tr>
<td>Carolina buckthorn, Carolina false buckthorn, Indian cherry</td>
<td>Frangula caroliniana</td>
</tr>
<tr>
<td>Retama, Paloverde, Mexican Palo Verde, Jerusalem thorn</td>
<td>Parkinsonia carica</td>
</tr>
<tr>
<td>Honey mesquite</td>
<td>Prosopis glandulosa</td>
</tr>
<tr>
<td>Mexican plum, Bigtree plum</td>
<td>Prunus mexicana</td>
</tr>
<tr>
<td>Prairie flameleaf sumac, Flame-leaf sumac, Prairie sumac</td>
<td>Rhus lanceolata</td>
</tr>
<tr>
<td>Texas mountain laurel, Mountain laurel, Mescal bean</td>
<td>Sophora secundiflora</td>
</tr>
<tr>
<td>Eve's necklace, Eve's neckacepod, Texas sophora</td>
<td>Styphnolobium affine</td>
</tr>
<tr>
<td>Mexican buckeye</td>
<td>Ungnadia speciosa</td>
</tr>
</tbody>
</table>
### Shrubs

<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Common Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesculus pavia</td>
<td>Scarlet buckeye, Red buckeye, Firecracker plant</td>
</tr>
<tr>
<td>Ageratina havanaensis</td>
<td>Shrubby boneset, White mistflower, Mistflower</td>
</tr>
<tr>
<td>Anisacanthus quadrifidus var. wrightii</td>
<td>Flame acanthus, Hummingbird bush, Wright's desert honeysuckle, Wright acanthus, Mexican flame</td>
</tr>
<tr>
<td>Calylophus berlandieri</td>
<td>Berlandier's sundrops, Square-bud primrose, Sundrops</td>
</tr>
<tr>
<td>Eysenhardtia texana</td>
<td>Texas kidneywood, Kidneywood, Bee-Brush, Vara dulce</td>
</tr>
<tr>
<td>Hypericum calycinum</td>
<td>Aaron's beard, Great St-John's wort, and Jerusalem star</td>
</tr>
<tr>
<td>Ilex cornuta</td>
<td>Chinese holly</td>
</tr>
<tr>
<td>Ilex vomitoria</td>
<td>Yaupon, Yaupon Holly, Cassina</td>
</tr>
<tr>
<td>Jasminium mesnyi</td>
<td>Primrose jasmine</td>
</tr>
<tr>
<td>Lantana urticoides</td>
<td>Texas lantana, Calico bush, West Indian shrub-verbena</td>
</tr>
<tr>
<td>Leucophyllum frutescens</td>
<td>Cenizo, Purple sage, Texas barometer bush, Texas sage</td>
</tr>
<tr>
<td>Lippia graveolens</td>
<td>Mexican oregano, Redbrush lippia</td>
</tr>
<tr>
<td>Mahonia trifoliolata</td>
<td>Agarita, Agarita, Algerita, Laredo mahonia</td>
</tr>
<tr>
<td>Malpighia glabra</td>
<td>Acerola, Barbados Cherry, Manzanita, Wild crapemyrtle</td>
</tr>
<tr>
<td>Malvaviscus arboreus var. drummondii</td>
<td>Turk's cap or Turkscap, Drummond's turkscap, Wax mallow, Drummond wax-mallow, Red mallow, Texas mallow</td>
</tr>
<tr>
<td>Morella cerifera</td>
<td>Wax myrtle, Southern bayberry, Candleberry</td>
</tr>
<tr>
<td>Pavonia lasiopetalas</td>
<td>Rock rose, Rose pavonia, Rose mallow, Pavonia</td>
</tr>
<tr>
<td>Rhus aromatica</td>
<td>Fragrant sumac, Aromatic sumac, Lemon sumac</td>
</tr>
<tr>
<td>Rhus virgins</td>
<td>Evergreen sumac, Tobacco sumac</td>
</tr>
<tr>
<td>Senna lindheimeriana</td>
<td>Lindheimer's senna, Velvet leaf senna, Velvetleaf senna</td>
</tr>
<tr>
<td>Senna roemeriana</td>
<td>Twoleaf senna, Two leaved senna</td>
</tr>
<tr>
<td>Tecoma stans</td>
<td>Yellow bells, Yellowbells, Esperanza, Yellow trumpetbush</td>
</tr>
</tbody>
</table>

