DESIGN GUIDELINES FOR BUILDINGS AND LANDSCAPE

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Executive Summary

These Design Guidelines for Buildings and Landscape are intended to assist the Ohio State University as it seeks to strengthen the physical identity of its campus. They serve as a resource for architects, landscape architects and planners contracted by the university, and for decision-makers involved in the approval of campus capital projects.

Design Principles

Through the application of these guidelines the design of campus buildings and landscapes should:

- Strengthen the identity and character of the campus,
- Foster stewardship of campus buildings and spaces,
- Promote the exchange of ideas,
- Enhance environmental sustainability,
- Promote health and wellness.

Design Review Process

While the method of project design approval varies according to project size and scope, the criteria for approval are defined by these guidelines. The review process addresses overall design quality and compliance with approved campus planning documents.

The project design approval process is facilitated by the assigned OSU Project Manager. Design review decisions are made by the Design Review Board, composed of university leaders and practicing professionals. The board reviews projects at several project phases to ensure design quality.

Campus Character

The OSU campus character is defined by the campus' academic core with its distinctive landscape and buildings. Four additional campus contexts have their own unique characters - riparian, athletic, recreation and agrarian. While the character of buildings and landscapes varies across campus, these guidelines seek to reinforce the best qualities of the academic core, extending these qualities across the campus as a whole, and presenting a unified approach to design and a model for future development that reflect both the unique strengths of the OSU campus and common-sense design principles.

Site Selection

These guidelines address all phases of design beginning with site selection during the scoping study phase. They provide direction on siting strategies that address context, visibility, function, circulation, environmental sustainability, development costs, and future expansion. They also provide for open space development that reinforces

Bricker Hall (Joseph N. Bradford, 1924)

Thompson Library (Allen and Collins - 1913; Renovation and addition: Gund Partnership, Acock Associates - 2009)

Wexner Medical Center: Dense development around open spaces.

the existing campus network of open spaces.

Buildings

Building guidelines address the siting, form and scale of buildings and provide guidelines that seek to extend throughout campus the dense development around planned open spaces that characterizes the campus core. Building elements, such as entrances and windows, should enhance the civic nature of the campus by relating directly to open spaces and patterns of pedestrian movement. Architectural details should refer to the vocabulary of the campus' most successful buildings as illustrated in these guidelines. Massing and facade compositions should be simple and logical. Regardless of building function, OSU buildings, including parking structures and athletic and recreational facilities, should adhere to these guidelines.

Designers are provided with recommendations on building materials that seek to achieve a cohesive material palette representing the distinct brand of the OSU campus. The specification of OSU red brick and limestone trim as primary façade materials should apply to all new construction. Analysis of the current distribution of metal assemblies, glass types, window frame colors and roofing material was used to inform recommendations for material choices that are not arbitrary, but that contribute to the OSU material palette.

Landscape

Landscape guidelines provide design and material standards that reinforce a consistent appearance for campus streets, walks and open spaces. They promote the desired campus identity and reinforce the characteristics of each campus context. Landscapes designed and maintained to these standards will reinforce design consistency across campus and meet university goals for long-term maintenance, ease of repair, durability, and financial feasibility.

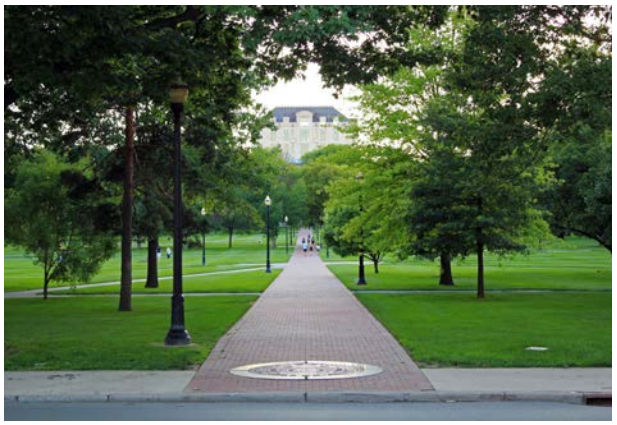
Analysis of the hierarchy of streets and walks led to the designation of primary and secondary types. Based on these types, appropriate dimensional guidelines and materials as well as the desired distribution and type of lighting, furnishings and planting are defined. Within this hierarchy, further distinctions are made for special streets, such as edge streets and parkways, and special walks, such as the Oval Loop, for which unique recommendations apply.

Guidelines are provided for open spaces with recommendations for each of the many open space types identified on campus - quadrangles, courtyards, plazas, building entries and forecourts, gardens, service yards and surface parking lots. Landscapes of distinction are recognized as defining features of the campus that should be preserved and emulated.

A landscape material appendix catalogs the full material palette and provides specifications for acceptable materials.

The Oval: A defining landscape on the OSU campus.

Mirror Lake: A defining landscape on the OSU campus.



Canopy trees and the 'Long Walk' on the Oval.

1. Introduction

The Ohio State University is a public teaching and research university with a strong land grant tradition and a large, urban campus. Since its establishment in 1870, campus planning has responded to the university's evolving academic mission and the growing extent of its campus. Within the framework set by campus master plans, buildings and landscapes have expressed their times leading to an aesthetically-eclectic campus.

Despite the generally eclectic character of the campus, designers of buildings and landscape projects at OSU should look for unifying themes and should seek to reinforce the best physical aspects of the existing campus.

These guidelines establish a general structure for the landscape and building design review processes at OSU. Design teams are challenged to develop designs that reflect the uniqueness of each project's program and site, while enhancing the coherence and uniquely-OSU character of the existing campus.

All projects on campus should be designed in accordance with these guidelines. Design reviews will provide oversight and guidance to ensure that the quality and character of the campus are preserved and enhanced.

2.Design Principles

The designs of architectural and landscape projects at OSU should adhere to the following principles:

Strengthen the Identity and Character of the Campus

- Create an ordered and timeless setting for our academic community
- Strengthen the campus' OSU brand
- Enhance the aesthetic character of the campus
- Invest in civic infrastructure

Foster Stewardship of Campus Buildings and Landscapes

- Preserve and restore significant buildings and open spaces
- Provide adaptability in design to satisfy the varied needs of current and future users
- Prioritize adaptive reuse and renovation, matching building use to building type
- Address deferred maintenance

Promote the Exchange of Ideas

- Maximize opportunities for teaching, learning, and research
- Provide spaces that promote intellectual and social exchange
- Integrate a variety of activities and functions in buildings and open spaces
- Strengthen existing gathering spaces and create new appropriately designed gathering spaces

Enhance Environmental Sustainability

- Conserve the university's finite resources
- Consider environmental sustainability and resource efficiency in all campus construction projects
- Balance initial investment with long-term operating cost
- Require projects to meet multiple sustainable design goals

Promote Health And Wellness

- Provide an accessible and inviting campus environment
- Concentrate on the pedestrian as the predominant user of the campus and its facilities
- Facilitate pedestrian movement, comfort and safety
- Concentrate development within the campus core

3.The Design Review Process

What Does the OSU Design Review Process Address?

- Design quality,
- Compliance with the Design Guidelines,
- Compatibility with The Ohio State Framework Plan and other approved planning documents,
- Compliance with design modifications recommended by the university and its representatives.

Who is Involved in the Design Review Process?

A Project Manager is assigned to each project team and is responsible for facilitating the design review process. The Project Manager provides the project design team with information regarding design review policies and procedures, and coordinates technical review with relevant university groups at appropriate project phases.

A Design Review Board (DRB) reviews major architectural and landscape projects on behalf of the university. DRB members include:

- The Senior VP of Administration and Planning (Chair),
- The Associate VP of Planning & Real Estate,
- A representative of the Provost,
- A representative of the Knowlton School of Architecture,
- The University Architect,
- The University Landscape Architect,
- A practicing architect,
- A practicing landscape architect / planner.

What Projects Are Reviewed?

All projects and studies of potential projects located on The Ohio State University's Columbus campus are subject to design review. The University Architect and Associate Vice President for Planning and Real Estate, in consultation with the Senior Vice President for Administration and Planning, will determine the level of review necessary for each project. This group may also recommend design review for partnership projects, and projects located on regional campuses.

The design review process will vary depending on a project's scale, complexity and location. Some projects will be reviewed by OSU Administration and Planning staff only, while other projects will be reviewed by the DRB. Criteria according to which this distinction is made include:

- Project size and budget,
- Extent to which a project affects landscaping or exterior building appearance,
- Extent to which a project affects campus pedestrian, vehicular or open space systems.

Once a project has been identified as subject to DRB review, an outline of the proposed project scope, location, programmatic intent and project schedule will be provided to the DRB by the Project Manager.

When Are Projects Reviewed?

Projects are reviewed during the Scoping Study phase and during subsequent design phases. The following table suggests when, and by whom, projects are reviewed. The University Architect and the Associate Vice President for Planning and Real Estate, in consultation with the Senior Vice President for Administration and Planning or the Chair of the DRB, will decide when each project is to be presented and reviewed.

The following issues will be the focus of design review during the Scoping Study and Pre-Design phases:

- Site selection,
- Relationship to streets, walkways and open spaces,
- Building siting,
- Building form and scale.

During the Schematic Design and Design Development phases design review will address each of the issues addressed above in addition to:

- Architectural character and materials,
- Landscape character, materials, furnishings and planting.

How Are Decisions Made?

At the end of each DRB meeting, the Chair will summarize the DRB's decisions. The project team will be briefed on recommendations and be given an opportunity to request clarifications. If design changes are deemed necessary, the Project Manager will facilitate further meetings and reviews with the DRB and appropriate university faculty and staff.

	Small Projects	Large Projects	District Projects
Scoping Study	N/A	DRB	DRB
Pre-Design	Staff	DRB	DRB
Schematic Design	Staff	DRB	DRB
Design Development	Staff	DRB	DRB

The suggested level of design review by project phase.

4. Campus Character

The OSU campus character is predominantly defined by a collegiate landscape of large canopy trees, open lawns, and pedestrian walks which form the underlying fabric that connects and shapes the campus experience. University buildings and facilities are grounded within this campus fabric, framing campus open spaces, streets and pedestrian corridors. The Oval both exemplifies and anchors this campus character and provides the fundamental elements that define The Ohio State University campus.

This document intends to elevate the OSU campus experience and character through guidelines for landscape and building projects. New projects should:

- Strengthen campus coherence through appropriate siting of new buildings;
- Promote a range of campus outdoor spaces that support adjacent academic, residential, agrarian and athletic functions;
- Celebrate the campus pedestrian experience through a clear hierarchy of paths and streets;
- Add consistency to the use of building and landscape materials throughout campus;
- Ensure that the form and scale of buildings support the surrounding campus context; and
- Reinforce unique landscape features that are essential to OSU's campus identity.

While the design guidelines are intended to strengthen the physical identity of the OSU campus they also recognize contexts with distinctly different characters within the campus. In addition to the academic core, four contexts outside of the academic core are: riparian, athletic, recreation, and agrarian. Each is characterized by different building and landscape types and by correspondingly different design guidelines. Buildings and landscape should enhance and reinforce the defining characteristics of the context in which they are located.

Academic Core

The Academic Core is defined by closely-placed groups of buildings lining streets or tree-lined pedestrian walks. Courtyards or gardens occupy the spaces between buildings. Buildings range in height from three to six stories in the Academic Core North along 17th, 18th and 19th Avenues to the still larger and denser development in the Wexner Medical Center. The area within the Midwest campus, south of Lane Avenue and bound by the Olentangy River to the east and State Route 315 to the west, includes both the Chadwick Arboretum and Learning Gardens and the Veterinary Medical Center and has characteristics which relate to the Academic Core context.

Development in the Academic Core should promote density and the creation of clearly defined campus walkways, courtyards and quadrangles. While buildings within the academic core may be large, their siting and architectural expression, and the design of adjacent open spaces, should be compatible with the character of adjacent buildings. Main building entries should be located along primary pedestrian walks or streets and service areas should be sited and screened in ways that diminish their visual impact.

Academic Core: Closely spaced buildings define the edges of the Oval and Mirror Lake Hollow.

Academic Core: Consistent cornice height adds coherence.

Academic Core: The Spirit of Women Park

Campus Character

Riparian

The Olentangy River and its tributaries are characterized by naturalized plant and animal habitats. This riparian context should be developed in ways that make it publicly accessible, re-establish its riparian identity, and reinforce it as a distinguishing feature on campus.

Within the Riparian context projects should promote the creation of riparian habitats and the use of native plants. An accessible path system should be provided that connects to major campus paths. Amenities for both passive and active recreational uses should be provided.

Athletic

The Athletic District is comprised of facilities specifically designed and used for athletic programs including practice, training and competition. They have defined areas for spectators.

Projects within the Athletic District should support the function of the specific facility and consider the requirements for the management of athletic events, particularly pedestrian safety and vehicular circulation.

Recreation

Recreation areas are found campus-wide and are intended for multiple recreational uses that support student life. Where possible, recreational land-uses should be designed within a park–like setting with canopy trees and walks that surround playing fields. The park-like setting should recall the character of the Oval with canopy trees at the perimeter and open fields in the center. Large playing fields compete with the university's goal of a densely-developed campus and both buildings and recreational fields should be sited in ways that optimize the use of available land and create orderly and purposeful patterns of playing fields, paths, roads and buildings.

Agrarian

Cultivated productive landscapes punctuated by clusters of utilitarian buildings are typical of the agrarian landscapes in the area north of Lane Avenue. Waterman Lab represents this type, substantiating the university's land grant heritage and contributing to the university's unique identity.

The agricultural fields of the western campus should be developed in ways that maintain their agrarian character. Buildings in this context should be few, should generally not exceed two stories, should have an agrarian character and should be grouped in farm-like clusters. The Agrarian portions of campus should be designed to have edges that are consistent with the adjacent street.

The area north of Kinnear Road and south of Lane Avenue currently lacks the coherence of any of the contexts described above. It is characterized by buildings and landscapes of a varied character resulting from public, private and partnered developments. While this area is characterized by a variety of building and landscape development types, future development should strengthen the university's underlying collegiate and urban characters.

Recreation

Riparian

Agrarian

Campus Character

Athletic

5. Site Selection

The selection of building project sites should be considered during the scoping study phase, and should support both short and long-term goals for campus development. In situations where the siting of a project is not consistent with current planning documents the project team must demonstrate how the project improves upon existing or proposed contexts.

Sites should be both selected and developed in ways that:

- Reinforce functional relationships with neighboring uses,
- Consider the capacity to accommodate future expansion,
- Meet access requirements for pedestrians, bicycles and for transit and service vehicles,
- Maximize infill opportunities, using existing infrastructure and reinforcing the definition of adjacent pedestrian paths, roads and open spaces,
- Maximize options for incorporating environmentally sustainable design principles,
- Minimize site development costs related to clearance, utilities, access, parking, topography, and special conditions,
- Maximize the site value (e.g. the value of this use on the site in comparison to alternative uses for the site),
- Allow site visibility and image appropriate for the intended use,
- Allow for an aesthetic character that is appropriate to the context in which it is located,

Where landscaped open spaces already exist on a proposed project site, projects should:

- Preserve or enhance existing open spaces,
- Develop new spaces consistent with open space types identified in these guidelines,
- Strengthen connections and the overall character of the existing or future open space, roadway and pedestrian path network.

Where open spaces on a proposed project site are undeveloped or under-developed, projects should develop new spaces consistent with open space types identified in these guidelines. Projects located at the perimeter of the campus should define or reinforce established and implied campus edges in ways that clarify the identity of the campus as distinct from the surrounding community.

Smith-Steeb Hall (W.E. Linch, 1960; Renovation & Addition, Sasaki Associates and Schooley Caldwell, 2013) Infill towers were designed to achieve increased housing capacity while capitalizing on existing infrastructure. The project also included open space improvements.

6. Buildings

The following building guidelines are intended to encourage design that will reinforce the best attributes of buildings on campus and strengthen the OSU brand. They should be referred to during all project design phases.

