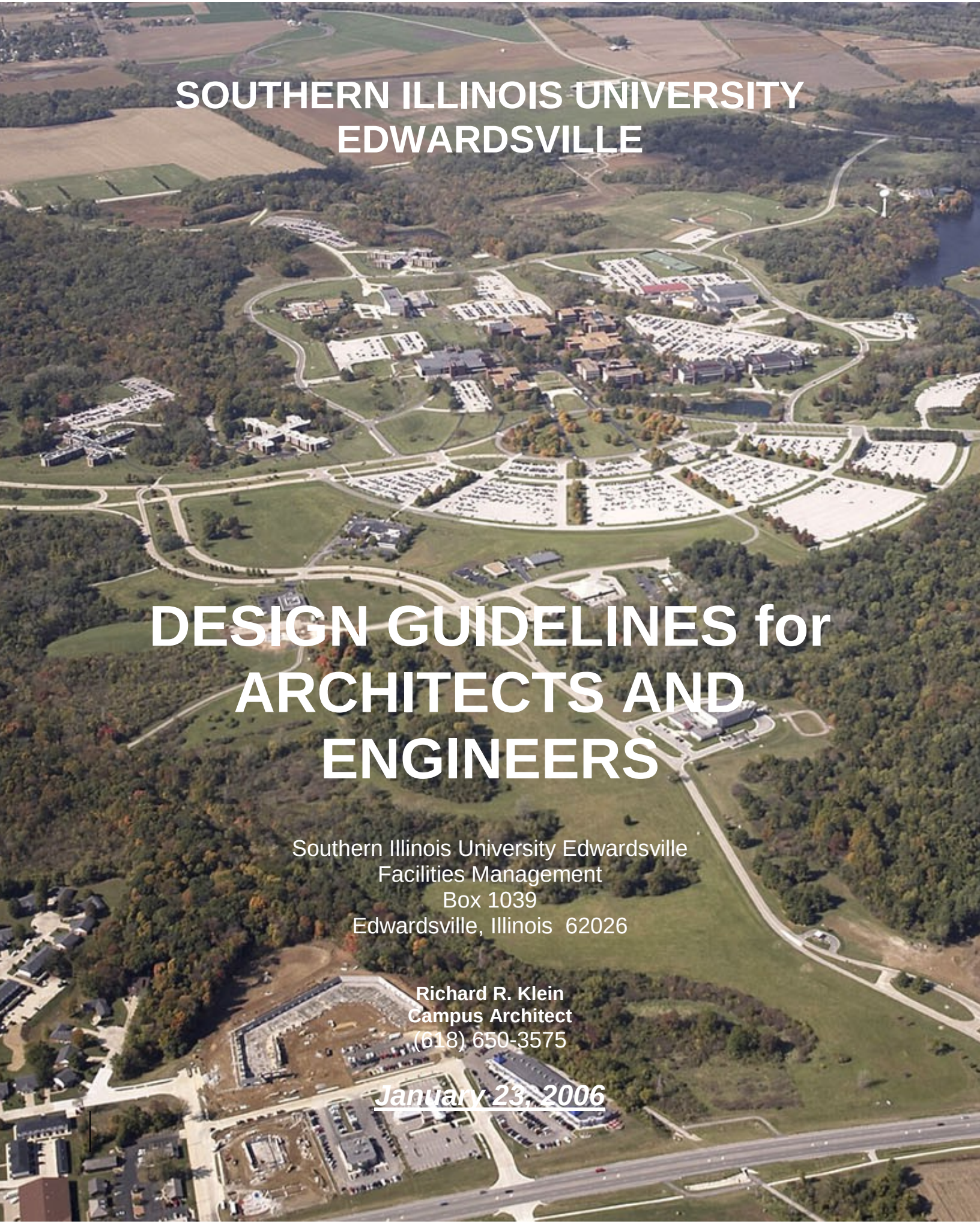

SOUTHERN ILLINOIS UNIVERSITY EDWARDSVILLE

DESIGN GUIDELINES for ARCHITECTS AND ENGINEERS

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January 23, 2006

TABLE OF CONTENTS

DESIGN GUIDELINES

Introduction & Purpose……III
Original Design Concept @ SIUE……..III

LANDSCAPING

Spaces……IV
Plantings……IV

CIRCULATION

Walks, Roads, and Paths……V

SIGNAGE

Coordination and Standardization……..…VI
Exterior Signs……..…VII
Interior Signs……....VII
General Guidelines……...VII