### Succulents

<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Common Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hesperaloe parviflora</td>
<td>Red yucca, Coral yucca, Red flowered false yucca</td>
</tr>
<tr>
<td>Opuntia ellisiana</td>
<td>Spineless prickly pear, Tigertongue, South Texas pricklypear</td>
</tr>
<tr>
<td>Opuntia engelmannii</td>
<td>Texas pricklypear, Prickly Pear, Texas Prickly Pear</td>
</tr>
<tr>
<td>Opuntia macrorhiza</td>
<td>Common prickly-pear, Plains prickly pear, Prickly Pear</td>
</tr>
<tr>
<td>Yucca rupicola</td>
<td>Twistleaf yucca, Twisted-leaf yucca, Texas yucca</td>
</tr>
<tr>
<td>Yucca thompsoniana</td>
<td>Thompson’s yucca, Thompson Yucca, Beaked yucca</td>
</tr>
<tr>
<td>Yucca treculeana</td>
<td>Spanish Dagger, Don Quixote's Lance, Palma Pita</td>
</tr>
</tbody>
</table>

### Grasses

<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Common Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bouteloua curtipendula</td>
<td>Sideoats grama</td>
</tr>
<tr>
<td>Dasyliion texanum</td>
<td>Texas sotol, Sotol</td>
</tr>
<tr>
<td>Liriope muscari</td>
<td>Big blue lillyturf, Lilyturf, Border grass, Monkey grass</td>
</tr>
<tr>
<td>Melica nitens</td>
<td>Three-flower melic, Tall melicgrass, Melicgrass</td>
</tr>
<tr>
<td>Muhlenbergia lind.</td>
<td>Lindheimer's muhl, Big mulh, Lindheimer muhly</td>
</tr>
<tr>
<td>Nolina texana</td>
<td>Texas sacahuista, Texas beargrass, Basket grass, Sacahuista</td>
</tr>
<tr>
<td>Schizachyrium scop.</td>
<td>Little bluestem</td>
</tr>
</tbody>
</table>
# Preferred Plant List

## Herbaceous

<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Achillea filipendulina</em></td>
<td>Yarrow, Fernleaf yarrow, Milfoil, Nosebleed</td>
</tr>
<tr>
<td><em>Achillea millefolium</em></td>
<td>Common yarrow, Yarrow, Milfoil, Western yarrow</td>
</tr>
<tr>
<td><em>Aquilegia canadensis</em></td>
<td>Eastern red columbine, Wild red columbine</td>
</tr>
<tr>
<td><em>Aquilegia chrysantha</em> var. <em>hinchleyana</em></td>
<td>Hinckley's golden columbine, Yellow columbine, Hinckley columbine, Capote columbine</td>
</tr>
<tr>
<td><em>Centaurea pulcherrima</em></td>
<td>Poinciana, Peacock flower, Red bird of paradise</td>
</tr>
<tr>
<td><em>Callirhoe involucrata</em></td>
<td>Winecup, Purple poppy mallow</td>
</tr>
<tr>
<td><em>Castilleja indivisa</em></td>
<td>Entireleaf indian paintbrush, Texas paintbrush</td>
</tr>
<tr>
<td><em>Delphinium carolinianum</em></td>
<td>Carolina larkspur, Prairie larkspur, Plains larkspur</td>
</tr>
<tr>
<td><em>Echinacea angustifolia</em></td>
<td>Black Sampson, Black Samson echinacea</td>
</tr>
<tr>
<td><em>Echinacea purpurea</em></td>
<td>Eastern purple coneflower, Purple coneflower</td>
</tr>
<tr>
<td><em>Engelmannia peristenia</em></td>
<td>Engelmann's daisy, Engelmann Daisy, Cutleaf Daisy</td>
</tr>
<tr>
<td><em>Eryngium leavenworthii</em></td>
<td>Leavenworth's eryngo, Eryngo</td>
</tr>
<tr>
<td><em>Gaillardia pulchella</em></td>
<td>Firewheel, Indian Blanket</td>
</tr>
<tr>
<td><em>Glandularia bipinnatifida</em> var. <em>bipinnatifida</em></td>
<td>Prairie verbena, Purple prairie verbena, Dakota mock vervain, Dakota vervain</td>
</tr>
<tr>
<td><em>Glandularia bipinnatifida</em></td>
<td>Dakota mock vervain, Davis Mountain mock vervain</td>
</tr>
<tr>
<td><em>Heliandthus maximiliani</em></td>
<td>Maximilian sunflower, Max sunflower</td>
</tr>
<tr>
<td><em>Ipomopsis rubra</em></td>
<td>Standing cypress, Texas plume, Red Texas star, Red gilia</td>
</tr>
<tr>
<td><em>Lavandula lantana</em></td>
<td>Lavender</td>
</tr>
<tr>
<td><em>Liatris mucsonata</em></td>
<td>Cusp gayfeather, Gayfeather, Blazing star</td>
</tr>
<tr>
<td><em>Lindheimeria texana</em></td>
<td>Texas yellowstar, Texas star, Lindheimer daisy</td>
</tr>
<tr>
<td><em>Lobelia cardinalis</em></td>
<td>Cardinal flower</td>
</tr>
<tr>
<td><em>Lupinus subcarnosus</em></td>
<td>Sandyland bluebonnet, Texas bluebonnet</td>
</tr>
<tr>
<td><em>Lupinus texensis</em></td>
<td><em>Texas bluebonnet, Bluebonnet, Texas lupine, Buffalo clover</em></td>
</tr>
<tr>
<td><em>Melampodium leuc.</em></td>
<td>Blackfoot Daisy, Rock daisy, Plains blackfoot</td>
</tr>
</tbody>
</table>