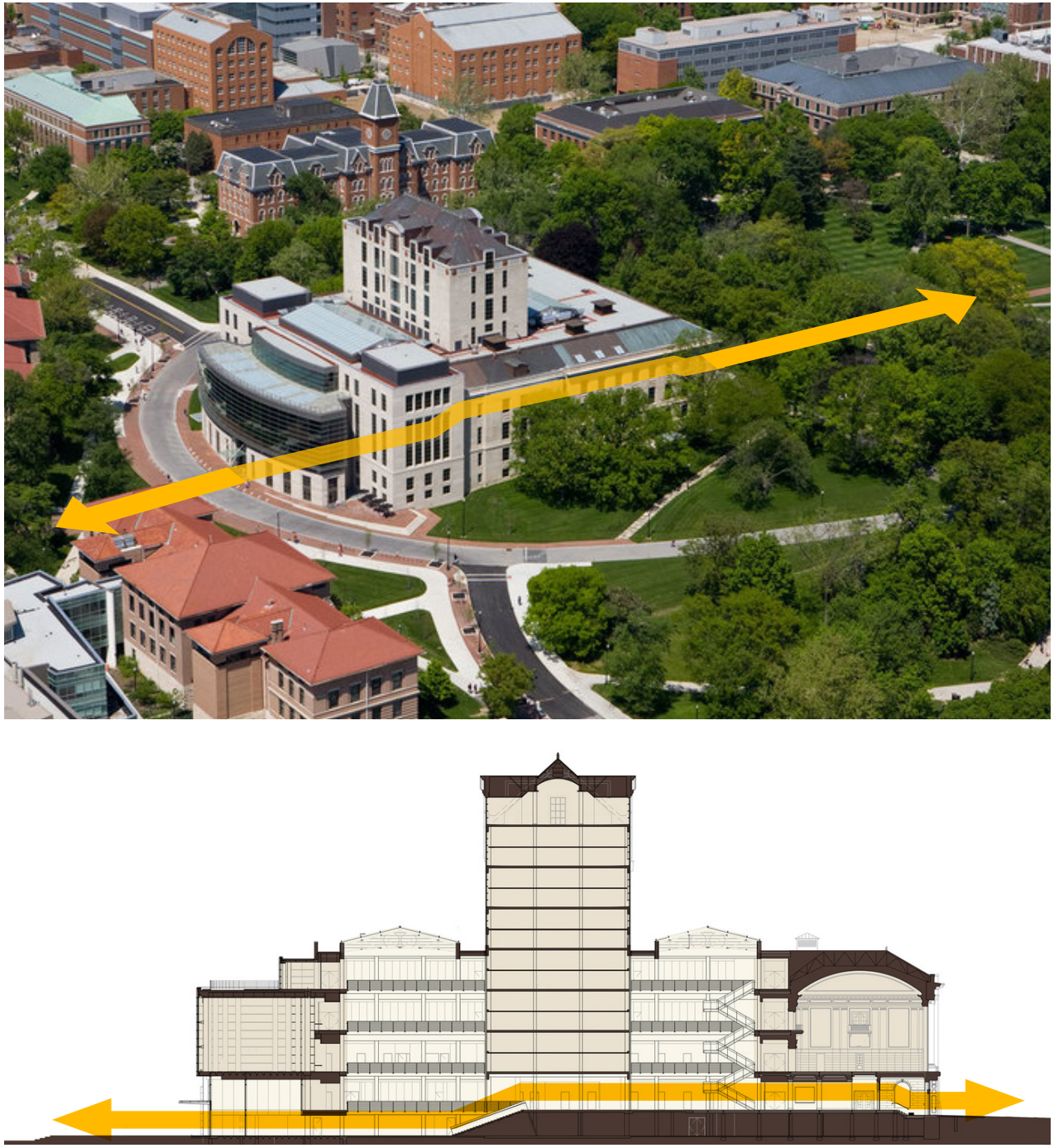
View of the Oval showing the mix of architectural styles and building scales that are features of the OSU campus.

6. Buildings
Siting

Development on the OSU campus should be compact and urban, making the best and highest use of each site and enhancing the energetic, active and pedestrian-friendly character of the campus.

Buildings should generally be orthogonal to adjacent structures and the predominant street grid and should be oriented to adjacent streets, paths and landscaped areas in logical ways, defining outdoor spaces that are deliberate, not residual. Courtyards, gardens and plazas should be outdoor rooms, interconnected with and closely related to both the overall campus fabric and to adjacent buildings and the indoor programs that they house. Social interaction should be encouraged by placing public amenities in prominent ground floor locations. Where possible, direct connections between indoor and outdoor spaces are encouraged.

Building orientation should maximize the visibility of entries and provide clear connections between interior spaces and exterior spaces. The volume and flow of pedestrians to and through a site should be considered carefully. Direct paths through a building site should be maintained where campus circulation patterns are established. Where appropriate, exterior pedestrian paths should pass through buildings (e.g., Thompson Memorial Library and the Psychology building).



Thompson Library (Allen and Collins - 1913; Renovation and addition: Gund Partnership, Acock Associates - 2009) : A continuous path through the building connects the Oval to the Health and Wellness Quadrangle.

View corridors and prominent building facades should be studied carefully during the Scoping and Pre-Design phases. The sustainable design potential of a site should also be evaluated carefully during these phases and should be considered carefully during subsequent design phases. Sun and prevailing wind patterns should inform building design including the orientation of a building and its placement on a site.

Building design should take into consideration the planning and siting of possible future additions to and/or expansions of the facility. Buildings should allow for flexibility to adapt to changes in program or to accommodate future new programs with minimal alteration and damage to historic fabric. This includes issues such as structural and facade bay size, floor-to-floor height, utility distribution and floor plate configuration.

Every new building or major addition has a responsibility to improve the civic character of the campus. The scope should be defined by the area affected by the building. The scope must consider open space, pedestrian paths or streetscapes that are adjacent to the project and require improvements or defined civic structure improvements that are important for the quality of the public realm and have a strong benefit to the district and the university.

Setback

Building footprints and setbacks should, as much as practical, align with adjacent structures producing intentional relationships among groups of buildings. Established setbacks from the street edge should be respected so as to enhance the character of the street. When a proposed building setback varies from setbacks established by adjacent buildings justification should be provided. Buildings should be sited in ways that do not encroach on open spaces or paths (see Streets and Walks for minimum dimensions). Though new buildings will inevitably cast shadows, care should be taken to not cast shadows on occupied open spaces or important walkways. A shade-shadow analysis must be submitted for review during design. The result of this analysis should be reflected in the design of the building and landscape.

While building setbacks are not prescribed, the effect of building placement on open spaces will be evaluated during design review. Where no context exists, or where the placement of adjacent buildings is not appropriate to the long-range development of the campus, setbacks should be established by studies that consider current and/or future open space and streetscape development in the proposed building's immediate context (a "district study").

Building Access

Primary building entrances should be prominent and have a logical relationship to adjacent streets or paths. Entrances should be provided at grade where possible. Where elevated or depressed entrances are required, they should be welcoming and easily accessible from street level. Security and personal safety are important and should guide the location of entrances and associated lighting. The design of buildings and sites should direct pedestrians to paths and to designated pedestrian street crossings.

Safe, convenient access and storage for bicycles should be provided in locations adjacent to streets, approved bicycle travel paths and building entrances.

Service access, trash removal and mechanical equipment should not compromise pedestrian safety or comfort. Service access should be efficient, accommodating more than one building when this is practical. The visual and acoustic impact of these functions on public areas should be minimized.

Scott Laboratory (Ennead Architects and BHDP, 2006) has a prominent entrance adjacent to a major path with convenient bicycle storage.

Knowlton School of Architecture (Mack Scogon Merril Elam and Wandel + Schnell, 2004) provides a plaza at its main entrance.

Stradley Hall (Sasaki and Schooley Caldwell, 2013) provides access through a landscaped plaza.

6. Buildings
Form and Scale

Buildings should be similar in scale to other buildings that front a common street or figural landscape unless the adjacent buildings are incompatible with the long-range character of the district. In general, new buildings should not exceed four occupied stories or seventy feet in height. Specific exceptions may be appropriate, but must be justified on a case by case basis. Buildings on corner sites should relate in scale to both streets and/or paths which they face. Buildings that face a street, path or figural landscape should be located, sized and otherwise designed in ways that establish suitable precedents for future development along or around those landscaped areas.

Where function or program dictate that a building be larger than its neighbors, it should be composed in ways that relate to adjacent buildings. Datum lines, such as cornices and eaves, should be used as organizing elements related to other buildings lining or surrounding an outdoor space. To maintain consistency around quadrangles and courtyards, tall structures should be offset or other façade composition strategies should be employed to reinforce the dominant eave/parapet height around the quadrangle or courtyard.

Thompson Library (Allen and Collins - 1913; Renovation and addition: Gund Partnership, Acock Associates - 2009): The tower is set back from ground-level building facades, minimizing the apparent scale of the building adjacent to pedestrian spaces.

Fisher College of Business maintains a consistent height along the north edge of Woodruff Avenue.

6. Buildings
Architectural Character

The design of buildings and landscapes should reinforce the physical identity of the OSU campus. Architectural expression should also relate to specific attributes of its site, context and use and, where appropriate, should reflect its internal organization.

The design of new buildings and additions should improve connections to campus paths, streets and other landscaped areas. Buildings on landmark sites may justify singular forms that emphasize the artistic qualities of the building and contribute to making the campus a collection of memorable places. However, designation of landmark sites should be documented from approved physical planning studies and confirmed by the DRB.

The design of new buildings and additions should present an image consistent with the building's intended uses. Buildings should provide opportunities for informal teaching and learning outside the classroom. Their design should encourage interaction, promote interdisciplinary collaboration and provide a setting that brings faculty, students and staff together.

Composition

Buildings should be well-composed with attention given to the relationships among their parts. A building's primary compositional elements should be assembled in ways that give coherence to these elements. Large buildings should employ strategies to reduce their apparent scale to be consistent with the dominant scale of the university's academic core.

Building composition should relate to the dominant direction of approach. Building entrances and tall building elements should be located at the ends of significant view corridors or in ways that otherwise clarify wayfinding. Building façades should generally reinforce the prevailing façade alignment along streets and paths, with emphasis where important entrances, interior spaces or other focal points are located.

Simple and strong formal gestures are encouraged but should be informed by an understanding of the human ground-level experience. Buildings and landscapes should be designed in ways that foster social interaction and that support formal and informal gathering.

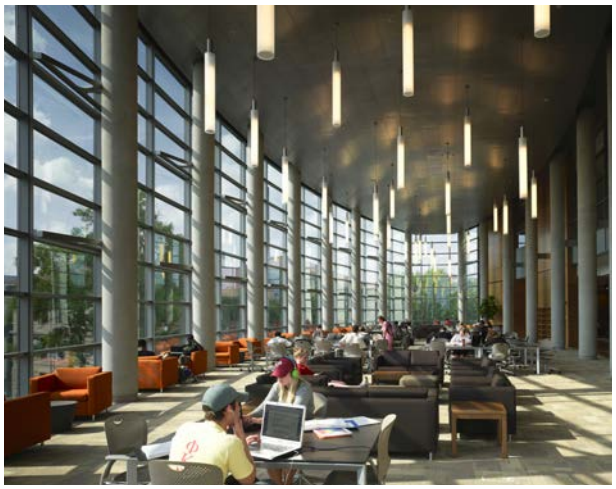
Fisher College of Business (Kallmann, MKinnell & Wood,1999) The building's composition is appropriate to the scale of adjacent streets and open spaces.

Windows

The overall scale and proportions of windows should relate to human scale. The location, size and composition of windows should be appropriate to a building's use, providing natural light in ways that are appropriate to a building's functional requirements. Where possible, occupied spaces within buildings should have views that open toward exterior open spaces.

For window replacements and additions to existing buildings, the essential characteristics of the original windows should be preserved to the maximum extent possible. Special attention should be paid to:

- Proportion, shape and size,
- Overall composition,
- Window divisions,
- Frame and mullion color,
- Spandrel material and color.



The Thompson Library Reading Room has views toward the Olentangy River across the Health and Wellness Quadrangle.

Thompson Library: The addition to Thompson Library exhibits a successful reinterpretation of historic windows complementing, but not competing with the historic building.

Entrances

Building entrances should be easily identifiable, should be highlighted by both building and landscape design, and should be well lit. Lighting attached to buildings should be appropriate to the architectural character of the building, should produce minimal glare, and should focus on entries. Subtle façade lighting is permitted, but must be carefully designed and appropriate to a building's function. Lighting of this type should be reviewed with a full-size physical mock up. Service areas should be well lit in ways that do not confuse them with building entrances.

The use of text and image iconography that is consistent with a building's function, that identifies a donor, or that supports the OSU brand is encouraged.

Canopies or overhangs are encouraged at entrances to protect users from harsh weather. Transparency is encouraged at the ground level of buildings and particularly around entrances to showcase activity within and invite users into the building.

Roofs

Special attention should be paid to the aesthetic quality of building roofs as they are frequently visible from other buildings and from ground level locations on campus. Roof penetrations should be minimized and hidden from view if possible.

Roof-mounted mechanical equipment, antennas and similar equipment should either be shielded from view or designed and composed in ways that are consistent with the design of the building. All stacks will be subject to wind tunnel or computer fluid dynamic analysis. All roof top equipment must be accurately represented in building elevations and models presented to the DRB.

Additions

Additions to existing buildings should adopt one of the following design strategies:

- Create continuity with, and reinforce the best characteristics of, the existing building,
- Be clearly differentiated from, though compositionally consistent with the existing building, or
- Represent an accurate and scholarly extension of the design, materials and detailing of the existing building.

The designers of additions to existing buildings should refer to:

1. "Historic Building Survey and Preservation Management Program" for an assessment of historic OSU campus buildings.
2. "The Secretary of the Interior's Standards for the Treatment of Historic Properties" for guidelines.

Elements of these guidelines are relevant for all additions regardless of the historic nature of the building.

Athletic and Recreational Facilities

Athletic and recreational facilities should be a celebration of the Buckeye spirit and may be more overtly branded as OSU buildings than typical academic or residential buildings on campus.

The requirement for large scale buildings, particularly in the athletic district, should be balanced with façade treatments that are composed and detailed at a human scale. This should be reflected in overall composition as well as in the scale and details of façades. Transparency at entrances and windows should be used in combination with compositional strategies that mitigate the scale of large façades.

The rotunda provides a strong statement of the OSU brand at the entrance to the stadium.

Parking Structures

Architectural design and detailing of the exterior of parking structures should be used to mitigate their scale and provide continuity with adjacent buildings and landscaped spaces on campus. Careful consideration should be given to the design of landscaped buffers between parking structures and adjacent roads and pedestrian paths. Acceptable solutions include providing a liner building (a building used to screen a façade) containing active uses or creating a well-landscaped edge. Careful consideration should be given to garage lighting to avoid light spills from garages and to select light sources with attractive qualities (e.g. color, temperature and color rendition index). Parking structures and the selection of materials applied to them will be held to the same standards as other building types on the OSU campus.

Tuttle Parking Garage: An example of the appropriate integration of commercial uses into the ground floor of a parking garage. The use of OSU blend brick and large storefront windows makes this large structure compatible with the campus.

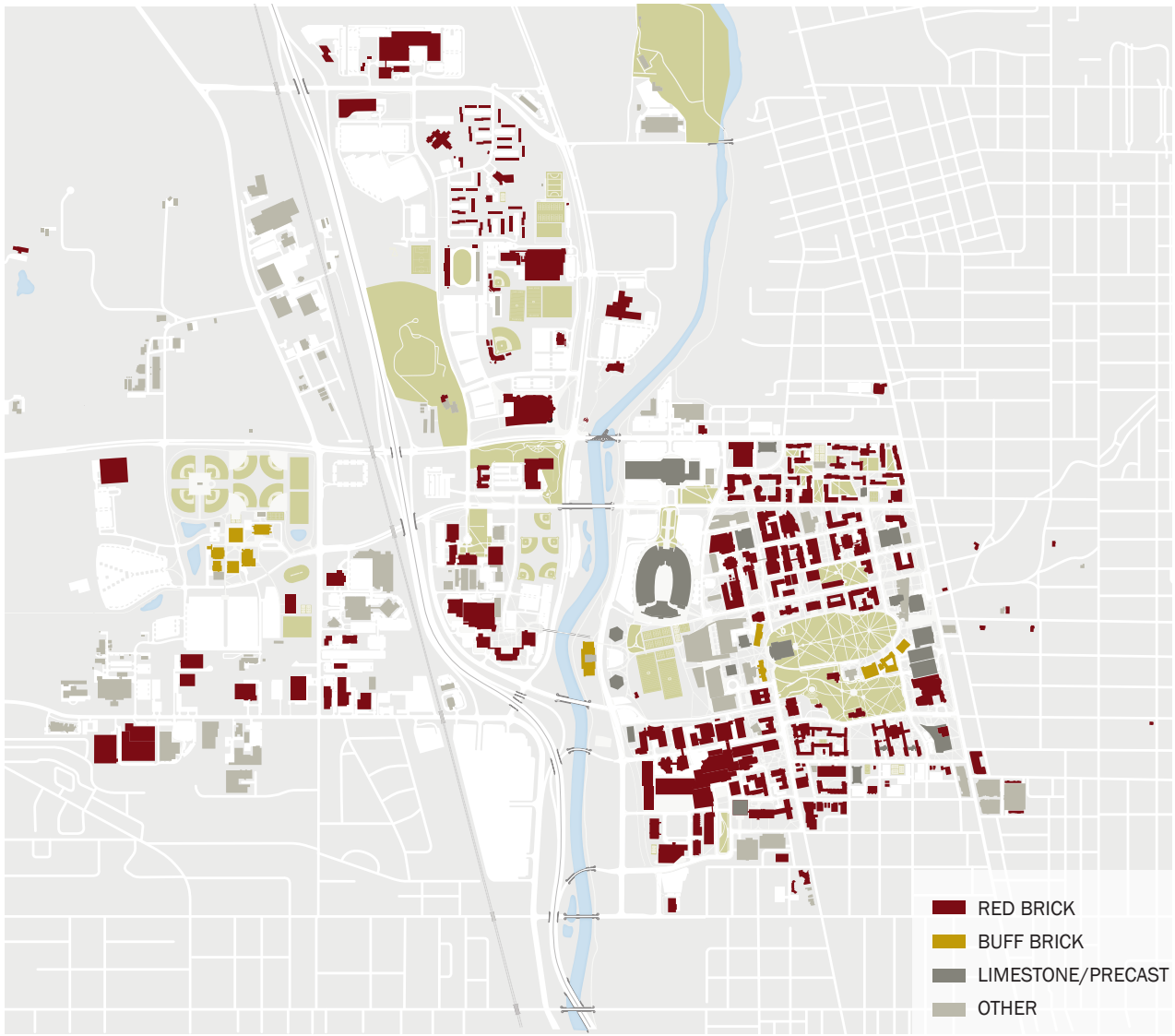
6. Buildings
Materials

Although a variety of exterior building materials are found across the OSU campus, certain palettes of materials have been used consistently and contribute to the campus' physical identity. These include Ohio sandstones used primarily around the Oval (Hayes Hall and Orton Hall), Indiana limestone sometimes in combination with buff brick (Sullivant Hall, Mershon Auditorium, Townshend Hall), and most pervasively red brick trimmed with limestone (Bricker Hall, Smith Laboratory, the Ohio Union and many others).

