The purpose of the urban design guidelines is to set forth the basic design principles that will provide a structure for campus development. These approaches to open space, the public realm, building orientation, proportions, and massing will ensure that the campus has a unified identity and scale. Specific architectural expression and definition of landscape should be done in the context within which new construction occurs and will be explored during implementation.

The guidelines contained in this section are Kenwood-focused. As the University moves toward implementing the vision set forth for the Opportunity Sites, design guidelines will need to be established that consider each site’s contextual setting.

The urban design guidelines are organized by the following precincts:

- Southeast Precinct
- Southwest Precinct
- North Precinct

Within these precincts, specific architectural style for building clusters (such as the IRC cluster, the Health/Education/Social Welfare cluster, the Arts district, and the Student Services spine) should be considered.
The Southeast Precinct represents the most public portion of the campus, accommodating The Union, the Golda Meir Library, and a majority of student services. This precinct has a range of landscapes and buildings styles, including the more historic eastern edge, post-modern buildings in the center, and the more contemporary Lubar School of Business along the western edge of the precinct.

Open Space
- Pedestrian corridors are enhanced with new landscape treatment to provide better, more comfortable connectivity between existing quads.
- Spaights Plaza is reconfigured to maintain pedestrian circulation and adequate comfortable seating.
- Transformations to the Student Union and new performing arts facility improve the “front door” on Kenwood and clarify pedestrian access to the campus.
- Primary landscapes are maintained and enhanced, creating a strong campus identity along Downer Avenue.

Connectivity
- A network of indoor and outdoor corridors provides access throughout the precinct and link the informal study and student life amenities at the core of campus.
- Renovations to existing buildings like Bolton and the Library improve ground floor transparency and enhance visual access between inside and outside public spaces.
- Outdoor circulation paths align with existing and new entries to buildings.
- Pedestrian access from Kenwood is separated physically and visually from vehicular access.
Sun and Shadow
- South facing spaces that are well shielded from cold winter winds provide protected climate for outdoor seating in late fall and early spring.

Massing and Facades
- Ground floor transparency enhances visual access between inside and outside public spaces and enlivens outdoor spaces when weather prevents outdoor activity. This transparency should occur where activity is located within the building, not along the entire facade due to the counterbalancing need for energy efficiency.
- Building heights along Kenwood and Downer are scaled to match the neighborhood context (3 to 4 stories).
- Renovations, additions, and new buildings along Kenwood create a human scaled rhythm that creates identifiable arrival points.
The Southwest Precinct will undergo the most change, with the cluster of new Interdisciplinary Research Center (IRC) along Kenwood Blvd and several new health-, education, and social welfare-related buildings along the western edge of the precinct. Given the share of planned new facilities, this portion of campus allows for the most flexibility in building design. At the same time, Englemann Hall is one of the most historic buildings on campus, so buildings and landscape will need to be contextual and complementary.

**Open Space**
- New quads are interconnected by tree-lined pedestrian corridors.
- Buildings are placed to optimize winter solar access to quads.
- Intimately-scaled quads create stronger visual relationships between buildings and provide comfortable micro-climates.
- Design of exterior campus spaces are seamlessly integrated with interior lobbies and circulation spaces.

**Connectivity**
- Interconnected exterior and interior walkways connect all buildings and open spaces in the precinct.
- Interior bridge connection across Maryland Avenue, linking Southwest Precinct to the Union
- Entries to buildings align with exterior pathways.
- Transparent ground levels create good visual access to building interiors.
- Upper story bridges can provide connections to corridors in existing buildings including Lapham, Chemistry and the EMS building.
Sun and Shadow
- New buildings create south facing, wind protected pockets for outdoor seating during the shoulder seasons.
- Buildings are primarily oriented east-west to create opportunities for passive solar, to optimize energy efficiency of buildings, and to shield outdoor spaces from northern winds.