## Herbaceous

<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Penstemon cobaea</em></td>
<td>Wild foxglove, Prairie penstemon, Foxglove penstemon</td>
</tr>
<tr>
<td><em>Penstemon triflorus</em></td>
<td>Hill Country Penstemon, Scarlet Penstemon</td>
</tr>
<tr>
<td><em>Phlox drummondii</em></td>
<td>Annual phlox, McAllister’s phlox, Drummond phlox</td>
</tr>
<tr>
<td><em>Ratibida columnifera</em></td>
<td>Mexican hat, Prairie coneflower, Upright prairie coneflower</td>
</tr>
<tr>
<td><em>Rivina humilis</em></td>
<td>Pigeonberry, Rouge plant, Baby peppers</td>
</tr>
<tr>
<td><em>Rudbeckia hirta</em></td>
<td>Black-eyed Susan, Common black-eyed Susan</td>
</tr>
<tr>
<td><em>Salvia farinacea</em></td>
<td>Mealy blue sage, Mealy sage, Mealycup sage</td>
</tr>
<tr>
<td><em>Salvia roemeriana</em></td>
<td>Cedar sage</td>
</tr>
<tr>
<td><em>Santolina cham.</em></td>
<td>Cotton lavender, Lavender cotton</td>
</tr>
<tr>
<td><em>Tetranurus scaposa</em></td>
<td>Four-nerve daisy, Hymenoxys, Stemmy four-nerve daisy</td>
</tr>
<tr>
<td><em>Thelesperma filifolium</em></td>
<td>Stiff greenthread, Showy Navajo tea, Greenthread</td>
</tr>
<tr>
<td><em>Thymus vulgaris</em></td>
<td>Common thyme, Garden thyme, Thyme</td>
</tr>
<tr>
<td><em>Wedelia texana</em></td>
<td>Zexmenia, Orange zexmenia, Wedelia, Hairy wedelia</td>
</tr>
</tbody>
</table>

## Vines

<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Antigonon leptopus</em></td>
<td>Mexican creeper, Coral vine or San Miguelito vine</td>
</tr>
<tr>
<td><em>Clematis texensis</em></td>
<td>Scarlet clematis, Scarlet leatherflower, Texas clematis</td>
</tr>
<tr>
<td><em>Gelsemium sempervirens</em></td>
<td>Carolina jessamine, Yellow jessamine, Evening trumpetflower, Poor man’s rope</td>
</tr>
<tr>
<td><em>Parthenocissus quin.</em></td>
<td>Virginia creeper</td>
</tr>
<tr>
<td><em>Trachelospermum asiaticum</em></td>
<td>Asiatic jasmine</td>
</tr>
</tbody>
</table>
## Invasive Species List