Designers are encouraged to familiarize themselves with exterior façade materials used on the OSU campus and to be prepared to speak authoritatively about how proposed façade materials and the architectural composition and detailing of proposed façades are appropriate to the physical identity of the OSU campus.

The use of exterior building materials that are not typical to the OSU campus should be reserved for landmark buildings or limited to portions of a building or site for which distinction is appropriate. The designation of landmark buildings will be made by the university prior to the start of design.

A full scale mock-up is required of all significant exterior materials and typical details. The size, design, location and orientation of the mock-up will be determined in consultation with the University Architect.



The current distribution of primary facade materials.

For the majority of projects on campus, contextual coherence should be a driving force. This approach is not limited to academic and residential buildings, but should also be applied to partnership projects, athletic and recreational facilities, and service buildings.

Knowlton Hall: The choice of façade material is atypical to the OSU campus but relates to the adjacent OSU stadium.

Thompson Library: The use of Indiana limestone, clear glass and dark mullions is consistent with the OSU exterior building material palette and with other buildings in the immediate context. The library addition's massing and architectural character distinguish it from, yet are appropriate to, the historic library building.

Allen and Collins - 1913 Tower Addition - 1951.

Renovation and addition: Gund Partnership, Acock Associates - 2009.

Façades

Brick

The dominant façade material in most areas of the OSU campus is red brick.

A sample of campus buildings showing the predominant use of red brick and limestone for buildings of various uses, scales and styles.

Bricker Hall (Joseph N. Bradford, 1924)

Pomerene Hall (Howard Dwight Smith, 1922-1927)

Blackwell Inn (RTKL Associates, Karlsberger Company.,2002)

Smith Laboratory (Howard Dwight Smith, 1951).

Bowen House (Acock Assoc., 2015)

Hopkins Hall (Crumley and Musson, 1959)

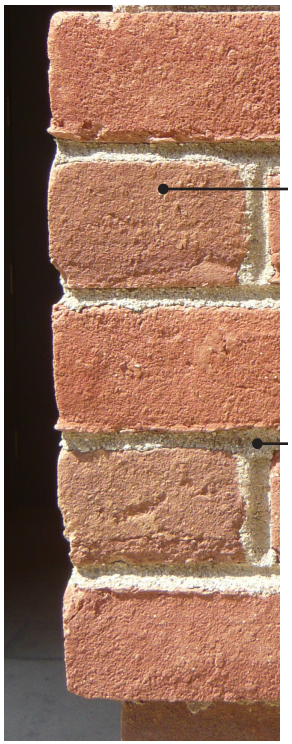
Schottenstein Center (Moody Nolan, 1998)

Wexner Medical Center (various)

1. Fisher College of Business (KMW, Cooper Robertson, 1999)

2. Student Academic Services (Acock Associates, 2010)

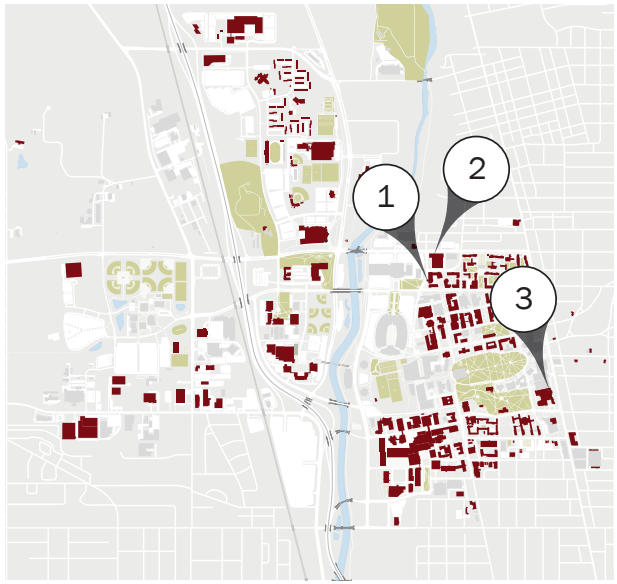
3. Ohio Union (Moody Nolan, 2009)



The specification for future brick buildings at OSU should be:

OSU Blend
Similar to Fisher College of Business and Student Academic Services

3/8" concave mortar joint;
CEMEX Richcolor Custom Colored Cement
Type N: Tan; Product Code: 50
Kentucky Ochre or equal.



The current distribution of brick buildings.

Designers of new buildings are encouraged to use the specified brick, in combination with buff Indiana limestone trim wherever appropriate. Designers are encouraged to consider a variety of brick bonds, profiles and other brick facade compositional strategies.

The brick blend, mortar color and joint for additions or renovations should either match the existing building or a material palette should be selected that is complementary but distinctly different.

Buff brick in combination with buff or Empire Range (buff/gray blend) Indiana limestone is used on several buildings around the eastern and western ends of the Oval. Use of this facade palette is acceptable provided there is a logical relationship to the existing buff brick buildings in the immediate context of the proposed building.

Limestone

Indiana Limestone is used both as a primary exterior building material and as trim and ornament on both red and buff brick buildings. The use of buff or Empire Range (buff/gray blend) Indiana limestone is encouraged as a façade material. Designers are encouraged to consider a variety of stone coursings and finishes subject to justification for why these are appropriate to the project. Granite or similarly water-impervious material should be used in place of Indiana limestone at the base of the building to avoid salt and water damage.

Although Indiana limestone is preferred, precast concrete may be an acceptable substitute provided its color range and finish match Indiana limestone. Large precast concrete samples must be prepared and viewed next to an existing limestone building on campus to assure a suitable match. The use of other stones or synthetic stone products is subject to DRB approval.

Thompson Library (Allen and Collins,1913)

South Residential Towers (Sasaki and Schooley Caldwell, 2013): An example of the successful use of precast panels to complement an existing building's limestone trim.

Sullivant Hall (Joseph N. Bradford, 1912)

Exemplary limestone buildings at OSU.

Metal Assemblies

While a variety of metal façade assemblies are found on the OSU campus, they are generally associated with recreation facilities west of The Oval and athletic facilities west of the river. Future buildings in the athletic district may adopt this material selection but are encouraged to do so in combination with the brick ranges and limestone palette found elsewhere on the OSU campus. The design of metal assemblies should refer to suitable architectural precedents on campus (e.g. metal spandrels used on masonry buildings in the academic core).

Vision Glass

The use of highly-reflective or colored glass is discouraged. Vision glass should be clear. High-performance coatings should reflect with accurate color rendition.

Design teams should consider solar orientation, balancing solar heat gain with a desirable level of transparency. Shading devices should be used to improve occupant comfort when appropriate.

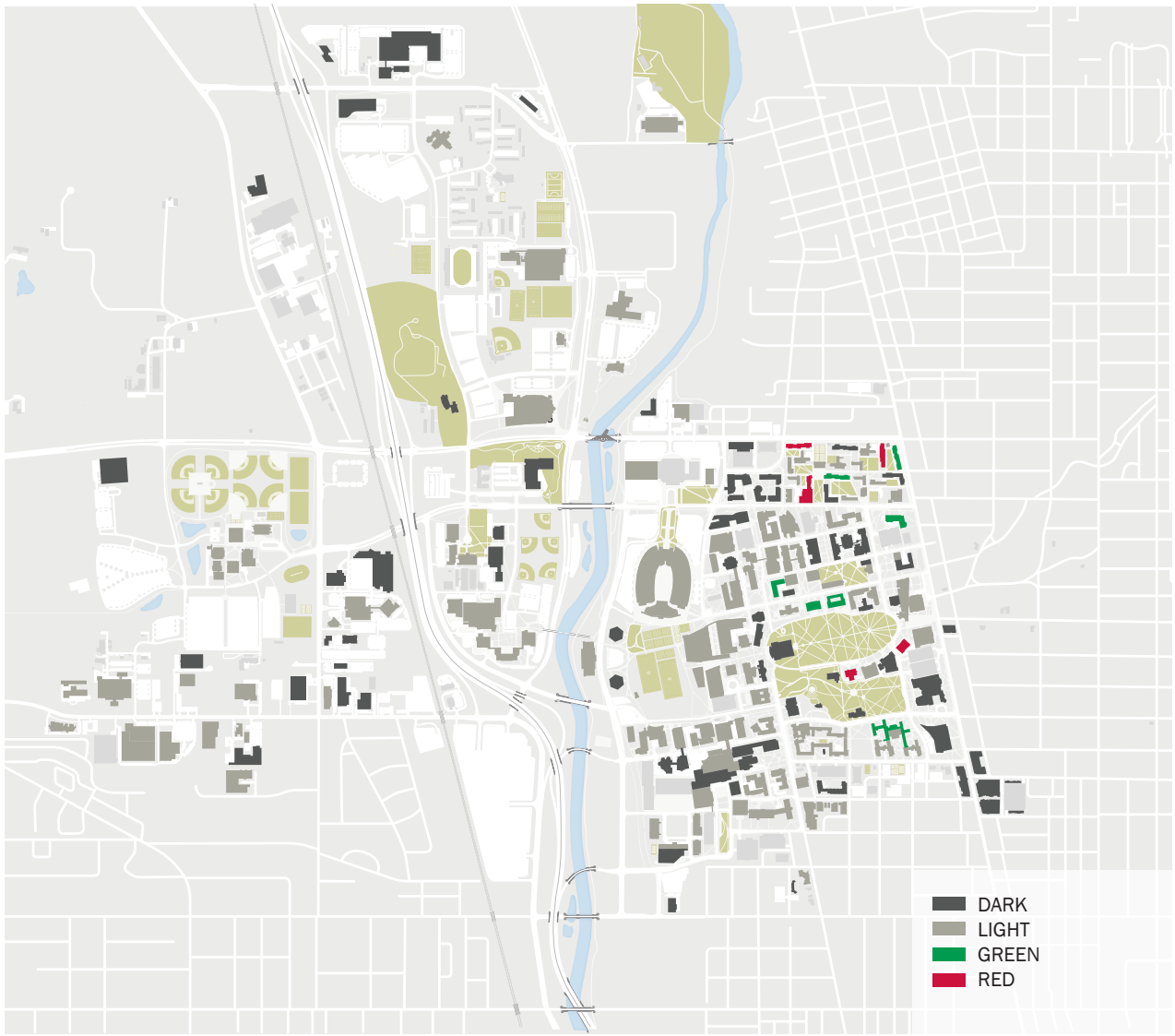
Opaque Glass

Ceramic frit coatings and spandrel glass are permitted. Glass selection, frit patterns and associated details for such applications will be subject to DRB approval.

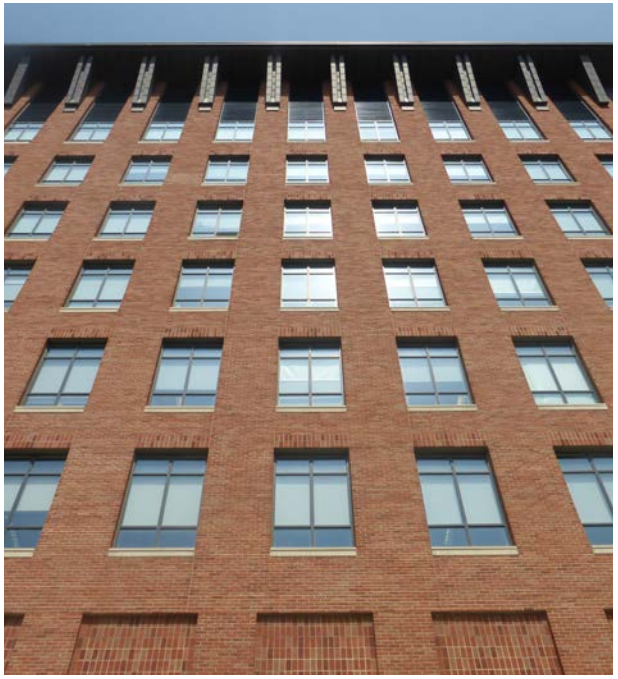
Window Frames

While many window frame colors have been used on campus, future buildings at OSU should have dark frames and reinforce existing patterns. Durable, factory-applied finishes are required.

For window replacements, the original color should be determined by paint analysis and should be preserved unless another choice can be justified to the DRB.



The current distribution of window frame and mullion colors.

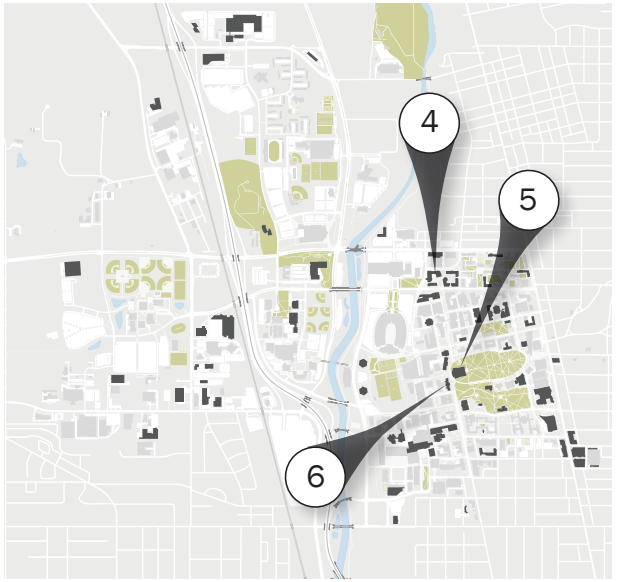


4. Fisher Hall (Kallmann McKinnell & Wood, Cooper Robertson, 1999)

5. Thompson Library (Allen, Collins,1913 Renov. - Gund,Acock, 2009)

6. Townshend Hall (Peters, Burns, Pretzinger, 1898)

12th Avenue: A consistent material palette of red brick and light window frames unifies buildings of varying massing and uses.

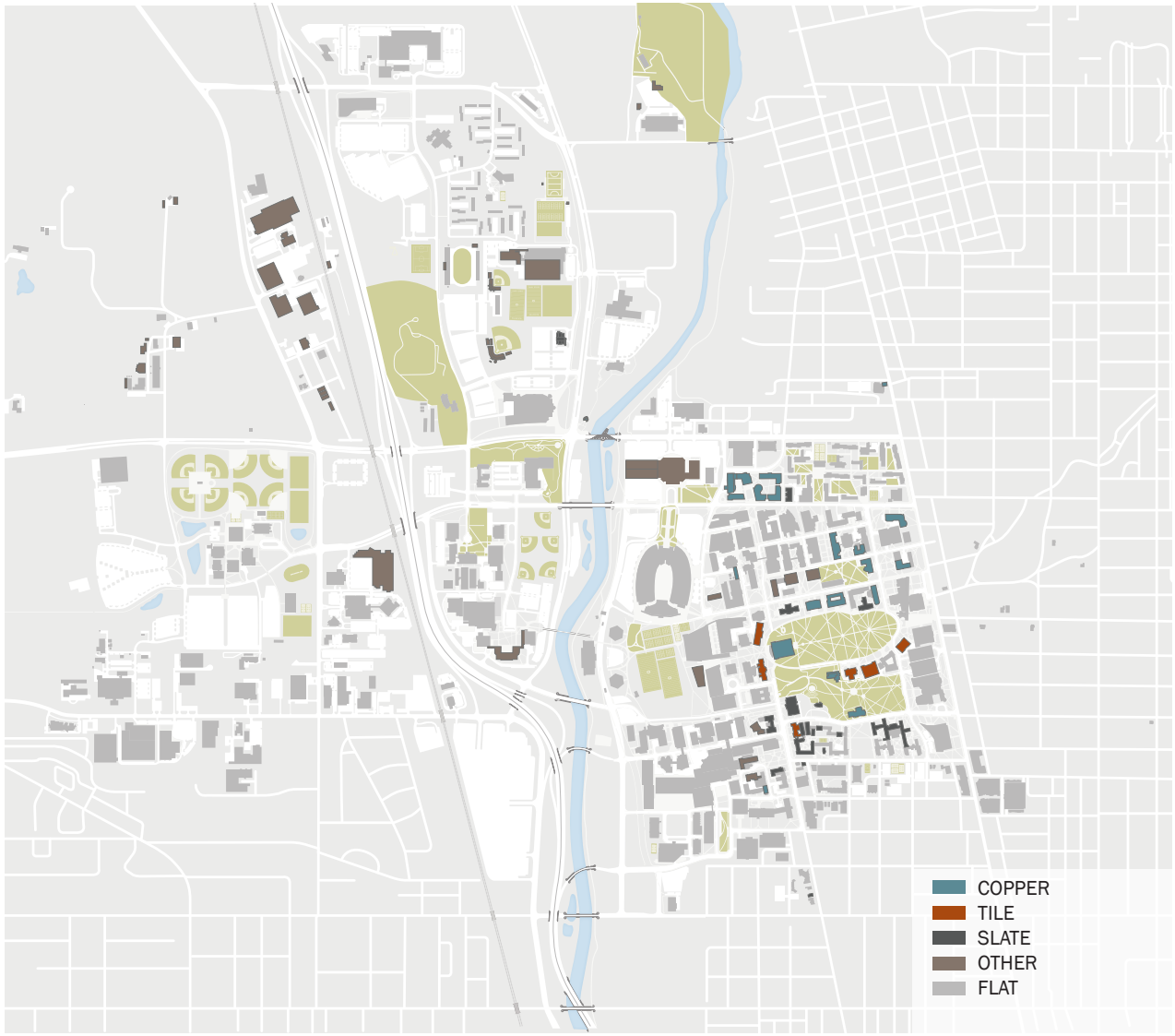


Examples of buildings whose facades represent the three primary masonry materials on campus and the consistent use of dark window frames.