Massing and Facades
- Buildings facing neighborhood streets step down to address two- to three-story residential scale.
- Building edges facing arrival points to campus and interior quads have transparent ground floor treatment.
- Building massing along major streets should be of a human scale with frequent entrances and passageways to the precinct core.
NORTH PRECINCT

The North Precinct is characterized by a large amount of informal open space, represented by Downer Woods. Several historic buildings line the eastern edge of the Precinct, as well as Chapman Hall, which is situated along Hartford Avenue. Enderis and Sandburg Towers represent post-modern structures, and Klotsche and the Pavilion have more contemporary styles.

Open Space
- Woodland landscape is enhanced and extended south to Hartford to bring the Downer Woods experience into the heart of campus.
- Chapman Hall Parking is realigned to extend Downer Woods southward and improve connectivity across Hartford.
- Historic landscape is maintained and enhanced, creating a strong campus identity along Downer Avenue.

Connectivity
- The path network is enhanced and visual connectivity to woods is strengthened.
- A covered walkway from Enderis north to Klotsche is provided.
Sun and Shadow

- South-facing gathering spaces create protected environments for outdoor seating.
- Woods are planted to dampen northerly winter winds.

Massing and Facades

- Buildings facing neighborhood streets step down to address two- to three-story residential scale.
- Building edges facing important pedestrian spines and gathering spaces have transparent ground floor treatment.
BUILDING GUIDELINES

The following building guidelines are intended to assist architects, planners, and campus designers in the design of future facilities and renovations. The recommendations align with the University’s sustainable objectives and desire for high performance buildings. They are intended to address energy use and optimize daylighting opportunities, while achieving a sense of place on campus. The building guidelines address the following categories:

- Building Placement
- Building Setbacks and Build-to Lines
- Building Form and Massing
- Building Heights
- Building Orientation
- Facades and Fenestrations
- Materials and Color
- Ground Level Treatment
- Building Entrances
- Roof Form
- Mechanical Equipment Screening
- Historic Significance
Building Placement
The placement of new buildings should respond to the alignment of adjacent buildings and adhere to the delineation of outdoor spaces as described in the Master Plan frameworks. New buildings should be placed to achieve maximum use of their sites, and to engage and improve the quality of the outdoor realm. Buildings should not block major pedestrian or visual corridors, or encroach on campus outdoor spaces. Building placement should respond to the existing comfort zones on campus, and optimize solar access and shade.

Building Setbacks and Build-To Lines
When designing along street edges, buildings and pedestrian pathways should be continuous and help define the edges of the campus and outdoor spaces. At campus edges, buildings should step back at the second or third level to respond to the lower scale of existing buildings along the street.
Along major streets, buildings should be set back from the street to allow for generous sidewalks and landscape treatment. Buildings should be situated in a manner that balances security and collegiality of the campus, while maintaining an open and welcoming atmosphere.

Building Form and Massing
Buildings should be simple in geometry and avoid excessive widths. Uninterrupted façade lengths should not exceed 125 to 150-feet to ensure a pedestrian scale to buildings. Where possible, building widths should be in the range of 60-feet to allow for daylighting and natural ventilation.

Building form should be modulated to minimize shade on adjacent buildings and open spaces, to protect from cold northwesterly winds in the winter and to avoid the creation of tunnel winds. Corners of the buildings should not be excessively articulated, except when located on a landmark view point. Landmark features should be located at important public places to create a sense of arrival and visual markers for the campus. Building corners and edges should be thoughtfully articulated when they act as visual focal points for key view corridors.

Typically the most public functions of a building, such as the building entrance, should be highlighted in the composition, but its proportions should be appropriate to the building’s use and scale.
Building Heights
Building heights are recommended to be a maximum of 6 floors to create a consistent massing and maximize utilization of campus land. Lower heights should be placed at the edge of campus to respond to neighborhood context, while higher massing should be located at the interior of campus. Sun and wind patterns should be considered when placing higher buildings on campus.