ARCHITECTURE

General……VIII
Massing……VIII
Walls, Windows, and Roofs……VIII
Entries, Accents, and Features……IX
Functionality of Interior Spaces……..IX

FLEXIBILITY FOR EXPANSION

Flexibility……X
Unity Between Old and New……..X
Scale and Unity……XI
Open Spaces and Edges……XI
Building Size……XI
Building Shape, Color, and Texture……XII
Transparency……XII
Buildings Beyond the Core……XIII
Parking Garages……..XIII

PUBLIC ART

Focus……XIII
Art-in-Architecture……XIV
Rotating Student Art……XIV
University Purchased or Donated Art……..XIV

DESIGN GUIDELINES

INTRODUCTION & PURPOSE

The SIUE Design Guidelines is a general philosophy to guide the Architect in developing specific designs for the Edwardsville campus implementing the highest quality of design consistent with campus standards. The guidelines are not intended to be so constraining as to stifle analysis and judgment and predicate design solutions. However, the guidelines should not be interpreted so loosely as to permit entirely different initiatives and conceptual directions. Their purpose is to achieve a balance between the rules set forth and the judgments that must be exercised at each phase of plan development, so that the campus is developed as a whole over an extended period of time. The desired result is a single integrated campus design in which the parts all relate to one another, regardless of when they are built. The Campus Architect is the designated University representative for final decisions regarding design, materials, and related issues. In any situation where the approval process is not clearly articulated, the Campus Architect will review and issue the final approval. SIUE adopts its own building code for which the Campus Architect is responsible to review and interpret. University Park has its own set of standards contained in its covenants.

ORIGINAL DESIGN CONCEPT @ SIUE

Gyo Obata of Hellmuth, Obata, and Kassabaum Architects (HOK) of St. Louis, Missouri designed the Edwardsville campus in the early 1960's. Mr. Obata conceived the idea of a central campus, reminiscent of a small college square, with all facilities located within a circle. All automobiles would be kept outside of that circle, both circulating and parking. The current campus maintains the original concept, except that some parking areas have been added within the circle to accommodate students, faculty, staff, and services.

The second principal design concept developed by Mr. Obata was the building design. All original buildings were three (3) stories above grade with a basement. All roof lines are perceived as flat; no roofing material is seen from the ground. The exterior is highlighted by 4+ story brick towers, which contain stairwells and mechanical services. The brick towers are offset by horizontal bands of gray tinted glazing with black frames and exposed aggregate concrete fascias and projections (often as balconies). The exposed aggregate concrete bands utilize rose quartz aggregate and are a buff color. In addition, all brick is a local blend called "Edwardsville Red", and is a custom color for this campus, and is available for new projects. The mortar is a maroon color, and is critical to maintaining the campus brick color.

LANDSCAPING

Space

The SIUE commitment to open spaces is based upon the large campus land mass developed in the beginning of the "new" campus. The campus core refines the concept by creating quadrangle-type spaces in the tradition of old colleges. The massing and location of buildings is used to create these quadrangles. Currently, Stratton Quadrangle is the only fully defined quadrangle, although several additional quadrangles are planned as new buildings are added to the core.

Plantings

The following principles should be used to guide planting design. Trees, shrubs and hedge plantings shall be appropriate to the scale of the space. Broad stroke use of plants in large rows and masses is preferred to fussy, detailed plantings. Plantings shall reinforce the positively shaped open spaces and not be simply decorative. Plantings shall be functional in defining and unifying streets, paths, and open spaces. Plantings should be simple and restrained, limiting the diversity of species within given groups or rows of trees.