Roofs

The appearance and quality of roofs contributes significantly to the way buildings are perceived. The appearance of flat roofs is important inasmuch as they are visible from taller buildings on campus. These roofs should either use a light-colored membrane, light-colored ballast or be a vegetated (“green”) roof. For new buildings with pitched roofs, the use of slate or metal is encouraged when the material, finish and detailing of these roofs is consistent with high-quality slate or metal roof precedents on campus. When existing sloped roofs within the academic campus core require repairs or replacement they should be repaired or replaced to match the building’s original roof, typically dark grey slate, clay tile or copper.

The use of synthetic slate, concrete tile, painted/factory-finished metal, asphalt shingle or pitch membrane roofs is prohibited.

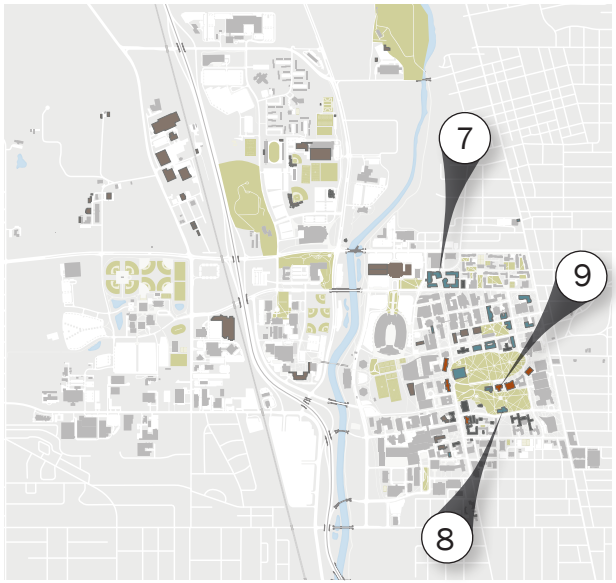


The current distribution of roof materials.

7. Fisher College of Business (KMW, Cooper Robertson, 1999): Copper roof s relate to similar roofs in the historic core and are free of mechanical equipment or penetrations.

8. Hale Hall (George S. Mills, 1911) is situated within the historic core and has a sloped slate roof.

9. Orton Hall (Yost & Packard Architects, 1893) is situated within the historic core and has a sloped clay tile roof.



Examples of buildings whose roofs represent three primary roof materials on campus.

7.Landscape

The University has established campus-wide standards for the types and quality of landscape materials and furnishings. These standards for materials reinforce a uniform appearance for campus streets, walks and open spaces and meet university goals for long-term maintenance, ease of repair, durability, and financial feasibility.

The following landscape guidelines are intended to promote the desired level of physical campus identity and reinforce the characteristics of the defined campus context. Landscape material descriptions and technical data may be found in the Landscape Materials Appendix to these landscape guidelines.

Aerial view of The Ohio State University. The Oval represents the defining character of the campus landscape.

7. Landscape Streets

Campus streets are a major contributor to the overall campus experience and play a critical role in shaping the campus fabric. To bring consistency to the street network, these design guidelines address streets according to a hierarchy of primary and secondary circulation. The hierarchy is based upon the degree to which a street can or should promote pedestrian, bicycle, transit, and motorized vehicle circulation within and across campus.

Primary Streets serve as cross-campus conduits for pedestrians, cyclists, transit, and vehicles, while playing a significant role in defining the campus fabric. Primary Streets are further categorized into either an Edge Street, celebrating campus arrival, or a Parkway where a defined landscape experience is predominant. A Primary Street should have a cross-section that accommodates a varying number of lanes and is consistent in its sidewalk width, site materials, furnishings, and lighting. Tree planting should reflect the landscape character defined for either an Edge Street or a Parkway.

Secondary Streets serve as internal campus conductors of pedestrians and vehicles, and are of secondary importance in the circulation of cross campus traffic. Secondary Streets may vary in their appearance according to their location in a campus district, intensity of foot or motorized traffic, adjacent building use or open space type. Academic, medical, residential and event grounds, for example, will require broad paved walks to accommodate large pedestrian flows. Of special importance are Academic Streets that promote a primarily-pedestrian environment. Each Secondary Street should strengthen campus fabric and facilitate the movement of pedestrians, cyclists and motorists.

For both Primary and Secondary Streets, building setbacks may vary, but should be proportional to the dimensions of the street, district context, adjacent uses, and other factors such as existing street walls.

Existing Secondary Street - Woodruff Avenue

Existing Primary Street - High Street

<u>Approved Street Materials:</u>

Verge:
- Turf in low pedestrian traffic areas
- Red Brick Pavers in high pedestrian traffic areas (Academic Core)

Curbs:
- Granite curbs in the Academic Core
- Concrete curbs in all other locations

Sidewalks:
- Cast-in-place concrete with broom finish and saw-cut joints

Lighting:
- Black Acorn-type fixture on a 14-foot tall fluted ornamental pole (Edge, Parkway Type 1 and Secondary Streets)
- Black Gardco gullwing fixture (Parkways)
- Gray Gardco gullwing fixture (Crosswalks)

Furnishings:
- Bench: Black Steel Ribbon-style bench
- Trash and Recycling Receptacles: Black steel ribbon-style receptacle
- Bike Racks: DuMor loop-style rack

(Note: For all approved materials and products, see the Landscape Material Appendix.)

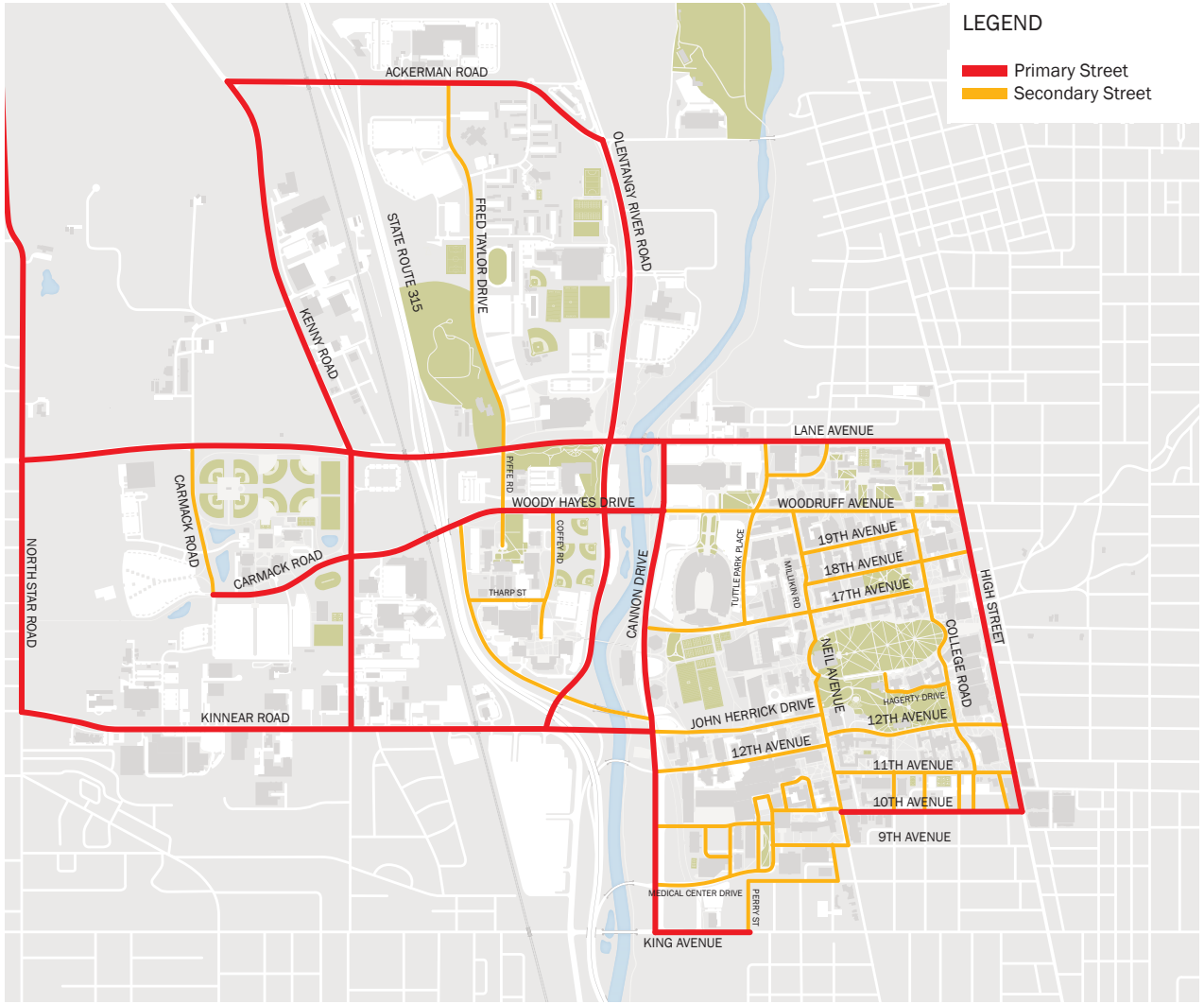
Street Hierarchy

Primary Streets

Lane Avenue
Olentangy River Road
Cannon Drive
Woody Hayes Drive /Carmack Road
Kenny Road
High Street
Kinnear Road
Ackerman Road
North Star Road
10th Avenue (East of Neil Avenue)
King Avenue (Between Cannon Drive and Perry Street)

Secondary Streets

17th, 18th and 19th Avenues
11th and 12th Avenues
9th and 10th Avenues (West of Neil Avenue)
Medical Center Drive
Tuttle Park Place
Hagerty Drive
Vernon Tharp Street
John Herrick Drive
Fred Taylor Drive
Woodruff Avenue
College Road
Neil Avenue
Coffey Road
Fyffe Road



Street Hierarchy

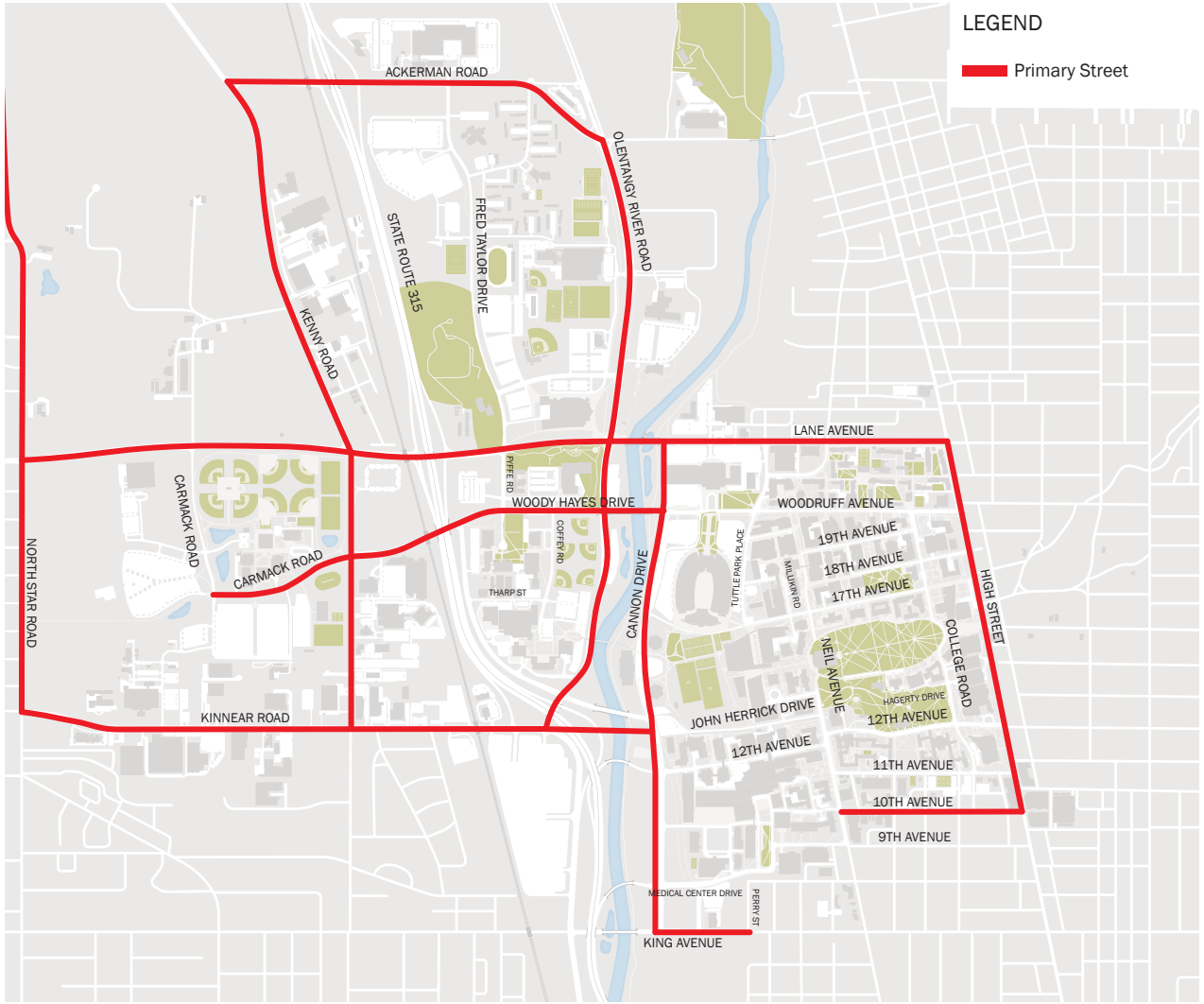
Primary Streets

Primary Streets have the highest intensity of cross-campus use by vehicles, transit, and cyclists. They have the greatest potential to establish a sense of continuity and identity to successfully transition this identity from the campus to the city. Their road cross section, sidewalk widths, site materials, furnishings and planting will vary in relationship to their traffic volume and their function as either an Edge Street or Parkway.

In general: a uniform verge, sidewalk and setback dimension should be established in proportion to the scale of the street. For Primary Streets, sidewalks should be cast-in-place concrete with a broom finish and saw-cut joints. An exception to this is a shared-use path, for which the university may elect to use asphalt. The verge should be either turf or, in areas where the intensity of pedestrian traffic is higher, red brick pavers.

Light fixtures should be the campus-standard fixtures located according to roadway and sidewalk photometric requirements. Tree, pole and sign locations must be designed as a system to ensure optimum light levels, health of the trees and views to both traffic and way-finding signage. Trash/recycling receptacles should be located at street intersections, grouped with traffic and light poles.

All Primary Streets should have a consistent physical design across campus by adhering to the dimensional guidelines indicated in the Edge Streets and Parkway cross-sections.



Primary Streets

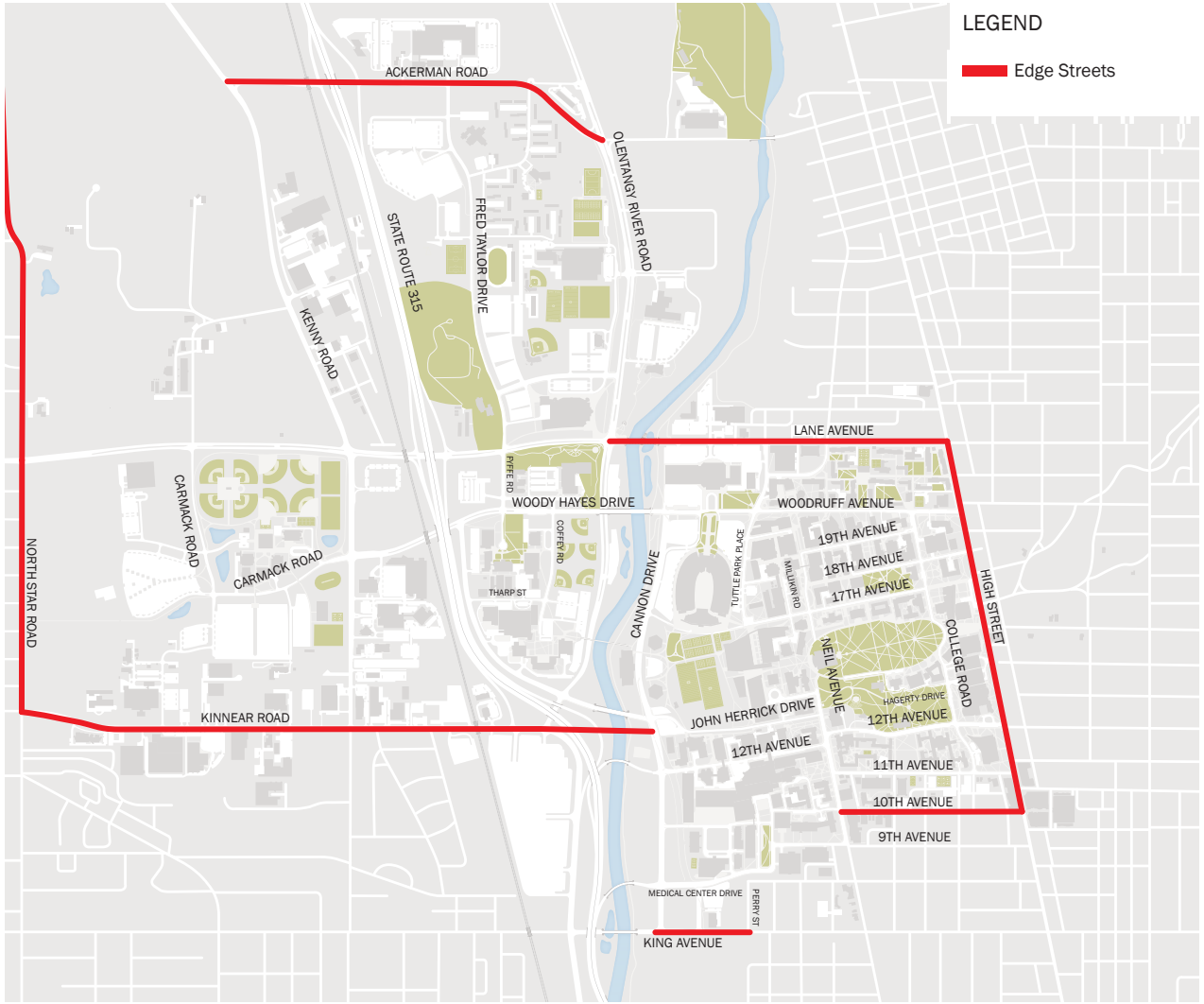
Primary Streets - Edge Streets

Edge Streets are primary streets that play a critical role in defining the campus boundary and the relationship to adjacent neighborhoods and off-campus development. In most cases, they are distinguished from other streets because only one side of the street is campus property and the edge conditions vary.