Building Orientation
Buildings should assume an east-west orientation, where possible, to minimize energy load on buildings, and create opportunities to employ passive solar collection and storage strategies. In some instances, buildings can be oriented north-south to achieve placemaking objectives, such as creating a street wall or defining an outdoor space, but should otherwise be avoided. In these instances, east-west facades should be designed to minimize excessive solar heat gain through shading devices.

This diagram demonstrates the optimal building orientation for the Kenwood Campus. For the Milwaukee climate, the proper orientation is south/southeast (Source: ECOTECT)
Facades and Fenestrations

Facade composition and articulation should be restrained, balanced, maintain a human scale, and function as an expression of programmatic elements within the building.

No more than a third of the façade length should be recessed or brought forward from the main plane of the façade. These variations should not project more than twelve feet from the main façade alignment and should be used to mark special façade elements and articulate building entrances.

All facades should incorporate horizontal divisions that highlight a well-defined base, a mid-section that encompasses the majority of the façade, and a top where the building façade terminates. The level of expression of the horizontal divisions may vary to respond to adjacent open space, the level of public uses within the building, and the height of the building itself.

The vertical structure of the building should be expressed in the façade and openings. Windows should be regularly arranged along the façade and aligned on a vertical axis. Windows should be grouped to express program, create larger elements on façades, and decrease the scale of buildings, while the use of strip or ribbon windows and dark or reflective glass should be prohibited to encourage transparency.

Façade treatments should respond to the solar orientation of the building. North-facing facades, for example, should contain less glass due to heat loss, while east and especially west-facing facades should use louvers or shading devices to mitigate direct sunlight. In general, buildings should follow performance-based requirements, such as LEED, for building skin and windows.

Materials and Color

Primary material for campus buildings should be natural in color and texture like brick walls and stone, where appropriate, with metal roofs.

Ground Level Treatment

The ground floors of buildings should contain the most active and public uses. Transparent materials should provide visual access to these areas, and be employed along south facing elevations. Southern facades capture direct sunlight and tend to be where people walk and gather when it is otherwise too cold or windy in the shade.

When facing a public plaza or central open space, the ground floor should be located at the plaza level to emphasize the physical and visual connection between the interior and exterior of the building, and contain inviting uses.
Building Entrances
Building entrances should be aligned with outdoor paths, and reflect the unique or memorable qualities of the building uses. Entrances should create fluid connections between interior rooms and exterior spaces, and provide both physical and visual access to buildings through transparent materials and clarified circulation. Building entries should be defined by building massing, roof, and façade articulation and contain canopies and overhangs for climate protection. Entrances should be limited along north facing conditions where ice will form unless design properly addresses these safety concerns.

Roof Form
Sloped and flat roofs are appropriate on future buildings. Mansard roofs are not recommended on campus. Cornice lines should be properly expressed, and complement the roof structure. The roof treatment on context buildings should also be considered.

Mechanical Equipment Screening
Mechanical and service equipment should be properly screened and mechanical stacks should be grouped together to minimize audible and visual impediments. Building equipment should be integrated in the roof structure. When flat roofs are employed, mechanical equipment should not be visible from ground level or adjacent buildings.

Historic Significance
The campus is predominantly of the modern era; however, there are several buildings that are of historic significance, particularly in the eastern portion of the campus. For buildings planned within historic districts or adjacent to historically significant structures, the Master Plan recommends a coherent, complementary, and contextual integration of building design and landscape. Renovation of these structures should be conducted sensitively and should respect the integrity of the buildings by planning for low-impact space types, such as classrooms and offices. Future renovations should also consider improvements to social space, including student lounge and meeting space. Infill buildings within should respect the scale, proportion, window to wall ratio and detail of existing historic buildings.
Landcape guidelines

Campus landscape design guidelines provide fundamental organizing ideas and concepts for the campus landscape. While the guidelines offer sufficient detail for the design of the campus open spaces, they establish a design direction rather than prescribing definitive design solutions. The following guidance promotes “working landscapes” that embrace, integrate, and embody design, environmental and academic values. The working landscape responds to the climate and natural conditions of the site, working with its features to maximize their functional qualities. The guidelines also seek to achieve a comprehensive campus landscape design that is sustainable and environmentally responsible, economical and practical to maintain, responds to climate and natural conditions of the site, and establishes an integrated environment that enriches the campus experience.