Screening at service areas should be accomplished through the use of evergreen trees. Site walls can be used where space will not allow evergreens for screening. Screening of surface parking and bicycle lots should be done with evergreen hedges.

Smaller courtyard areas and planters may employ smaller scale, more diverse planting in contrast to the simple formal planting of streets and quadrangles. The role of plants in these spaces, however, is the same – to define space and develop a character appropriate to the use.

Plant materials include deciduous shade trees, evergreen trees, ornamental trees, shrubs, and ground covers. The following guiding principles apply to all types of landscape plantings:

- Plant materials should be native to the region whenever possible. Avoid the use of exotic, difficult-to-maintain plant materials. Non-native or exotic plants shall not be used without permission from the Campus Architect.
- Plant materials should be appropriate to this climate zone, and not subject to pests, infestation, or diseases.
- Plant materials should be repeated throughout the campus to provide a sense of order and unity.
- Plantings should be simple and primarily informal.

- When used in mass, plants should be grouped together in clusters of odd numbers of the same plant.
- A sense of openness on the campus should be maintained by not over planting with trees and maintaining a high canopy to preserve views.
- Messy plants or those with thorns should be avoided adjacent to pedestrian walkways or near parking areas and roadways. However, there are special locations where thorny bushes may be utilized to control or direct pedestrian traffic.
- The size of plants at maturity must be considered when developing plans. Mature trees and shrubs should not block windows, graphics, or other building elements. The location of overhead utility lines and building overhangs should be considered in the selection and placement of trees and shrubs.
- Planting designs should be reviewed by the Campus Architect, who will examine the plans with a horticulturist and the grounds department. Items to be considered include exact site conditions and the particular requirements of the plant, ultimate desired size of plant materials versus its potential growth, purpose of the planting, maintenance capability, and desired effect.
- All planting beds should have well-defined edges. Open areas between plants should be covered with a thick mulch of bark, ground recycled materials or stone. Edgings shall be designed to allow snow removal equipment to operate and to avoid damage to the edgings from grounds maintenance equipment.
- Plantings throughout the campus should provide year-round interest with a mixture of evergreens, shade trees, and ornamentals that provide color, texture, and form.
- Formal plantings should be used only in specific settings such as ceremonial areas and major gathering points or as designated by the applicable physical development plan.
- Plantings of annual flowers and perennials may be used in special locations of the campus. Plantings of flowers should be used sparingly and massed to provide an adequate display. Plantings should be arranged to provide room for maneuvering grounds maintenance equipment.
- The University Arboretum has its own set of standards for its landscaping.

CIRCULATION

Walks, Roads, and Paths

One of the SIUE planning principles is to maintain a pedestrian-dominant campus, particularly in the core area. The University strives to balance the need for vehicular traffic and service access against pedestrian accessibility. Parking is generally independent of individual buildings in the core. Service access is necessary and should be planned accordingly, using existing parking areas and pathways as much as possible. No new parking lots are to be located within Circle Drive. At some time the University may construct a parking garage over an existing parking lot.

Patterns of circulation for the campus are built around the idea of using existing roads for vehicles, as well as existing paths for pedestrians and bicycles. Individual design and layout of these paths should emphasize pedestrian movement as the primary means of movement on campus. Conflicts between bicycles, pedestrians, and cars should be regulated by signage that grants the right-of-way to the pedestrians.

Pathways in general are to be eight (8) feet wide, built with asphalt pavement, and have a thickness designed for service and snow removal equipment. Pathways that cross the main roads shall have an accessible sloped concrete transition between the path and the roadway, built in accordance with the latest version of the Illinois Accessibility Code. All bicycle paths independent of pedestrian traffic shall be designed for two-way traffic, with a minimum width of seven (7) feet unless governed by a non-University authority. Paths of exposed aggregate concrete will be considered by the Campus Architect on a case-by-case basis.