The OSU side of the street should have consistent tree plantings, walks, and campus furnishings to signify and strengthen the edge identity of campus. Where possible, street trees should also be planted on the opposite side of the street to create a uniform street section.

Street lights for non-residential streets should be campus-standard acorn light fixtures on 20-foot tall fluted ornamental poles, located according to roadway and sidewalk photometric requirements. Street lights for residential streets should be campus-standard acorn light fixtures on 14-foot tall fluted ornamental poles.

Street trees should feature species with red fall foliage, such as scarlet oaks, in a double-row allée on the campus side and where possible a single or double-row on the opposite side of the street.



Primary Streets - Edge Streets

Primary Streets: Edge Streets

High Street
Lane Avenue (East of Olentangy River Road)
Kinnear Road
Ackerman Road
North Star Road
10th Avenue (East of Neil Avenue)
King Avenue (Between Cannon Drive and Perry Street)

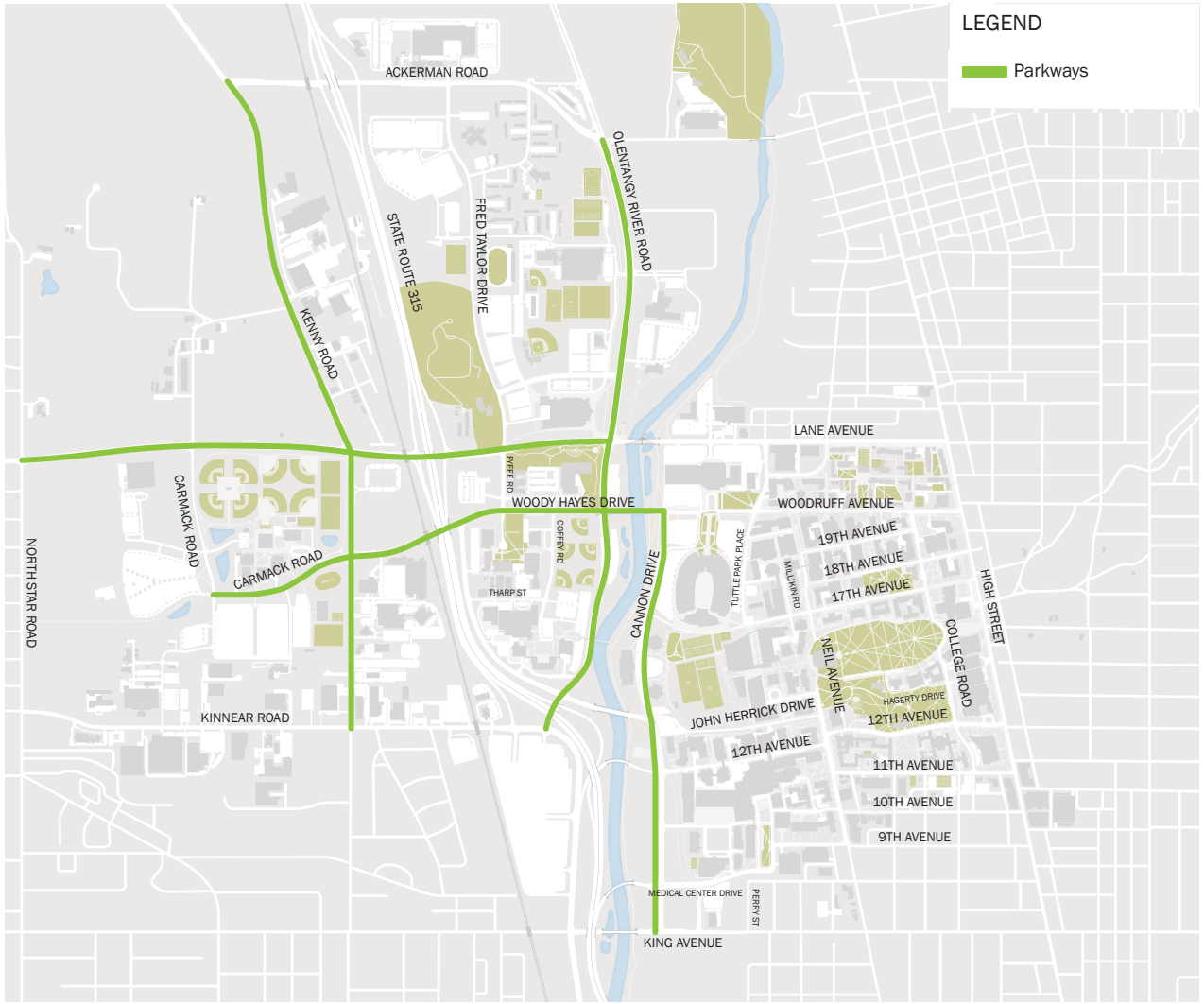
Primary Streets - Parkways

Parkways are broad, scenic roadways that provide cross-campus circulation for pedestrians, cyclists and vehicles while traveling through a park-like setting. Generous building setbacks also contribute to the success of the Parkway.

Medians, if included, should be at least the minimum width indicated in the following Section. Expansion of median width is permissible if it strengthens the overall park experience. See Sections for Parkway variations.

Street lights should be campus-standard black gullwing light fixtures on 20-foot tall poles, located according to roadway and sidewalk photometric requirements. Trash/recycling receptacles should be located at street and path intersections, grouped with traffic and light poles. Gray gullwing light fixtures should be located to highlight safe pedestrian crosswalks. The pole height should match the adjacent street light poles.

Parkway planting should be designed to maximize the park experience through plantings that create a continuous but not necessarily uniform edge.



Primary Streets - Parkways

Parkways

Lane Avenue (West of Olentangy River Road)
Olentangy River Road
Cannon Drive
Woody Hayes Drive/Carmack Road
Kenny Road

Secondary Streets

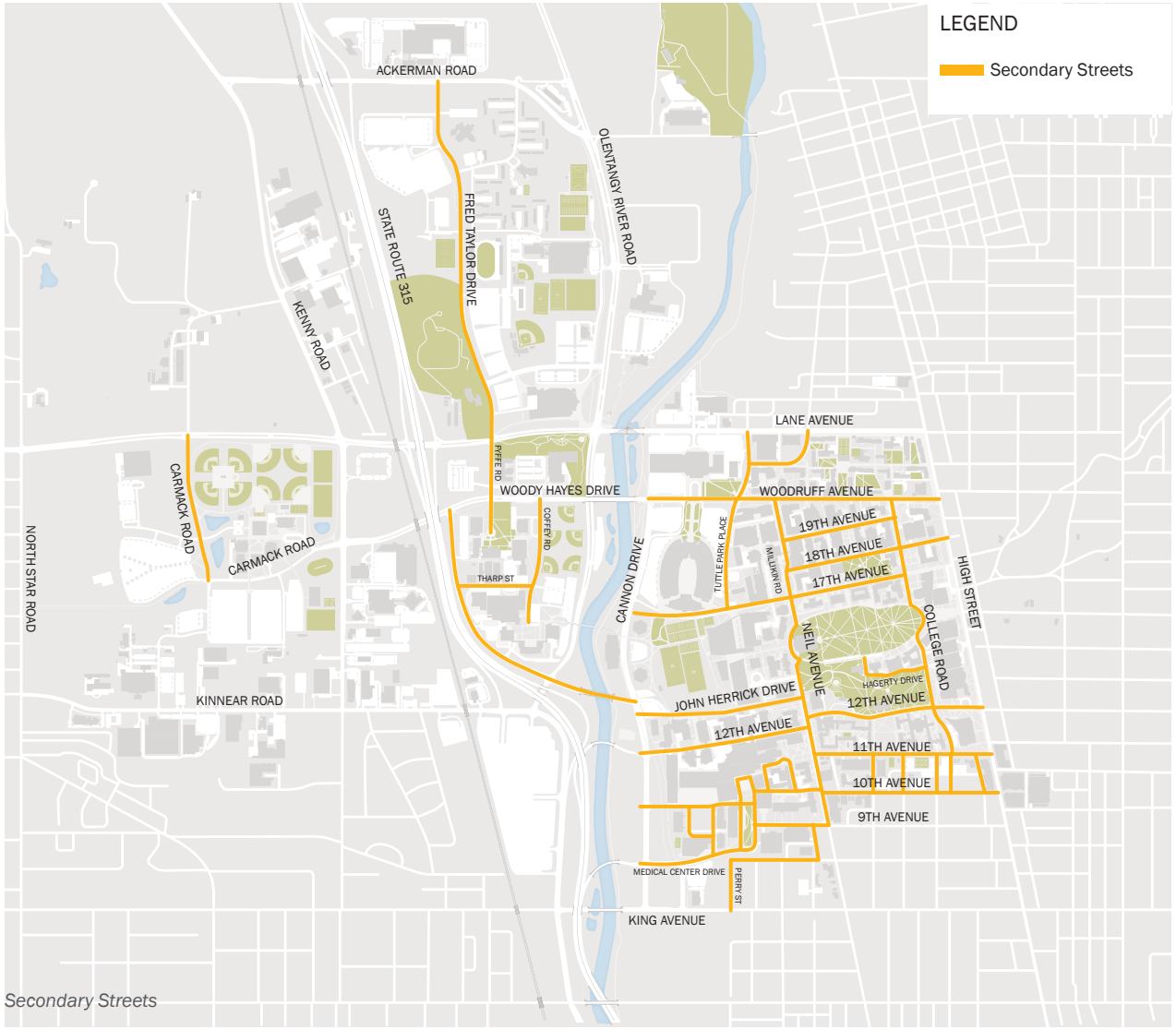
Secondary Streets generally have a higher intensity of pedestrian use than Primary Streets and are not typically used for cross-campus vehicular circulation. The design of Secondary Streets should strengthen the surrounding campus character while improving circulation and the pedestrian experience.

In general, a uniform verge, sidewalk and setback dimension should be established in proportion to the scale of the street. Some Secondary Streets, such as Neil Avenue, College Road, Woodruff Avenue and John Herrick Drive east of Cannon Drive, have greater setbacks. For consistency, sidewalks should be cast-in-place concrete with a broom finish and saw-cut joints. The verge should be either turf or, in areas where the intensity of pedestrian traffic is higher, red brick pavers.

Street lights should be campus-standard acorn light fixtures on 14-foot tall fluted ornamental poles, located according to roadway and sidewalk photometric requirements. Tree and pole locations must be designed as a system to ensure optimum light levels and the health of the trees. Trash/recycling receptacles should be located at street intersections, grouped with traffic and light poles. Gray gullwing light fixtures should be located to highlight safe pedestrian midblock crosswalks. The pole height should match the adjacent street light poles.

Street trees should be planted in regular intervals appropriate for each species to form a continuous canopy.

All Secondary Streets should have a consistent physical design across campus by adhering to minimum dimensional guidelines described in the Secondary Street cross-section.

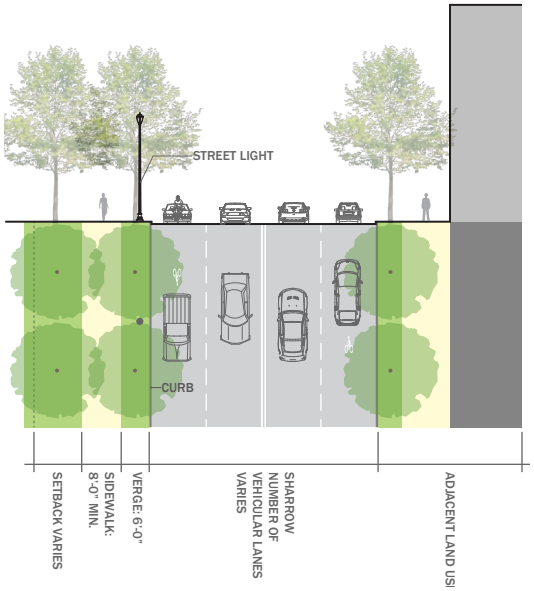


Secondary Streets

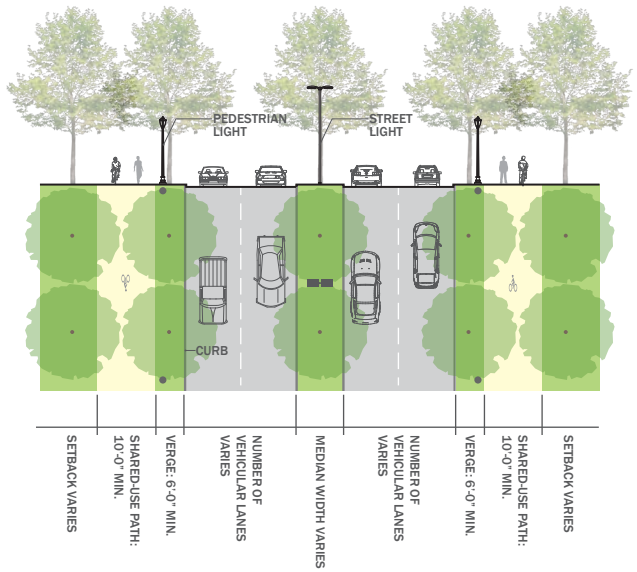
Secondary Streets

17th, 18th and 19th Avenues
11th and 12th Avenues
9th and 10th Avenues (West of Neil Avenue)
Medical Center Drive
Tuttle Park Place
Hagerty Drive
Vernon Tharp Street
John Herrick Drive
Fred Taylor Drive
Woodruff Avenue
College Road
Neil Avenue
John Herrick Drive (East of Cannon Drive)
Coffey Road
Fyffe Road