The landscape design guidelines that follow provide a more detailed design direction for the various landscapes on the campus. The goal of the design guidance is to create landscapes with clear, identifiable characteristics that make them distinctive parts of an overall landscape fabric. The guidelines are broken down into three areas that collectively capture the campus landscape, and include:

- Landscape Elements
- Landscape and Plantings
- Paving, Furnishings and Lighting
LANDSCAPE ELEMENTS

Landscape elements on campus consist of campus entrances or gateways, pedestrian corridors, key gathering areas and parking lots. Each of these elements has a specific landscape language that contributes to the larger comprehensive campus aesthetic and is described in detail.

Campus Roads and Pedestrian Corridors
Throughout the campus, street trees will be planted along both sides of all roads and pedestrian corridors to provide shade, a sense of scale, and visual consistency. A continuous shade canopy of deciduous trees will improve pedestrian comfort in warmer months and allow for solar gain in colder months.

Entry Courtyards
Smaller scale courtyards at the entrance to each academic cluster are intended to be intimate, inviting outdoor living spaces suitable for (small) classes or gatherings, or a place to read or study. These entry courts will be planted with shade and/or ornamental trees in a formal arrangement. Decorative paving, special lighting, seat walls, moveable furnishings, benches and other elements will enhance the identity of these outdoor spaces.

Englemann Quad
The passive recreation quad proposed south of Englemann will be rimmed with trees to separate it from the pedestrian corridors on the north, but overall, a sense of openness will be maintained on-site. The field will be planted with turf grass.

Historic Landscapes
Historic landscapes are those associated with the major contributing buildings of the campus, located primarily on the east side of campus. These areas will be enhanced and protected in a manner respectful of the existing character.

Climate Protection (Sun, Wind and Rain)
The guiding principle for all plantings on campus is to respond to the local climate conditions and create an open space framework that provides a sequence of attractive and comfortable spaces, a network of shade and general comfort zones protected from wind, sun and rain.

Along sidewalks and main pedestrian corridors, dense allees of canopy trees are proposed to provide shade in the summer and block wind in the winter, as well as convey a sense of scale and visual consistency.

In campus open spaces, such as campus quadrangles, informal groupings of canopy, evergreen and flowering trees are proposed to provide shade, a sense of scale, and visual interest, and define spaces where people can gather and rest outdoors.

Spatial Definition
Together with buildings and topography, planting is a primary means of defining the scale and character of the campus landscape. Trees are the primary factors responsible for the overall open space organization of the campus. Trees and shrubs establish the limits of views and the structure of outdoor spaces and, in a fundamental way, define the shape, size, sequence and hierarchy of outdoor spaces. The space-defining role of plants should precede the thinking about specific plant characteristics such as flower, leaf texture or branching habit and should precede the thinking about adding horticultural interest and color to the landscape. Trees and shrubs are selected to achieve desired functions and provide spatial definition. They are also essential in making the campus livable in terms of shade and wind protection.

This approach recognizes that the overall spatial order and quality of campus spaces is a principle concern of campus design.

Even though roads and pathways play an important function, the three-dimensional presence and strength of buildings, topographic form, trees and shrubs primarily determine the organization of the campus landscape.

Downer Woods
As a protected landscape, Downer Woods will be maintained as a campus resource and symbolically expand southward to link with Hartford Avenue. The intent is to create a unified landscape expression. Specifically, tree planting will be combined with groundcovers and grass clearings outside the area of the woods protected by legislation (see diagram below) to create both wooded and passive recreation areas.

Historic Landscapes
Historic landscapes are those associated with the major contributing buildings of the campus, located primarily on the east side of campus. These areas will be enhanced and protected in a manner respectful of the existing character.