### DO NOT PLANT

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree of heaven</td>
<td>Ailanthus altissima</td>
</tr>
<tr>
<td>Mimosa, Silk tree</td>
<td>Albizia julibrissin</td>
</tr>
<tr>
<td>Elephant ear</td>
<td>Alocasia, Colocasia spp.</td>
</tr>
<tr>
<td>Giant cane</td>
<td>Arundo donax</td>
</tr>
<tr>
<td>Paper mulberry</td>
<td>Broussonetia papyrifera</td>
</tr>
<tr>
<td>Japanese holly fern</td>
<td>Cyrtomium falcatum</td>
</tr>
<tr>
<td>Common water hyacinth</td>
<td>Eichhornia crassipes</td>
</tr>
<tr>
<td>Russian olive</td>
<td>Eleagnus angustifolia</td>
</tr>
<tr>
<td>Chinese parasol tree</td>
<td>Firmiana simplex</td>
</tr>
<tr>
<td>Hydrilla</td>
<td>Hydrilla verticillata</td>
</tr>
<tr>
<td>Waxleaf ligustrum</td>
<td>Ligustrum japonicum</td>
</tr>
<tr>
<td>Chinese privet</td>
<td>Ligustrum sinense</td>
</tr>
<tr>
<td>Wild privet, Common privet,</td>
<td>Ligustrum vulgar</td>
</tr>
<tr>
<td>European privet</td>
<td>Lonicera japonica</td>
</tr>
<tr>
<td>Japanese honeysuckle</td>
<td>Melia azedarach</td>
</tr>
<tr>
<td>Chinaberry</td>
<td>Morus alba</td>
</tr>
<tr>
<td>White mulberry</td>
<td>Myriophyllum spicatum</td>
</tr>
<tr>
<td>Eurasian watermilfoil</td>
<td>Nandina domestica</td>
</tr>
<tr>
<td>Nandina</td>
<td>Photinia spp.</td>
</tr>
<tr>
<td>Russian olive</td>
<td>Pistacia chinesis</td>
</tr>
<tr>
<td>Chinese privet</td>
<td>Pueraria lobata</td>
</tr>
<tr>
<td>Chinese parasol tree</td>
<td>Pyracantha spp.</td>
</tr>
<tr>
<td>Hydrilla</td>
<td>Sapium sebiferum</td>
</tr>
<tr>
<td>Tamarix spp.</td>
<td>Sorghum halepense</td>
</tr>
<tr>
<td>Tamarisk, Salt cedar</td>
<td>Toxicodendron radicans</td>
</tr>
<tr>
<td>Poison ivy</td>
<td>Vinca major</td>
</tr>
<tr>
<td>Bigleaf periwinkle</td>
<td>Vitex agnus-castus</td>
</tr>
<tr>
<td>Chinese Wisteria</td>
<td>Wisteria sinensis</td>
</tr>
<tr>
<td>Japanese Wisteria</td>
<td>Wisteria floribunda</td>
</tr>
</tbody>
</table>
Plant Establishment

Trees
All street, shade and ornamental trees shall be supplied balled and burlapped. Trees pits shall be excavated the same depth and twice the diameter as the root ball. Pit shall be backfilled with prepared soil mix and ringed with soil to form a water basin 4” high. Mulch with 3” of brown dyed mulch making sure not place it directly onto trunk base. If tree is not irrigated then a 20-gallon Treegator bag shall be installed and filled every other day for the first month then every three days afterwards.

Shrubs
All shrub beds shall be excavated the same depth as the root ball or container. Bed shall be backfilled with 8” minimum of prepared soil mix then mulched with 3” of brown dyed mulch. If and edge is required, then it shall be a 1/4” thick by 5” high steel edger secured in place.
A visitor’s first impression of campus is likely to be formed during the first ten minutes. The attention to detail conveyed by the quality of the campus landscape can affect the perception that visitors develop towards the University. A poorly maintained campus allows visitors to infer that this lack of attention may be a common theme impacting other aspects of campus life. It is for this reason, that landscape maintenance plays a fundamental role in maintaining and enhancing the University’s role as a premier institution of higher education.

The following maintenance zones, corresponding to APPA standards, prioritize anticipated levels of maintenance required for each zone. Highly visible areas should receive the most amount of maintenance, secondary areas should receive less maintenance, and natural areas should receive little to no maintenance.