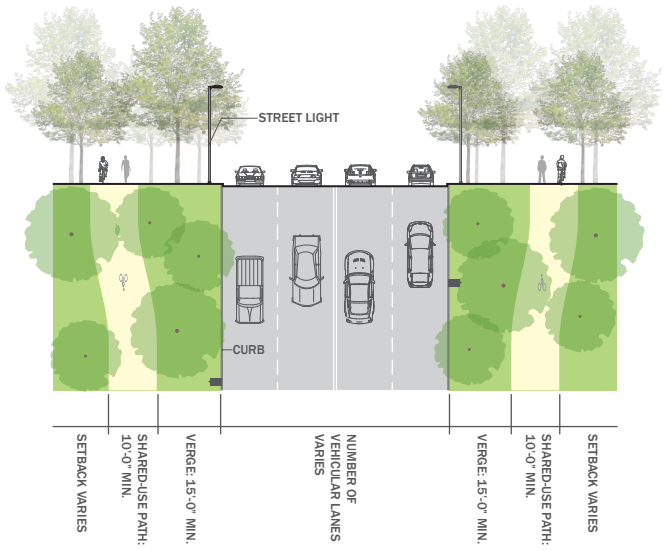
Primary Streets



Primary Street: Edge Street Cross Section

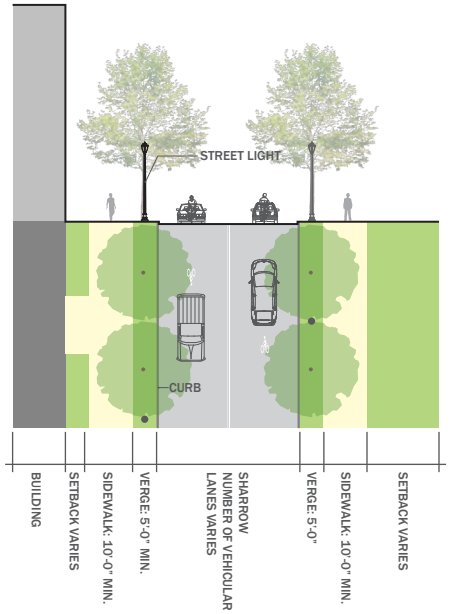


Primary Street: Parkway Type 1 Cross Section



Primary Street: Parkway Type 2 Cross Section

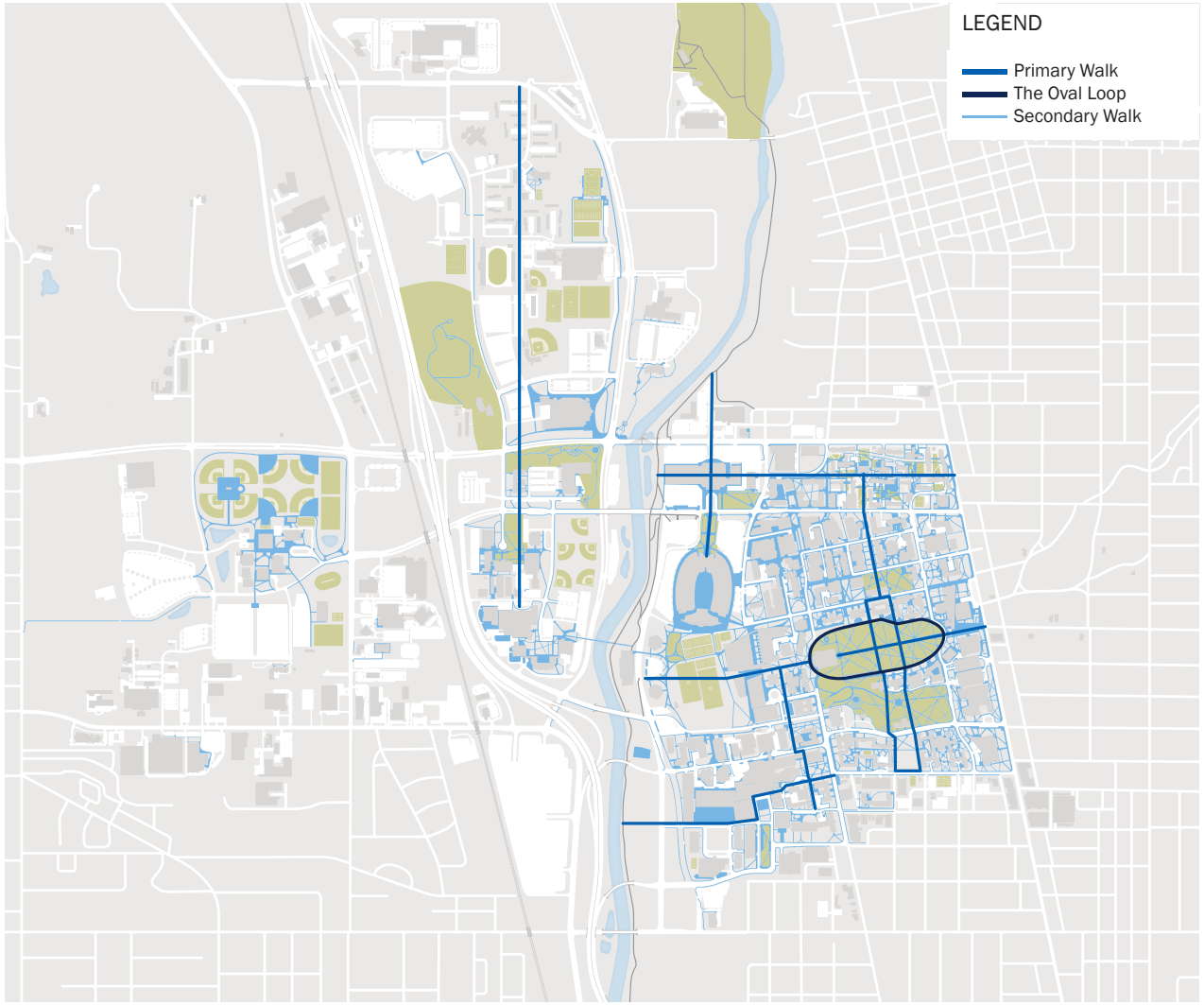
Secondary Streets



Secondary Street Cross Section

7. Landscape Walks

Walks are pedestrian paths that are independent of streets and are part of the internal campus circulation. Like streets, campus walks are defined by a hierarchy according to their level of foot traffic and pedestrian movement across campus. The following guidelines are divided into Primary and Secondary Walks, each with its own characteristic treatment of dimensions, materials, lighting, and site furnishings. It is important that walks be designed to establish continuity and campus identity.



Walk Hierarchy

<u>Approved Walk Materials:</u>
Pavement:
- Red Brick Pavers
- Cast-in-place concrete with broom finish and saw-cut joints

Lighting:
- Black Acorn-type fixture on a 14-foot tall fluted ornamental pole (Edge and Secondary Streets)

Furnishings:
- Bench: Black Steel Ribbon-style bench
- Trash and Recycling Receptacles: Black steel ribbon-style receptacle
- Bike Racks: DuMor loop-style rack

(Note: For all approved materials and products, see the Landscape Material Appendix.)

Primary Walks

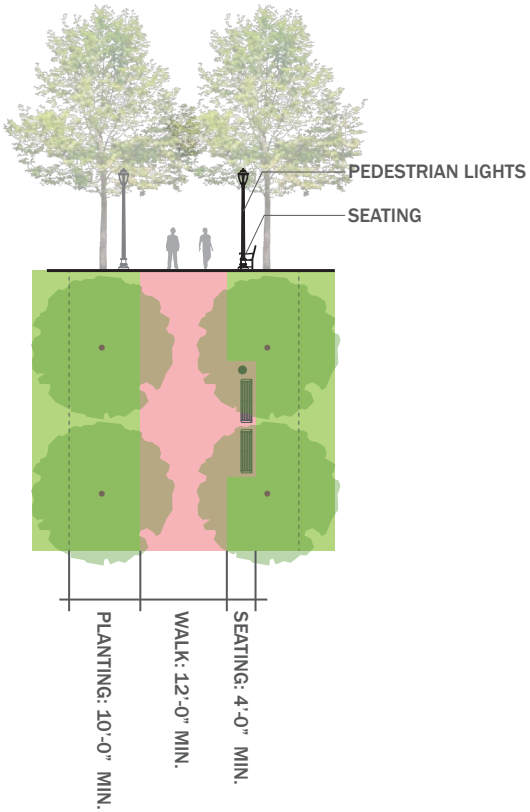
Primary Walks support the highest volumes of cross-campus pedestrian traffic. The Oval Long Walk successfully exemplifies a Primary Walk that defines the enduring character of the OSU campus through its generous scale and use of red brick pavers.

Red brick pavers should be used to celebrate the most highly visible and the most heavily used Primary Walks. In all other locations, the paving material should be cast-in-place concrete with a broom finish and saw-cut joints. Where a Primary Walk intersects with a Secondary Walk, the Primary Walk should remain continuous in its material and patterning.

Primary Walks should emphasize pedestrian comfort through the use of canopy trees, benches, light pole and trash/recycling receptacles. In all locations, benches, light pole and trash/recycling receptacles should be grouped to minimize clutter. Benches and trash/recycling receptacles should be located to support the program of a walk or open space. Avoid locating isolated benches in open lawns and plazas.

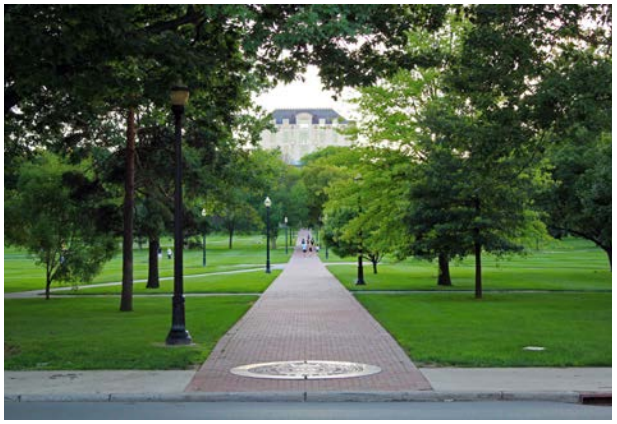
Primary Walk lighting should be the campus-standard acorn light fixtures on 14-foot tall poles, located according to photometric requirements. Light levels should create a safe environment for all users while not over lighting a walk or space.

Primary Walks should have a consistent physical design across campus and adhere to minimum dimensional guidelines described in the Primary Walk cross-section.



Primary Walk Cross Section

Exemplary Primary Walk - Locust Walk, University of Pennsylvania

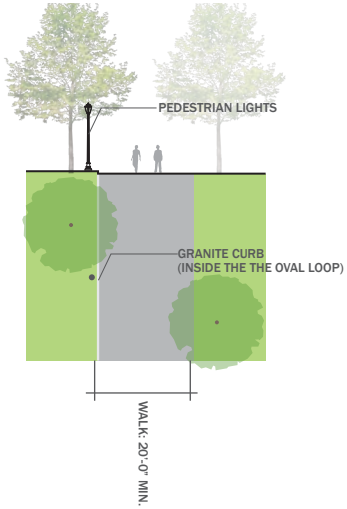


Exemplary Primary Walk - The Oval Long Walk, OSU

The Oval Loop

The Oval Loop has been identified as a special condition on campus. The Oval Loop should have a consistent physical design. The paving material should be hexagonal asphalt pavers with granite curbs on the interior side and metal edging on the exterior side of the loop.

The extent of the Oval Loop



The Oval Loop Cross Section

Existing Oval Loop, OSU

Secondary Walks

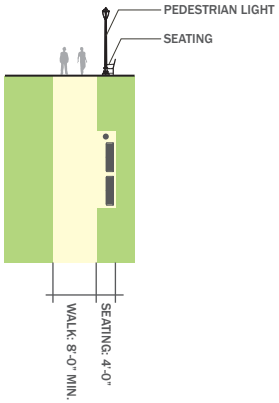
Secondary Walks have a lower intensity of pedestrian use than Primary Walks and do not support cross-campus foot traffic.

Secondary Walks should be cast-in-place concrete with a broom finish and saw-cut joints.

In all locations, light pole and trash/recycling receptacles should be placed in groups to minimize clutter. Benches and trash/recycling receptacles should be located to support the program of a walk or space.

Secondary Walk lighting should be the campus-standard acorn light fixtures on 14-foot tall fluted ornamental poles, located according to photometric requirements. Light levels should create a safe environment for all users while not over lighting a walk or space.

Secondary Walks should adhere to minimum dimensional guidelines described in the Secondary Walk cross-section.



Secondary Walk Cross Section

Exemplary Secondary Walk - Fisher College of Business, OSU

Exemplary Secondary Walk - Duke University

7. Landscape
Open Spaces

General Guidelines

The OSU campus landscape has a hierarchy of open spaces whose character reflects their location, size and use. The two most prominent and emblematic are The Oval and Mirror Lake Hollow. Their particular sense of permanence, high visibility and use are attributable not only to their size and central location, but also to the academic buildings framing them and their natural attributes. Newer campus open spaces such as Spirit of Women Park, are also recognized as having similar qualities, such as generosity of size, high quality materials, and design reflecting their unique use and campus context. While care should be taken to maintain and preserve these landscapes, all campus open spaces should support their respective functions; reinforce campus identity and connectivity; and enhance the living and learning environment.

- All open spaces on campus should be designed as an identifiable part of the larger campus fabric; one of canopy trees, lawns, and pedestrian walks. Within the context of the overall campus fabric, each space should also have a unique and distinct character derived from its specific location and use.
- Buildings should shape open spaces. Open space should enhance the landscape and building program and provide amenities for the campus community.
- Open space design should facilitate accessible, campus-wide circulation and connections to surrounding building entries through universal design principles.
- Open spaces should provide clear sight lines into and out of the space for safety and comfort. Views should be curated to accentuate key campus and architectural features as well as to minimize views that compromise the campus experience.
- Open space program elements should be located and sized in concert with building and campus amenities to promote social interaction and vibrancy within the campus. Campus open spaces should collectively have a mix of uses to create a campus-wide diversity of uses.
- Solar orientation and sun/shade patterns should be considered carefully in locating programmed areas. Micro-climates should be managed through site design to mitigate extreme conditions.
- Building service should not be located in or directly adjacent to a defined open space.
- Environmentally sustainable features and performative landscapes should be designed with proposed buildings to create integrated systems that reduce the demand of potable water and energy use on campus. Refer to the University's Sustainability Plan and Green Build policy.
- Lighting should be campus-standard acorn light fixtures on 14-foot tall fluted ornamental poles unless otherwise noted, located according to photometric requirements.
- Ample, comfortable seating should be achieved through a combination of appropriate site elements such as seat walls and campus standard furnishings.
- Planting should be appropriate to regional and microclimatic conditions, frame and shape the open space, provide buffers, create shade, and promote seasonal interests that respond to the academic calendar. Native and adapted species with local provenance should be selected. Adapted plants may be used where appropriate to the open space program to provide additional diversity, and serve as a didactic landscape feature.

7. Landscape

Open Space Types

The OSU campus landscape is comprised of the open space corridors of streets and walks as well as definable quadrangles, courtyards, plazas, building entries and forecourts, gardens, recreational playfields and exterior athletic facilities. While all campus open spaces are important, two campus open spaces in particular, The Oval and Mirror Lake Hollow, are recognized as landscapes of distinction, and should be preserved and enhanced as such. They should also be emulated for their exemplary expression of campus character and coherence of scale and function; their relationship to adjacent buildings and landscapes, and their use of high quality materials.

Landscapes Of Distinction – The Oval

The Oval, the university's central open space, is an expansive and gracious lawn with mature canopy trees, framed by academic buildings. A central brick promenade and multiple crisscrossing walks carry some of the highest levels of campus pedestrian movement. The predominant axis of the Thompson Library and 15th Avenue gateway, makes the Oval the physical and symbolic heart of the campus.

The essence of the Oval landscape should be preserved and enhanced through priority maintenance regimes to protect the vitality of trees and lawn. Open views along the central axis between the Thompson Library and the 15th Avenue gateway should also be preserved.

The Oval

The Mirror Lake Hollow

Landscapes Of Distinction – The Mirror Lake Hollow

The Mirror Lake Hollow is the central park of the campus. In contrast to the broader plane of the Oval, it is distinguished by steeper topographic relief, a reflecting pond and Browning Amphitheater. A diverse collection of trees in mass plantings and individual mature canopy trees in an open lawn shaped to form a natural bowl, make the Mirror Lake Hollow ideal for informal gathering, outdoor classes and campus events.

The Mirror Lake Hollow should be preserved and enhanced by ensuring the vitality of trees through priority maintenance regimes, and protecting the water quality of the pond through sustainable features that manage runoff. Iconic views across the pond and from the Browning Amphitheater should be preserved.

Landscapes Of Distinction – Campus-Wide

Several other campus open spaces, while perhaps not as iconic as The Oval or Mirror Lake Hollow, are also recognized as landscapes of distinction. These generally fall within the landscape types addressed below. They are: Spirit of Women Park, North Academic Green, Jones Legacy Park and 15th Avenue Gateway Plaza. They should also be emulated for their exemplary expression of campus character and coherent elements of scale, function, relationship to adjacent buildings and landscapes, and their use of high quality materials.

Approved Materials for Landscapes of Distinction:

Pavement:

- Red Brick Pavers at building entries and Primary Walks only
- Natural Stone Pavers in limited quantities at building entries
- Asphalt Hexagonal Pavers at the Oval Loop Walk (raised granite curb on interior edge of the path)
- Cast-in-place Concrete with saw-cut joints for Secondary Walks

Lighting

- Black Acorn-type fixture on a 14-foot tall fluted ornamental pole

Furnishings

- Bench: Black Steel Ribbon-style bench
- Trash and Recycling Receptacles: Black steel ribbon-style receptacle
- Bike Racks: DuMor loop-style rack

Bollards

- Black square removable bollard, and only if necessary to prevent incursion of vehicles

(Note: For all approved materials and products, see the Landscape Material Appendix.)

Quadrangles

Quadrangles act as an open-air, gathering spaces for the academic and residential community. They also provide a coherent setting for stylistically diverse surrounding buildings. They should be laid out with a strong sense of the whole, while subtly forming subdivisions that allow a variety of use. A quadrangle is a generously-scaled public lawn with canopy trees surrounded on four sides by buildings and crossed by Primary and Secondary Walks connecting key destinations.

Quadrangles should be flexibly designed to support multiple uses at any given time and provide distinct areas of sun and shade for user comfort. Academic quadrangles should provide amenities that facilitate adjacent academic programs and intellectual exchange, while residential quadrangles should provide amenities for informal recreational and social gatherings.

The central portions of quadrangles should emphasize the campus landscape character of canopy trees in lawn that maintain clear views and complement the arrangement of walks. Ornamental flowering trees may be used peripherally.

<u>Approved Quadrangle Materials:</u>

Pavement
- Red Brick Pavers at building entries and Primary Walks only
- Cast-in-place Concrete with saw-cut joints
- Natural Stone Pavers in limited quantities at building entries

Lighting
- Black Acorn-type fixture on a 14-foot tall fluted ornamental pole

Furnishings
- Bench: Black Steel Ribbon-style bench
- Trash and Recycling Receptacles:
- Black steel ribbon-style receptacle
- BigBelly trash compactor and recycling receptacles adjacent to food service areas only
- Fixed and Movable Tables and Chairs adjacent to food service only
- Bike Racks: DuMor loop-style rack

Bollards
- Black square removable bollard, and only if necessary to prevent incursion of vehicles

(Note: For all approved materials and products, see the Landscape Material Appendix.)