LANDSCAPE AND PLANTINGS

The vegetative features of the landscape define the natural landscape of the campus. These trees, shrubs and natural groundcover not only contribute to the quality and aesthetic of the campus, but they provide a unique opportunity to translate the tenets of sustainability into a defined landscape language unique to the University of Wisconsin-Milwaukee campus. Plantings on the campus serve a host of environmental purposes from influencing microclimates around buildings and pedestrian zones to humanizing the scale of exterior spaces. The function and value of plants within the campus landscape are summarized in the subsequent sections, while recommended species for specific purposes can be found in the UWM Plant List.
Scale
Size and composition of tree groups, shrub masses and, where appropriate, plant beds should be designed at a scale that is proportionate to their relationship with campus buildings and their landscape context and consistent with regulations set forth by campus security, including roads and open spaces. In most campus open spaces, bold, simple plantings should be employed that are scaled with respect to their surrounding and the larger campus landscape, particularly when adjacent to institutional size buildings and in large lawns and green open spaces of the campus.

More intricate, garden scale plantings are appropriate and encouraged in smaller spaces, courtyards, and entry courts, that are well defined by buildings, walls or other structures. The garden designs, too, should be kept simple and geometric to be consistent with the order of framing buildings and walls.

It is also recommended that small scale annual flower plantings be accommodated, where possible, in planters and large pots rather than in beds in the ground. This method of flower display will be more efficient to install and maintain than bedded plants, and will be more flexible in terms of design.

Plant Suitability & Character
The majority of plants on campus should be selected for hardiness, longevity, general ease of maintenance, freedom from diseases and pests, and ornamental quality. Plant species used should be sufficiently diverse to maintain resilience to known and unforeseen disease or climatic stress that may target a specific species. Plant diversity should not, however, be exaggerated at the expense of visual unity and continuity.

Ideally, plants should be native to the Upper Midwest bioregion. Non-native plants that are used on campus should be non invasive and should present no threat to native flora. They should also have low water requirements, and generally share the visual traits that characterize the dominant regional flora. Plants whose visual appearance diverges or is significantly different from the native flora should generally not be used on campus. The overall purpose of the planting design should be to capitalize on the inher-
ent beauty and climatic adaptability of the native flora. The natural form and character of plants should be retained through proper design and pruning.

**Lawns**
Lawns should be limited due to their considerable water requirements. The new Englemann Field should be planted with drought-tolerant grasses to reduce water consumption.

**Shrubs**
With the exception of hedges, shrubs should be planted in arrangements that allow for their natural shape to be retained, and allow adequate space for them to develop to their natural size either as an individual plant or in shrub masses.

**Trees**
New trees should be planted in sizes that are large enough to have an immediate affect on the quality of the landscape. Tree pruning should be started early in the life of all campus trees to encourage the establishment of a storm resistant branch structure. Tree canopies in lawn areas should be established at a sufficient height to provide clear visibility beneath the trees and to allow adequate light to the lawn areas.

**Planting Character**
In general, the character of campus plantings should be a combination of formal and more naturalistic planting patterns to be able to work with and address a variety of open space typologies, and to establish a hierarchy of campus open spaces.

Formal planting arrangements such as groves and allees planted with single species will help define and structure core open spaces and pedestrian connections on campus. Informal planting patterns are highly suitable for most other campus spaces as they allow for a greater variety of species and ages of plants while maintaining an overall sense of completeness and order.

Aside from tree groves and pedestrian allees, formal plantings include rows of street trees and parking lot plantings, and more formal gathering spaces in the academic core.

For both formal and more naturalistic planting arrangements, it is recommended that plants be organized in groups composed of single species or multiple species that share a high degree of visual similarity. Groups of similar plants will visually tie the campus together.

**PAVING, FURNISHINGS AND LIGHTING**

**Paving**
The Master Plan illustrates the general pattern of proposed roads, walkways and paths for the campus.

Paving recommendations for campus roads and pedestrian paths are as follows:

**Roadways**
The standard material for campus roads shall be asphalt paving with a pre-cast concrete curb system and cast-in-place concrete sidewalks with light broom finish where applicable.