**Maintenance Zones**
- **Level 1:** High visibility spaces such as gateways, signature quads and lawns, plazas, paseos, courtyards and areas of high pedestrian activity.
- **Level 2:** Moderate visibility pedestrian spaces such as academic and housing quads.
- **Level 3:** Moderate visibility pedestrian areas such as connecting spaces and irrigated plant beds.
- **Level 4:** Low visibility pedestrian areas such as tree lawns and non-irrigated plant beds.
- **Level 6:** Natural areas only.
Landscape Irrigation

Given the constraints imposed by limited water supplies, it is recommended that all planted landscape areas be designed to succeed without supplementary irrigation after the establishment period. Improved landscaping practices such as using native and adapted plants and grasses can help conserve potable water resources and dramatically reduce irrigation needs. The following design principles will help the University conserve water on campus:

**Water Use Zones**

- **High: Regular watering.** High visibility areas such as campus gateways and in areas where there is a high concentration of pedestrian activity.
- **Moderate: Occasional watering.** Secondary open space, building entrances and smaller plaza spaces.
- **Low: No watering;** natural rainfall only. Includes campus edges and large areas of existing tree canopy.

**Planting Guidelines**

- Plant turf grasses only for functional benefits such as recreation and pedestrian areas or soil conservation.
- Analyze soils and amend to provide adequate moisture retention capacity.
- Choose plants from the plant list that will easily adapt to the site.
- Maintain mulch layer in planting beds to conserve moisture and prevent evaporative water loss from the soil surface to reduce the need for supplemental irrigation.

**Efficient Watering Practices**

- Maintain irrigation systems for efficient and effective operation.
- Verify watering schedules and duration on a monthly basis.
- Use drip irrigation systems where applicable
- Use smart irrigation controllers throughout.

- Monitor and schedule modifications from a computer-controlled central location.
- Irrigate turf between May and October only.
- Irrigate planting beds between June and September only.
- Do not irrigate native grass and wildflower seed mix areas.

**Newly Planted Trees**

It is imperative that water be provided to all new trees planted on campus. If trees are planted in areas without irrigation, temporary tree watering bags and/or manual watering via water trucks must be utilized to ensure the success of the newly planted trees. Once a new tree is established (6 months after planting), a watering program during the summer months (May to September) to improve the tree’s health.
Campus Tree Canopy

Trees are a major character defining feature of the campus landscape. They define space and provide a contrasting visual vocabulary that complements the man-made campus. Trees stabilize soil, sequester carbon, enhance habitat, provide shade, and improve air quality. Even so, trees have not always been adequately valued and protected in the past. The extent of the tree canopy should be increased to achieve design, educational, and environmental benefits. A succession plan for campus trees and the protection and improvement of tree resources should be a priorities.

A campus-wide system of tree identification should be implemented to support the academic mission of the University. Simple identification plates would be mounted near the base of select trees and keyed to a walking map that identifies a variety of tree walks.
Tree Protection During Design

Trees are an invaluable resource – part of the fabric that makes the campus unique and attractive. Included here are best management practices for protecting and maintaining healthy trees as part of the growth and land development process.

Pre-Project Phase
Prior to any project, a meeting between the design consultant and the University Landscape Architect shall be held to discuss existing trees and site issues. The consultant will be required to prepare a tree survey listing the size and species of all trees on the site.

Design Phase
The design consultant shall prepare a tree protection plan for any project that will have an impact on existing trees. The plan shall be coordinated with the University Landscape Architect and submitted with the project document set. The plan shall show the limits and type of site disturbance (clearing, grading, trenching, etc.), trees to be removed and maintained, location and type of tree protection measures, and existing and proposed utility lines. The University will coordinate the location of utilities in order to prevent root damage within the critical root zones of protected trees. A tree protection measures installation schedule shall be included. Issuance of the notice to proceed shall be conditional on the approved tree protection plan.
Tree Protection Sample Plan

Refer to Civil for existing electric manhole to remain, typical.

Existing boulders can be removed as required for construction, typical.

Provide temporary 6' high galvanized steel chainlink fence.

Existing electrical 4-way switch unit to remain, typical.

Existing trees to remain, typical.

Existing electric manhole and vault, refer to Civil Drawings, typical.

Provide and maintain 6" shredded mulch layer over tree roots at this area during project construction.

Existing trees to remain, typical.
Tree Protection During Construction

Preservation Matrix

1. Not Salvageable
   • All trees within or in close proximity to a proposed building footprint. Alternative footprints to save significant trees must be considered, provided that the alternatives maintain the desired features and costs of the proposed building.
   • Trees of undesirable species or in very poor health. Includes species that have low landscape value or heavily diseased or damaged trees that have little chance of recovering desirable form and function, even if protected from construction damage.

2. Low Priority for Protecting
   • Small trees (less than 10 inches DBH) that fall outside of the proposed building footprint, but are likely to be impacted by construction activities.