Exemplary Quadrangle - Smith Green within Academic Core North, OSU

Exemplary Quadrangle - Old Campus, Yale University

Courtyards

A courtyard is an intimate open-air gathering space enclosed on a minimum of three sides by buildings and providing a platform for intentional and serendipitous social interaction. Courtyards should be located off of Primary Walks and connected with Secondary Walks. Courtyards may also feature a combination of trees in lawn, botanically rich gardens and small areas of specialty pavement.

Academic Courtyards should provide amenities for students that respond directly to surrounding building uses, while residential courtyards should provide passive open space amenities and an outdoor space for residents to gather and hold small events. Planting should reinforce the campus character of trees in lawn, but also provide a more intimate scale and texturally and seasonally rich, but maintainable, palette of flowering trees, shrubs, perennials and ground covers.

<u>Approved Courtyard Materials:</u>

Pavement
- Natural Stone Pavers or Red Brick Pavers as predominant paving material
- Stabilized Stone fines 'or' Decomposed Granite, located in areas of low traffic and not adjacent to building entrances
- Cast-in-place concrete with saw-cut joints in limited quantities

Lighting
- Black Acorn-type fixture on a 14-foot tall fluted ornamental pole
- Bega Cut-off fixture (model #8959MH) mounted on 16-foot straight round pole

Furnishings
- Bench: Black Steel Ribbon-style bench
- Trash and Recycling Receptacles:
- Black steel ribbon-style receptacle
- BigBelly trash compactor and recycling receptacles adjacent to food service areas only
- Fixed and Movable Tables and Chairs adjacent to food service only
- Bike Racks: DuMor loop-style rack

Bollards
- Black square removable bollard, and only if necessary to prevent incursion of vehicles

(Note: For all approved materials and products, see the Landscape Material Appendix.)

Exemplary Residential Courtyard - Park-Stradley Hall, OSU

Exemplary Residential Courtyard - Swarthmore College

Courtyards

Plazas

A plaza is a paved space, framed by buildings or planting. A suitably-designed plaza is durable and capable of serving a variety of uses by virtue of its surface and design. There may or may not be trees within a plaza; however, an adjacent shaded refuge is usually important for a plaza's success.

Plazas should be located on, or adjacent to, primary pedestrian walks or circulation areas; they should provide ample, comfortable seating and also be capable of accommodating an event with tables and chairs without inhibiting pedestrian movement. They should be partially shaded and generally have a source of food or refreshment close by. Plazas may have distinguishing focal features such as a fountain, public art or a monument.

The paving should be a durable contrasting 'carpet' such as stone to promote the individual character of the plaza. Paving material may be site-specific or of the campus district, but should be complementary to the material palette of adjacent buildings.

Plazas should use campus standard site furnishings. Some site furnishings, where appropriate and financially feasible, may be designed as part of the plaza.

Planting should be selected to complement the plaza design, program and micro-climate. Planting should be located carefully so as not to inhibit circulation. All Planting should be contained in defined beds, raised planters, or defined tree pits.

<u>Approved Plaza Materials:</u>

Pavement
- Natural Stone Pavers as predominate paving material
- Stabilized Stone fines or Decomposed Granite, located in areas of low traffic and not adjacent to building entrances
- Cast-in-place concrete with saw-cut joints in limited quantities

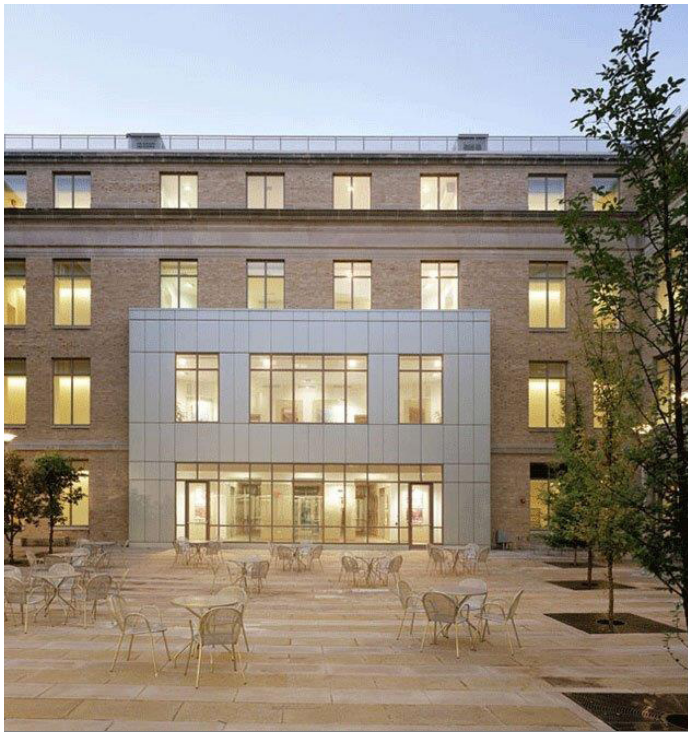
Lighting
- Black Acorn-type fixture on a 14-foot tall fluted ornamental pole

Furnishings
- Bench: Black Steel Ribbon-style bench
- Trash and Recycling Receptacles:
  - Black steel ribbon-style receptacle
  - BigBelly trash compactor and recycling receptacles adjacent to food service areas only
- Fixed and Movable Tables and Chairs adjacent to food service only
- Bike Racks: DuMor loop-style rack

Bollards
- Stainless Steel, fixed and removable

(Note: For all approved materials and products, see the Landscape Material Appendix.)

Exemplary Plaza - Ohio Union, OSU


Exemplary Plaza - Haggerty Hall, OSU

Building Entries And Forecourts

Building entries and forecourts are areas that signify the point of entry for a building with pavement, planting, and furnishings that facilitate short-term impromptu gatherings.

Primary building entrances and forecourts should be located off of campus paths with significant pedestrian traffic flow and not in conflict with intended pedestrian traffic flows. They should be designed to complement the character of the building and its uses. These areas should provide ample and comfortable seating for short-term gatherings. Site materials and finishes should be of a higher quality but still within the campus standard material palette when possible.

Secondary building entrances, such as service access, should not be located on the major pedestrian walks.

Planting should help in indicating the building entrance and be of complementary scale, massing and texture. Cluttered "foundation plantings" should be avoided, as should planting close to windows or doors.

<u>Approved Building Entry and Forecourt Materials:</u>

Pavement
- Red Brick Pavers
- Natural Stone Pavers
- Cast-in-place concrete with saw-cut joints in limited quantities
- Hexagonal asphalt pavers in limited quantities

Lighting
- Black Acorn-type fixture on a 14-foot tall fluted ornamental pole (quantities and light-level to be coordinated with building lighting)

Furnishings
- Bench: Black Steel Ribbon-style bench
- Trash and Recycling Receptacles: Black steel ribbon-style receptacle
- Fixed and Movable Tables and Chairs adjacent to food service only
- Bike Racks: DuMor loop-style rack

Bollards
- Avoid use of bollards at pedestrian entries and forecourts
- Use Stainless steel bollards if entry is adjacent to a vehicular drop-off

(Note: For all approved materials and products, see the Landscape Material Appendix.)

Exemplary Building Entry / Forecourt - University Hall, OSU

Exemplary Building Entry / Forecourt - Steinberg-Dietrich Hall, University of Pennsylvania

Building Entries / Forecourts

Gardens

The primary characteristic of a garden is its abundance of planting, flanking paths and occasional seating. It tends to be a reflective place for individuals or small groups. It can be large or small with informal paths or linear paths. A garden has significant value as a source of restoration to the campus community.

Gardens should be equitably distributed throughout the campus, and located adjacent to, or off of, primary pedestrian circulation. They should provide varied sources of respite and reflection. Gardens should respond to their particular location on campus. In contrast to the campus character of trees in lawn, garden planting should be of a refined scale and palette, rich in seasonal color, texture, ornamental and horticultural value. The design and palette should reflect a specific garden character such as a healing garden, native plant garden, or woodland shade garden. Planting should provide year-round interest with an ornamental emphasis coinciding with the academic calendar. Gardens should serve both a restorative and didactic purpose.

Paving and lighting should complement the garden type and use.

<u>Approved Garden Materials:</u>

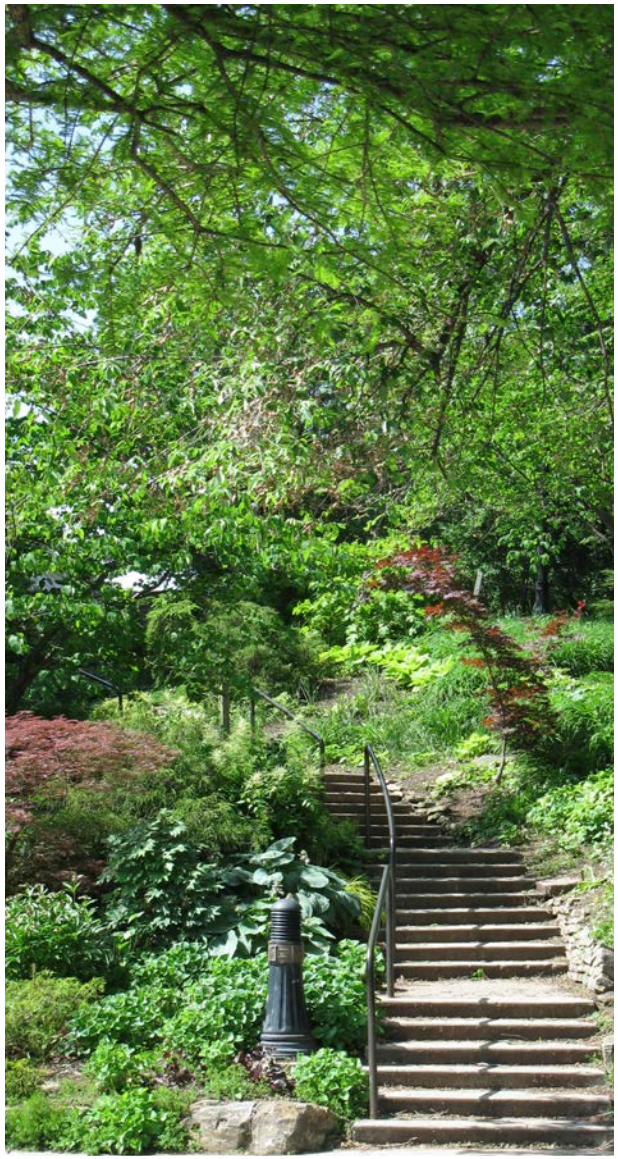
Pavement
- Red Brick Pavers
- Natural Stone Pavers
- Stabilized Stone fines ‘or’ Decomposed Granite, located in areas of low traffic and not adjacent to building entrances

Lighting
- Black Acorn-type fixture on a 14-foot tall fluted ornamental pole

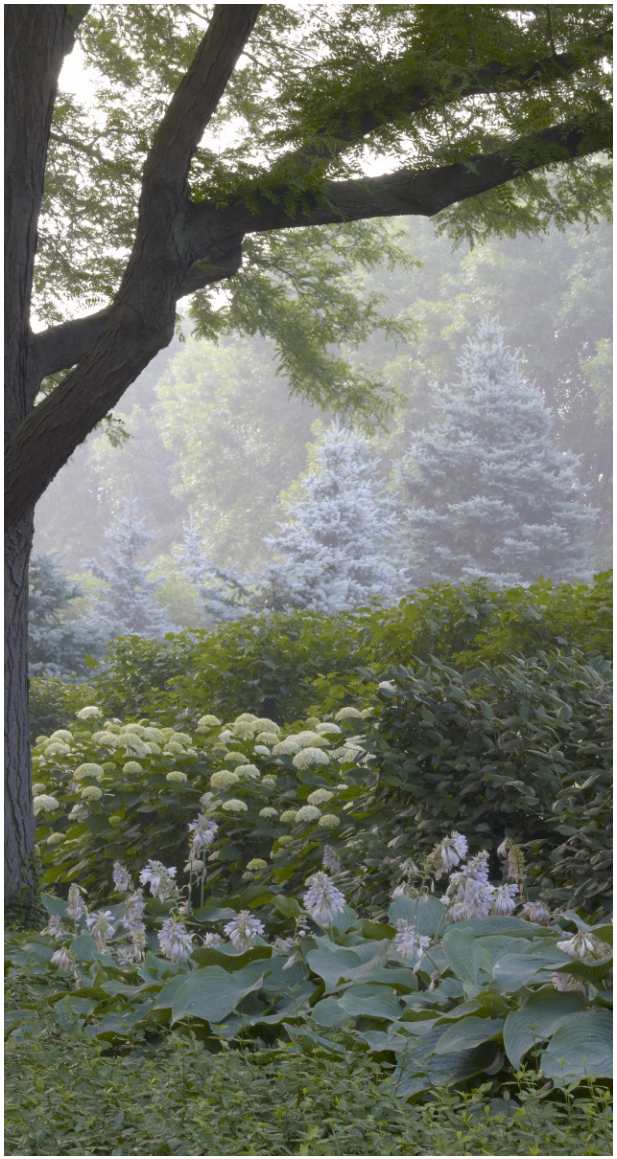
Furnishings
- Bench: Black Steel Ribbon-style bench
- Trash and Recycling Receptacles: Black steel ribbon-style receptacle
- Fixed and Movable Tables and Chairs adjacent to food service only
- Bike Racks: DuMor loop-style rack

Bollards
- Black square removable bollard only if necessary to prevent incursion of vehicles

(Note: For all approved materials and products, see the Landscape Material Appendix.)



Exemplary Garden - Mirror Lake Hollow, OSU Gardens



Exemplary Garden - Midway Plaisance, University of Chicago

Maintenance and Service

Maintenance and service are necessary functional activities that support the university mission. The nature of maintenance and service involves delivery and service vehicles, waste and materials handling, building and site maintenance.

Maintenance and service areas should be visually integrated or minimized to reduce the impact on the quality of the adjacent landscape and promote efficiency and minimize conflicts between pedestrian and maintenance and service activities. Where possible they should be located in areas where they can be shared by multiple buildings. They should be designed to ensure safety and security in the circulation, loading and operations of materials handling and maintenance.

Approved Service Yard Materials:

Pavement
- Cast-in-place concrete

Bollards
- Black square removable bollard, and only if necessary to prevent incursion of vehicles

(Note: For all approved materials and products, see the Landscape Material Appendix.)

Exemplary Service Area – Penn State University, State College, PA

Exemplary Service Area – Penn State University, State College, PA

Maintenance and Service

Surface Parking Lots

Surface parking lots should utilize the most efficient layout and orientation. Each parking lot, access aisle and drive should be as small as practically possible. They should be constructed with durable materials and provide tree canopy for shade. Continuous planting islands should be provided to break down the large scale of surface parking lots. Stormwater runoff should be captured and infiltrated on site where possible. Surface lot lighting should be campus-standard black gullwing light fixtures on 20-foot tall poles.

<u>Approved Surface Lot Materials:</u>

Pavement
- Asphalt driving surface
- Cast-in-place concrete walks

Lighting
- Black Gardco gullwing fixture

Furnishings
- Bench: Black Steel Ribbon-style bench
- Trash and Recycling Receptacles: Black steel ribbon-style receptacle
- Bike Racks: DuMor loop-style rack

Bollards
- Black square removable bollard, and only if necessary to prevent incursion of vehicles

(Note: For all approved materials and products, see the Landscape Material Appendix.)

Exemplary Surface Lot - Cornell University

Exemplary Surface Lot - Cornell University

Surface Lots

7. Landscape Material Appendix

Site Materials

The following materials standards have been approved by the university and meet the following goals:

- Long-term Maintenance
- Ease of Repair
- Financial achievability
- Durability
- Unity
- Design Excellence

Site Materials -
Cast-In-Place Concrete Paving

The campus standard paving is cast-in-place concrete with a broom finish. Saw-cut control joints should be beveled in order to prevent paving damages by snow plowing. Where a higher quality of finishes is desired, a buff wash and basalt finish could be used in discrete areas; on Secondary Walks and within open spaces such as parks, gardens and courtyards. The appearance of finishes should be as consistent as possible across campus.

Broom Finish at Psychology Building

Buff-wash and Basalt Finish at Jones Legacy Park

Red Brick Pavers

Red brick pavers should be used on Primary Walks when the project can afford them. The pavers should be set on a concrete sub-slab with a bituminous setting bed. The color blend of red brick pavers should be as consistent as possible across campus and reviewed by the University Landscape Architect. The campus standard is City Line Pavers: Regimental Full Range Color from the Belden Brick Company.

The Oval Long Walk, OSU

Red Brick Pavers, OSU

Natural Stone Unit Pavers

Granite and bluestone pavers could be used to complement buildings and landscapes. These stone pavers should be used on plazas and building entries when possible. The pavers should be set on a concrete sub-slab with a bituminous setting bed. The use of hexagonal asphalt pavers should be limited to complete the Oval Loop Walk. Precast concrete pavers should not be used since they tend to create inconsistency across campus

Granite

Bluestone

Site Materials - Curbs

Raised cast-in-place straight concrete is the campus standard material for roadway curbs. Granite curbs with split face and saw-cut top should be limited to the following streets:

- Neil Avenue between Woodruff Avenue and 12th Avenue
- College Road between Woodruff Avenue and 12th Avenue
- Woodruff Avenue between Tuttle Park Place and High Street
- Tuttle Park Place between Woodruff and 17th Avenue
- 19th Avenue between Neil Avenue and College Road
- 18th Avenue between Neil Avenue and High Street
- 17th Avenue between Cannon Drive and High Street
- 12th Avenue between Neil Avenue and High Street
- Hagerty Drive between South Oval Loop and College Road

The interior side of the Oval Loop walk should be Classic Grey Granite style, grey to bluish grey, fine grain granite from North Carolina Granite Company.