Two major area bicycle paths cross the campus, but are somewhat out of the way for use by the University. However, those paths may continue to develop as viable alternatives to the use of automobiles on campus, and should be considered in planning new facilities.

All service drives should be designed to conform to the standards for service vehicles and emergency access, and should suit the specific service requirements of the building. Concrete pavement of appropriate thickness shall be used in the construction of the service drives.

Decorative plazas, quadrangles, and walkways will be reviewed by the Campus Architect. Hard surface materials, such as concrete, exposed aggregate concrete, stone, brick, etc. may be used in conjunction with the overall design of the new building, and should relate to the overall design of the campus buildings, adjacent quadrangles, and walks.

SIGNAGE

Coordination and Standardization

SIUE recognizes the importance of coordinating and standardizing the interior and exterior signage throughout the campus. The value of readable signage is an essential component of facility planning and design. Signage should give priority to providing needed information and directions for the first time or infrequent visitor. The signs will help to unify the University and increase livability. This is achievable by designing a signage system that is an integral part of the campus environment, provides critical information in a legible and easily understood way, and is an effective public information system that projects the stability and high ideals of the University.

Signs are a crucial aid to navigation to all people. An effective and well-designed campus sign system should:

- Provide clear information and directions to destination(s) throughout campus
- Identify the destination at the point of arrival
- Provide basic operational information
- Provide information that is clear, precise, current and consistent

- Complement the architecture of the campus

Placement, scale, and graphic style are important design elements. Placement should be at key decision points. Lettering styles and graphic symbols should be simple, reflect the image of the campus and be compliant with ADA and Illinois Accessibility Code (IAC) guidelines. Signs and graphics should be large enough to be legible from an appropriate distance. Color scheme combinations should be consistent and provide a high degree of visibility, readability and compatibility with other campus elements. All graphics and lettering should have at least a 70% contrast with the background color. In some cases, plain language as the sole content of the sign may be preferable to graphic information. There is inter-relatedness in graphic format and configuration with exterior and interior signs. These consistencies promote a graphic image that becomes recognizable from building to building and throughout campus. It is this familiarity that assists the viewers in obtaining information in an orderly progression.

Exterior Signs

Exterior signs should address directional, informational, identification, and regulatory categories. Exterior signs should be designed to be compatible with the campus architecture and constructed of durable, high-quality materials. Colors and finishes that are reflective of the campus scheme and resist fading should be selected. Designs and materials used should allow for changes to be made with minimum contrast between old and new.

Interior Signs

Interior signs are an extension of exterior signs and should address the same categories. They should also be inter-related in graphic format. All buildings should have directories keyed to a graphic floor plan and strategically placed in prominent locations where major decisions regarding movement or circulation are made, i.e. – entrance points, lobbies and elevators. The color, text, graphics and organization of directories should relate to exterior signs. Directory contents will be CAD generated by SIUE Facilities Management. Room signs will follow the current style, and be in compliance with the Illinois Accessibility Code.

General Guidelines

It is important to recognize that these design guidelines address only items that are consistently used on a campus-wide basis and whose design, content, color, and configuration are centrally controlled. The need for non-standard signs and specialized applications will always exist, and for such situations, sign industry guidelines and standards should provide a guideline for the development of adjunct sign applications. Any non-standard signs must be approved by the Campus Architect.

ARCHITECTURE

General

The community fabric of the campus is reinforced in the way that buildings define and strengthen open spaces and by the way the buildings relate to one another in the composition of massing, materials, and site placement. However, the Design Guidelines have been developed to avoid imposing unrealistic constraints that could result in excessive cost per square foot of construction. It is also the intent of the Guidelines to ensure an architectural expression that is compatible with the main body of the Edwardsville campus without unduly restricting the creativity of the designers. It is hoped that the design for developing regions of the campus will blend with the adjacent areas of the campus in as seamless a manner as possible.

Massing

Adequate land area on the campus allows the limitation of building heights to three (3) stories, plus a basement (walk-out or partially exposed where permitted by the site). The ratio of the footprint area to the height should relate to the original building ratio.