   • Larger trees outside of the proposed building footprint with relatively low landscape value. Include species with poor form or with inadequate space to accommodate current or future growth even if the site is ameliorated.

3. High Priority for Protecting
   • Medium (> 10 inches DBH) to large (>24 inches DBH) trees of desirable species with good form, good health, and room to continue to grow.

Construction Phase
Prior to the start of any construction, rehabilitation or utility project, the University Landscape Architect shall conduct a tree inspection of the project site along with the contractor. The contractor will be required to assign a person responsible for maintaining tree protection fencing throughout the construction process. The University may issue a stop work order for any unauthorized departure from the plan, and fines may be imposed to cover soil enhancement and tree replacement costs if damage occurs. The Project Manager will make periodic site visits and report prohibited practices and damage (soil compaction, root severance, wounding, etc.) during construction to the University Landscape Architect. The Project Manager will be notified of the damage assessment and will issue a deductive change order to the contract for the amount of damages. A certificate of substantial completion or notice of termination shall not be issued until the University Landscape Architect has inspected the site to confirm that all existing trees to remain are in a healthy condition and all replacement trees have been planted.
Tree Protection Process Summary

1. University and design consultant conduct a design kickoff meeting.
2. Design consultant, Project Manager and University Landscape Architect conduct a site meeting to discuss existing trees and site issues.
3. Design consultant prepares a tree survey prior to starting design.
4. Design consultant develops and submits a Tree Protection Plan at all phases of project design.
5. University Landscape Architect reviews Tree Protection Plan and approves only when the plan complies with the University’s Tree Protection Policy.
6. Tree Protection Policy and approved Tree Protection Plan are included in the bid documents and highlighted during the mandatory pre-bid meeting.
7. Contractor, Project Manager and University Landscape Architect conduct a pre-construction site meeting to review Tree Protection Plan and inspect existing trees.
8. Contractor submits an installation schedule for tree protection measures and appoints a person responsible for maintaining them throughout the construction process.
9. Contractor installs tree protection measures which are inspected and approved by the design consultant, Project Manager and University Landscape Architect prior to any land disturbance.
10. Contractor’s on-site person monitors tree protection measures throughout construction and refers concerns to University Landscape Architect through the Project Manager.
12. Landscape and irrigation contractors review and adhere to Tree Protection Policy and Tree Protection Plan.
13. University Landscape Architect prepares final damage assessment report and submits it to the Project Manager.
15. Project Manager issues a deductive change order to the contract for the amount of any damages caused by the contractor.
16. Project Manager and University Landscape Architect conduct a final tree inspection to verify that all existing trees to remain are in a healthy condition and all replacement trees have been planted.
17. University issues a certificate of substantial completion.
Tree Protection Terms, Practices & Assessment

Definitions
- Root Protection Zone: The area that is one and a half the distance of the tree canopy dripline outward from the trunk (1.5x the radius).
- Tree Save Area: A group or stand of trees to be protected.
- Tree Protection Fencing: 6’ chain link fence placed on the circumference of the Root Protection Zone.
- Compaction: Soils whose structure has been altered due to vehicular, heavy equipment and foot traffic.
- Dripline: The vertical line beginning at the outermost portion of the canopy of a tree and extending to the ground.
- Caliper: The trunk diameter measured 6” above the ground.
- DBH: Diameter of trunk, measured at breast height (54” above ground).

Prohibited Practices
- Nailing, bolting, using trees as anchorage for ropes, power lines, cables, etc.
- Cutting breaking, skinning and abrasion of roots, branches and bark.
- Damage or removal of the tree protection fencing without approval from the University Landscape Architect.
- Unauthorized filling, excavating, trenching or auguring within the Root Protection Zone.
- Storage of any materials or vehicles within the Root Protection Zone.
- Dumping of construction wasted or materials, including liquids, within the Root Protection Zone.

Damage Assessment
The value of tree damage will be assessed and fines levied up to 100% of the following value:

- 1” – 3” caliper $200/ inch
- 3” – 6” DBH $300/ inch
- 6” – 9” DBH $400/ inch
- 9” – 12” DBH $500/ inch
- 12” – 15” DBH $600/ inch
- 15” DBH or more $700/ inch

Note: While this policy applies to tree protection, protection of shrubs, vines and ground covers within the project site are also of concern. Avoidable damage to these areas that are discovered by the University Landscape Architect shall be assessed to the contractor at 3 times the current market cost of the plants.
Acknowledgments