Dark Gray Granite Curb at Academic Core

Campus Standard Straight Cast-in-Place Concrete Curb

Granite Curb at The Oval Loop Walk

Site Materials -
Site Stairs

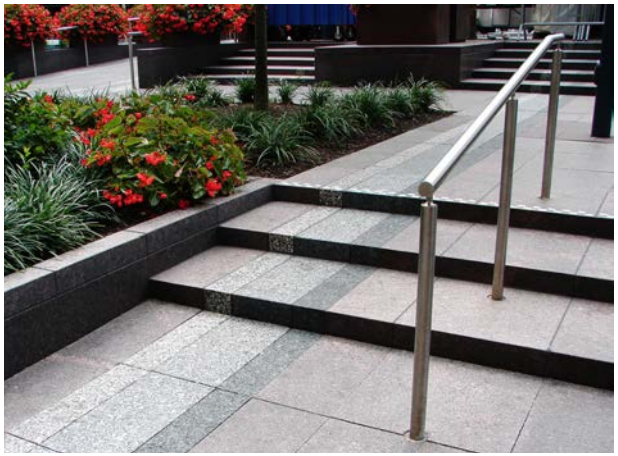
The campus standard for site stairs is cast-in-place concrete. Stone Stairs could be used in discrete areas; on Secondary Walks and within open spaces such as parks, gardens and courtyards.

Cast-in-Place Concrete Stairs

Stone Stairs

Handrails

The campus standard for a handrail is stainless steel round tubes. No lighting should be integrated to the handrails.



Detectable Warning Fields

The campus standard for a detectable warning field is cast-iron plates.

Site Materials -
Crosswalk Striping

The campus standard for crosswalk striping is white thermoplastic tape (per City of Columbus specifications, item 644).

At intersections, yield signs should be located to accommodate turning movements.

University will install “In-street pedestrian sign” on flexible, breakaway post in accordance with the latest edition of the OMUTCD and AASHTO’s “Specification for Structural Supports for Highway Signs, Luminaires, and Traffic Signals.”

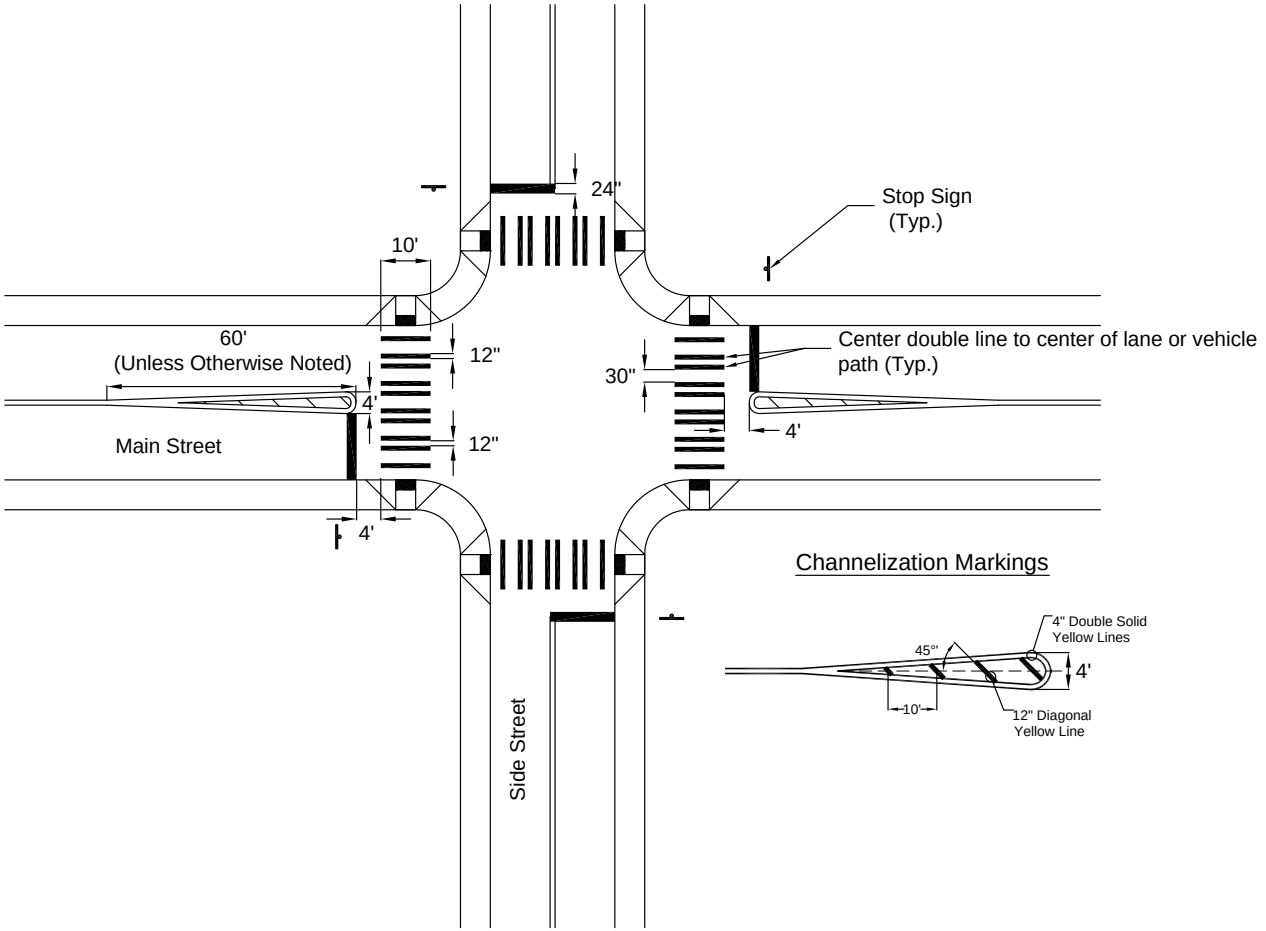
Curb ramps are shown in preferred locations and are subject to changes per owners representative or site constraints. All proposed and existing curb ramps are to be installed or updated per the City of Columbus standard details.

Spacings of crosswalk striping are intended to leave gaps for vehicle tire paths. Judgment should be used in the field to locate the 30” spacings appropriately. Center the “double line” to the center of lane or vehicle path. Continue by building off these to have equal spacing of ±30”. Contractor shall gain University approval for field layout prior to painting.

At crosswalks angled other than 90°to the flow of traffic, striping shall be placed parallel with the flow of traffic.

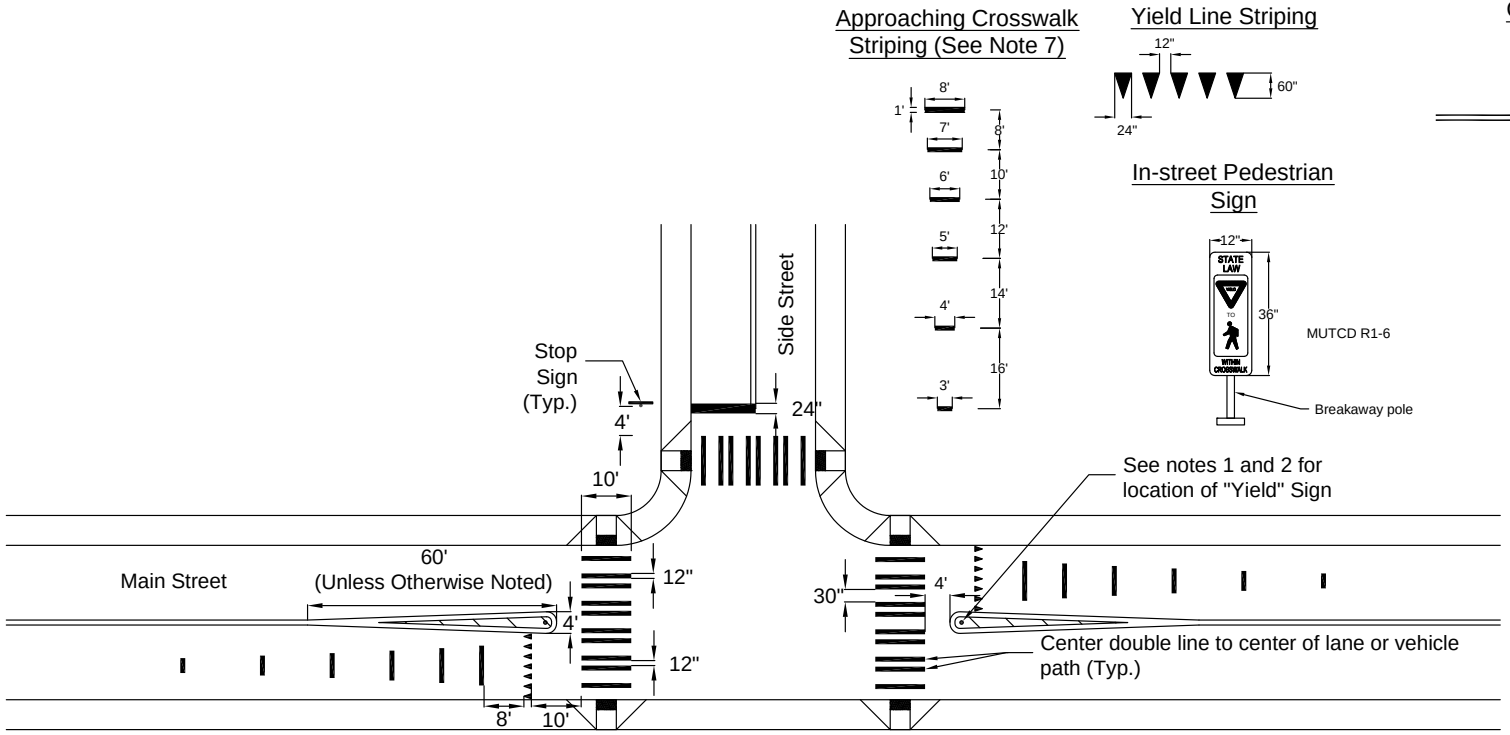
Approaching stripes are optional unless called out by the design plans.

Assume symmetry. Dimensions shown are typical.

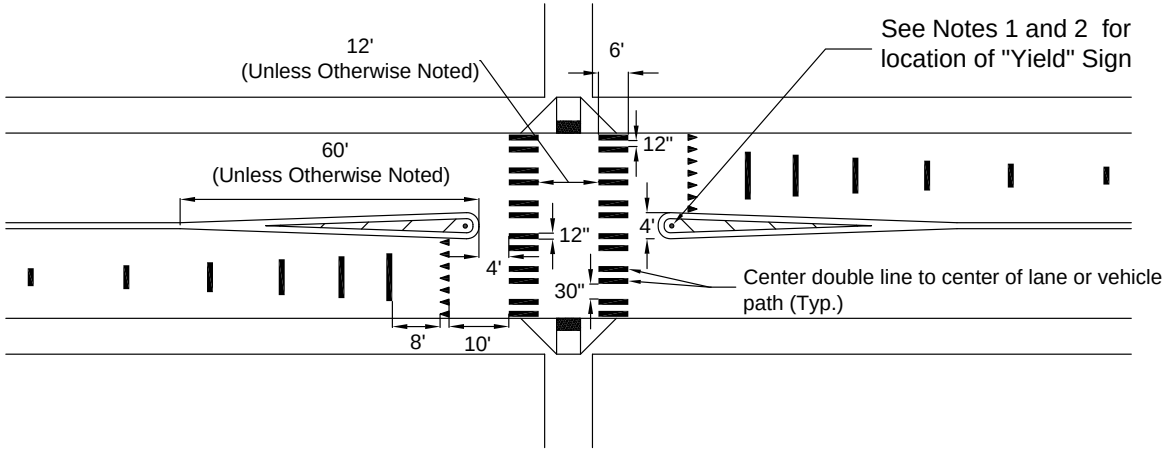


Crosswalks: All-way stop controlled intersection striping

Site Materials -
Crosswalk Striping



Crosswalks: One-way stop controlled intersection striping



Crosswalks: Mid-block crosswalk striping

Site Furnishings - Lighting

Street Lighting
Campus standard for street lighting is the black Ohio State standard acorn-type fixture on an fluted ornamental pole. The pole height varies depending on the street types. When acorn-type fixtures cannot achieve the appropriate light levels due to the spatial constraints, such as a high traffic, wide cross section of roadways, the black Gardco gullwing lighting fixtures should be used.

Crosswalk Lighting
Campus standard for crosswalk lighting is the gray Gardco gullwing fixture. The pole height should match the street lighting.

Pedestrian Lighting
Campus standard for pedestrian walk lighting is the black Ohio State standard acorn-type fixture on a 14-foot tall fluted ornamental pole. When acorn-type fixtures cannot achieve the appropriate light levels due to the spatial constraints, the black Gardco gullwing lighting fixtures should be used.

Open Space Lighting
Campus standard for open spaces is the black Ohio State standard acorn-type fixture on a 14-foot tall fluted ornamental pole. When acorn-type fixtures cannot achieve the appropriate light levels due to the spatial constraints, the black Gardco gullwing lighting fixtures should be used. The black Bega conical lighting could be used in discrete areas such as courtyards.

Surface Lots/Service And Maintenance Lighting
Campus standard for Surface lots/service and maintenance lighting is the black Gardco gullwing fixture on a 20-foot tall pole.

Acorn-type fixture on fluted ornamental pole

Gardco gullwing light fixture

Bega cut-off fixture (model #8959MH)

Benches

Campus standard is a black steel ribbon-style bench. Furnishing should not be anchored unless directed by the university.

Black Ribbon Style Metal Bench

Site Furnishings -
Fixed Tables And Chairs

Campus standard is a black steel ribbon-style picnic table. The furnishing should not be anchored unless directed by the university. The campus standard for food service areas is the black Landscape Forms Carousel table with metal umbrella. The furnishing must be anchored.

Campus Standard

Food Service Area

Movable Tables And Chairs

Campus standard for movable tables and chairs is black Landscape Forms Parc Centre.

Bike Racks

Campus standard for bike racks is the DuMor loop-style rack. Bike racks should be located close to the building entries and streets. They should not interrupt the circulation and disturb the landscape or require cyclists to ride on the sidewalk to reach the bike rack.

Site Furnishings -
Trash And Recycling Receptacles

Campus standard for trash and recycling receptacles is the black steel ribbon-style receptacle. Trash and recycling receptacles should be clearly distinguishable. The receptacle should not be anchored unless directed by the university. In food service areas, BigBelly trash compactor and recycling receptacles should be used.

Campus Standard

Food Service and High Pedestrian Traffic Areas

Site Furnishings -
Bollards

Campus standard bollard for traffic control is a black 4" square fixed/removable steel post with white reflective tapes. Stainless steel bollards should be used in plazas. The use of square granite bollards should be limited on the Oval Loop Walk. When necessary, black cast iron post and chain should be used at the perimeter of plant beds to direct pedestrians away from unsafe conditions or to protect the landscape.

Stainless Steel Bollards

Black Collapsible Bollards

Black Powder Coated Steel Bollards

Fixed/Removable Black 4" Square Bollards

Black cast iron post and chain

Planting -
Trees In Lawn

- Preserve and nurture existing, healthy mature trees through an arboricultural maintenance and replacement regime.
- Protect from physical disturbance and site development when possible.
- Select from a wide range of hardy, native and indigenous trees to provide horticultural diversity and to promote the campus as an educational landscape.
- Locate trees carefully to frame and reinforce open spaces, complement walkways and enhance desirable views and axes.

Trees In Paving

- Promote tree health by providing continuous planting pits when possible.
- Avoid soil compaction under pavement systems.
- Select native and adapted species that have a proven reliability in urban and paved conditions.
- Avoid tree species with shallow root systems to prevent maintenance issues.
- Change species when transitioning from trees in beds to trees in pavement to avoid differential growth.

Street Trees

- Promote tree health by providing continuous planting pits when possible.
- Avoid soil compaction under pavement systems.
- Select native and adapted species that have proven reliable in urban street conditions.
- Select tree species and size proportional to the street width.
- Avoid tree species with low branches, significant fruit or seed, and shallow root systems to prevent maintenance issues.
- Space street trees as consistently as possible.
- Plant street trees in continuous trenches to maximize soil volume and root run area.
- Select native and adapted species and sizes that are proportional to the open space.
- Prioritize planting around building entries and forecourts.

Trees in Lawn - The Oval, OSU

Trees in Paving - The Metropolitan Museum of Art, New York

Street Trees - Hillhouse Avenue, Yale University

Steering Committee:
Jay Kasey – Senior Vice President, Administration & Planning
Bernard Costantino – University Architect, Senior Director Design & Construction
Stephen Volkmann – University Landscape Architect
Keith Myers – Associate Vice President, Planning & Real Estate
Lynn Readey – Associate Vice President, Facilities Operations & Development
Michael Cadwell – Walter H. Kidd Professor & Director, Knowlton School of Architecture
Amy Burgess – Director of Planning, Special Assistant to the Vice President
Kimberly Moss – Senior Campus Planner, Planning & Real Estate
Jennifer Cowley – Vice Provost, Capital Planning & Regional Campuses, Office of Academic Affairs; Professor of City & Regional Planning

RAMSA
ROBERT A.M. STERN ARCHITECTS

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