Construction Quality

Our goal is to design and construct buildings with sufficient quality of materials, durability and detailing to ensure minimal maintenance for the lifetime of the building. Buildings should be designed to be functional and useable for a life expectancy of 100 years. Effort should be focused on the building infrastructure to allow technological and functional changes over time.

Walls, Windows, and Roofs

Walls should be brick masonry, stone, precast concrete, or curtain walls. Proposed exterior materials and colors require approval of the Campus Architect.

Windows must be anodized aluminum with insulating glass compatible with the core building materials. Pre-finished metal frames will be considered on an individual basis. Glass shall be energy-efficient and incorporate UV protection. Reflective or tinted glazing will be judged in conjunction with the building design and concept.

Roof design should be consistent with and sympathetic to the adjacent buildings. The core buildings should have perceived flat roofs with a quarter-inch-per-foot minimum slope. Current industry standards suggest Ethylene Propylene Diene Monomer (EPDM) non-ballasted with a minimum twenty-year warranty as the best option for flat roofs. Pre-finished metal coping with concealed fasteners over EPDM flashing and counter flashing enhances the water tightness of the building. Cost may be a consideration when determining the roof material, along with the concept of “Green” design.

Roof projections for the purposes of mechanical, ventilation, and/or plumbing requirements along with roof-top mechanical equipment must be minimized and treated as elements contributing to the architecture of the building. Stacks and vents should be ganged or manifolded together into architectural projections.

Entries, Accents, and Features

The original buildings in the core do not have predominant entries. Those buildings have a number of entries at grade level that do not have readily identifiable "front" doors. The entry doors tend to be contained within the building glass walls or glass bands, and are not clearly distinguishable. Recent buildings in the core have highlighted the entries to enable users to quickly find them, in response to the difficulty of locating an entry on the original buildings. Entries to buildings need to be clearly defined, but work within the context of the core building design. Air-lock foyers must also be used at major entrances. All major entries must be accessible in accordance with the ADA and Illinois Accessibility Code.

Functionality of Interior Spaces

Key to a new building or renovation project is the functionality of the interior. The Consulting Architect is to review the basic design program presented by the University, analyze the program in terms of feasibility to implement the program within the parameters of available space and budget constraints, and to present to the University an appropriate solution. The Consulting Architect is to further examine the program and bring their expertise and experience to determine if the program truly fulfills the needs of the University. The Consulting Architect should see the program as a starting point for study, and work with the University and Campus Architect to develop a functional plan. Interior spaces should fulfill the requirements of the final design program, enhance the usage by students and faculty, and be maintainable by staff. "Green" products should be implemented where practical and cost effective.

"Green Construction"

A popular concept currently is "Green" construction, as defined by the Leadership in Energy and Environmental Design (LEED) from the United States Green Building Council. In general, good architectural and engineering designs plan the building to work within the site and environment. Special emphasis is placed upon the use of recycled materials, new materials that are recyclable at the end of the useful life, and use of locally produced materials. Energy-efficient materials and practice are an integral part of the building design. Life-cycle costs of proposed products and solutions are to be reviewed and will be considered as part of the decision making process by the University. The building (new, addition, or renovation) must be LEED Certifiable, that is, designed in conjunction with the LEED point system so that the University, should it so choose, could have the building formally certified.

FLEXIBILITY FOR EXPANSION

Flexibility

To achieve a degree of flexibility, building components should be designed so that changes can occur. As part of the building design, the charge to the Architect will be to present future expansion possibilities to the University. Buildings are to be designed for a minimum 100 year life, with upgrades to the building systems at 50 years. However, during the course of the building life, modifications will occur, and entire sections may be renovated or modified for new usage. Both the building and the building systems will be designed to strike a balance between initial cost, operating cost, and the ability to be modified in the future.