**Pedestrian Pathways**
Standard pavement for the campus walkways for both the east-west and north-south corridors shall be cast-in-place concrete with a light broom finish. Pavers can be included to provide edge definition and horizontal modulation.

**Plazas**
Campus plazas, entry courts, courtyards and gathering spaces adjacent to buildings shall employ richer pavement materials, including colored and exposed aggregate concrete, unit pavers, tile, and brick paving to create a more interesting and diverse surface in these locations.

These pavements should be selected in dialogue with adjacent building materials and flooring to be compatible and ensure a fluid inside/outside connection where appropriate.

**Furnishings**
Specific site furnishings should be selected for use campus-wide. The overall goal for all site furnishings is to create a ‘family’ of site furnishings that are compatible in style and consistent in material and color.

The preferred color for all site furnishings is silver or black (galvanized or stainless steel with powder coated finish).

Benches, Tables and Seats
Movable tables and seats should be located in a variety of settings to allow a choice of scenery and social settings. Within the core areas, movable chairs and tables are recommended as the primary means of providing seating for informal gatherings, outdoor eating, studying and socializing.

In addition to movable tables and chairs, benches should be used along pedestrian pathways, in courtyards and gathering spaces, near building entrances, including vestibules, arcades, porches and other covered spaces.

**Stone Benches and Seat Walls**
Within the academic core or residential areas, stone or colored concrete benches or seat walls can be used to provide seating in or around courtyards, gathering spaces adjacent to buildings, and along main pedestrian pathways. Benches and seat walls shall be compatible in material, pattern and color with immediately adjacent buildings. Capstones should be local stone or precast concrete. Seat walls and stone benches should be set level.

Integrated lighting in both walls or benches should be considered to accentuate certain areas.

**Litter and Ash Receptacles**
The same litter and ash receptacle should be used throughout the entire campus to ensure visual continuity. The University should consider introducing one post-mountable and one ground-mounted trash receptacle across campus that fits both the historic and new campus districts.

The receptacles should ideally be metal with a powder coated finish, matching the color chosen for other site furnishings.

**Bicycle Racks**
In all campus areas, the University should strive for consistency in style and color of bicycle racks. Bicycle racks should be reduced to one movable and one ground-mounted style across the entire campus. Bicycle racks should be suitable for urban riders.

The bike racks should preferably be stainless steel with a powder coated finish, matching the color of other site furnishings.
Lighting

All site lighting on campus should be ‘dark sky’ friendly and avoid light pollution (spill and glare) to the greatest extent possible.

The overall goal for the site lighting is to establish a ‘family’ of light fixtures that are compatible or similar in style and consistent in material and color. The preferred color for all site furnishings is silver or black (galvanized stainless steel with powder coated finish), matching the color of other site furnishings.

Pole Light Fixtures

For all pedestrian areas of the campus, Campus Quadrangles, Campus Parks, Gateways and all pedestrian walkways, the standard fixture shall be a simple, elegant pole top light with a cut-off fixture.

The fixtures shall be mounted at a consistent height throughout the campus, ideally on a 14-foot high straight, round and tapered galvanized steel pole with powder coated finish. Poles shall be anchored on a concrete pad or footing set flush or preferably below finished grade to allow for a continuous paving or groundcover surface.

Accent Lights

For Campus Gateways and Quadrangles, courtyards and ‘gathering spaces’ adjacent to buildings, additional column or bollard lights, or lights integrated in benches or seat walls may be added to accentuate these areas.

Parking and Street Lights

Parking lot and street light fixtures shall be a simple, elegant pole top light with a cut-off fixture.

The fixtures shall be mounted at a consistent height throughout the campus, ideally on a 20-foot high pole.

Poles shall be straight, round and tapered galvanized steel poles with powder coated finish, anchored on a concrete pad or footing set flush or preferably below finished grade to allow for a continuous paving or groundcover surface.