Unity Between Old and New

Central to the idea of achieving a unified design for the campus is the need to develop clear ties between new and existing buildings. These ties should be visual and functional. Visual ties involve building form defined in fundamental aspects such as size, shape, color, texture, etc. Scale is a critical issue when placing new buildings in proximity to existing. Buildings that possess similar aspects of form will be perceived as a unified group. The more aspects that are similar, the greater sense of unity there will be. The basic goal of new architecture should be to contribute to the visual unity of the campus while expressing its own statement.

The Edwardsville campus is divided approximately between the core and outlying facilities. Core buildings are those located within or along Circle Drive. Outlying facilities are located on sites beyond direct access to Circle Drive. The project Scope of Work will determine if the proposed building should be designed to complement the core buildings, or designed as a non-core building with compatible components. The Campus Architect will review individual buildings for design compliance with these guidelines.

Scale and Unity

The general direction of the campus design is to provide new facilities that employ the basic principals and materials of the original Obata building design concept. Overall, the building proportions tend to be horizontal, which is further emphasized by the linear windows, concrete bands, and flat roofs whose roofline are seen as a horizontal line. Typically, the newer buildings will be three (3) stories above grade and feature brick towers that extend well above the building. Horizontal bands of glazing and horizontal bands of a material compatible to the exposed

aggregate concrete are used to reflect the original design concept. Recent buildings have utilized a buff-colored limestone to emulate the exposed aggregate concrete, although some have continued to utilize the exposed aggregate precast concrete panels. Horizontal glazing bands have been implemented to relate to the original design.

Open Spaces and Edges

Building locations are determined in general from a campus land use plan, which is flexible. Certain areas of the inner circle core campus are designated as ideal building sites, although the current use may be parking. One architect has observed that the buildings tend to be twice as far apart as their height, although Mr. Obata has not stated that particular design feature. The campus is developing the idea of small courtyards or quadrangles as intimate spaces surrounded on four sides by buildings. Visual corridors between series of buildings tend to end with a building as a closure to the vista. The University is a strong, pedestrian oriented campus. As a result, each building does not block the flow of pedestrian traffic, but offers a protected passageway as students and faculty transverse the campus.

Building Size

Recognizing that some diversity enriches the visual environment and humanizes the scale of the surroundings, building size generally should be controlled to maintain a common scale relationship between existing and proposed buildings.

Building heights should typically be three (3) stories or about 40 feet above the general ground elevation. In some locations, a walk-out or partial exposure of a basement level is possible. Some building elements may extend an additional story or more above the main portion of the building, to reflect the brick stair towers that rise above the primary building roof level of the original core buildings. The potential of a taller, landmark-type building may be considered, but would require approval of the Chancellor and the Board of Trustees, and is not a solution likely to be approved.

Building Shape, Color and Texture

Secondary aspects of form, such as building shape, color and texture, should also be made compatible with the traditional standards of University buildings. General building shape should be rectangular, although focus buildings can depart from this convention upon approval of the Campus Architect.

The original buildings were designed in the contemporary style of the 1960's – that is, strong basic shapes and forms with major areas of glazing. A linear emphasis was incorporated as the basic design, with horizontal bands of glass creating the primary shape. The horizontal line was broken by dark red brick stair towers, and in some cases, vertical precast concrete panels. Overall, the buildings project a long, low image, as the height-to-length ratio emphasizes the length. These guidelines are not suggesting duplication of the original style, but recommending that new buildings be designed to achieve the horizontal complemented by vertical components, and to use compatible materials. For example, stone panels have been successfully used in place of the exposed aggregate concrete panels and glass curtain walls used in place of the horizontal glass bands. However, all brick used must be the "Edwardsville Red" brick, available locally from Richards Brick, model number 1A66. Mortar color is to match the existing buildings, and is based upon Solomon Colors number 45H Maroon. Buildings beyond the core have employed red colored concrete masonry units (CMU) and/or jumbo brick with the approval of the Campus Architect. The use of CMU will be reviewed on a case-by-case basis, but natural color CMU is not acceptable anywhere.

University Park has a separate set of Guidelines, and any facility erected there, even if owned by the University, is subject to the review and approval of the University Park Board. Most buildings in the Park reflect materials and styles compatible with the basic University style. Design standards are incorporated into the University Park covenants.

Transparency

The core buildings have a strong emphasis on horizontal bands of glass. The majority of core buildings have gray tinted glass typically set within black frames. This glazing pattern provides a transparency to the building, and provides awareness of activity within and without to enhance the relationship of students, faculty, and staff. Openness is integral to the learning process, and our building transparency is reflective of that open communication. The University is a public space, and encourages open communication between all employees and users, as well as visitors.

Buildings Beyond the Core

Buildings located beyond Circle Drive are generally perceived as "buildings beyond the core". In general, the guidelines for core buildings apply to these buildings located outside of the core area. There are two primary exceptions to the guidelines for buildings beyond the core: sloped roofs and concrete masonry units (CMU) are permitted. Sloped roofs should be standing seam metal. All CMU should be colored units to emulate the exterior colors in the core; gray or standard concrete

masonry units are not acceptable. Metal buildings are normally allowed only in the Supporting Services area. Materials and design will be approved by the Campus Architect.

Parking Garages

Currently, there are no parking garages on the campus. It is possible that the core area building growth may lead to the erection of parking garages independently or as a component of a new building. Parking garages are perceived as austere structures, devoid of personality and interest. When a parking garage is approved, the design should be compatible with the overall core building design delineated within these guidelines. Any design will have to be approved by the Campus Architect. Additional land within the core may not be used for parking lots or garages. It may be desirable to construct a garage on an existing parking lot in the future.

PUBLIC ART

Focus

Public art is art that appears outside of the traditional art settings of museums and galleries and is found in publicly accessible spaces such as quadrangles, parks, classrooms, hallways, lounges, offices, dining halls, sidewalks, and parking lots. It can stand alone or be integrated into the form and function of a building or open space. Art can take shape in the design of a floor finish pattern, a bench, the railings of a pedestrian bridge, the pavers of a sidewalk or deck, or other architectural or landscape element. Simply stated, public art takes an artist's ideas and integrates them into the fabric of everyday life.

Public art is not about decorating the campus. It is a vital element that enlivens and enriches the quality of campus life – providing experiences, provoking responses, creating dialogues, reexamining opinions, and expanding boundaries.

The focus of public art at SIUE is on the display of art work created by SIUE students, faculty, staff, alumni, and Illinois artists. To the extent possible, the design should incorporate University-owned art into new buildings and related site. The art work should fit the space and design of the facility or location.

Art-in-Architecture

The State of Illinois' Art-In-Architecture Program works to promote and preserve the arts of Illinois by securing art work of all media for public buildings constructed with State appropriated funds.

The Capital Development Board spends one-half of one percent of the construction appropriation on the acquisition of art work for new and renovated buildings that are open to the general public. The Fine Arts Review Committee consists of University representatives, community representatives and state officials who oversee each project and select the art work. The Committee meets initially to select the style and/or medium of the desired art work. The CDB Art-In-Architecture Director has a selection of Illinois-based artists in a variety of media styles from which the committee can review and select.

Rotating Student Art

SIUE encourages and recognizes the work of our Art students with a public display of work by students. Each year, Art students submit concepts for art work and a committee from the Art Department selects a number of those for display. Concrete pads have been provided throughout the campus, primarily in the core and the Gardens, for display of the sculpture by the selected students. The art work remains on display for one academic year and is available for purchase thereafter. Some of the art work is placed on display in local parks.

University Purchased or Donated Art

The University may purchase art and cultural artifacts from time to time. The University-purchased art along with art donated to the University by Alumni and Friends is displayed throughout the campus. New or renovated buildings and the adjacent site should incorporate University-owned art into the finished facility. The Museum Director and the Curator review all purchases and donations, and determine an appropriate location for display. Purchased and donated art can be rotated to different locations. Faculty and staff can request that artwork be displayed in offices, conference rooms, lobbies, and similar public spaces on campus. The University Museum Director and the Curator also review and approve the use of the artwork requested by staff and faculty.