

ACKNOWLEDGEMENTS



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EDGE EMH&T Side Street Planning Policyworks The following list of stakeholders provided critical input into the preparation of the Downtown Streetscape Standards through focus group discussions, one-on-one interviews, and attendance at public meetings.

City of Columbus Department of Public Service

City of Columbus Department of Development

City of Columbus Department of Utilities

City of Columbus Recreation and Parks Department

City of Columbus Mayor's Office

City of Columbus Downtown Commission

City of Columbus Transportation & Pedestrian Commission

Columbus Downtown Development Corporation

Capital Crossroads and Discovery District Special Improvement Districts

Capital Law School

Capital Square Review/Advisory Board

Columbus College of Art and Design

Columbus Metropolitan Library

Columbus Museum of Art

Columbus State Community College

Connect Columbus Project Team

Convention Facilities Authority

COTA

Downtown Residents' Association

Experience Columbus

Franklin County

Franklin University

Grant Hospital

Greater Columbus Arts Council

Jefferson Center

Lifestyle Communities

Motorist Mutual

Nationwide Realty Investors

North Market

Schiff Capital

State Auto

Downtown Developers & Property Owners Focus Group

Architects, Landscape Architects, & Urban Designers Focus Group

Engineers Focus Group

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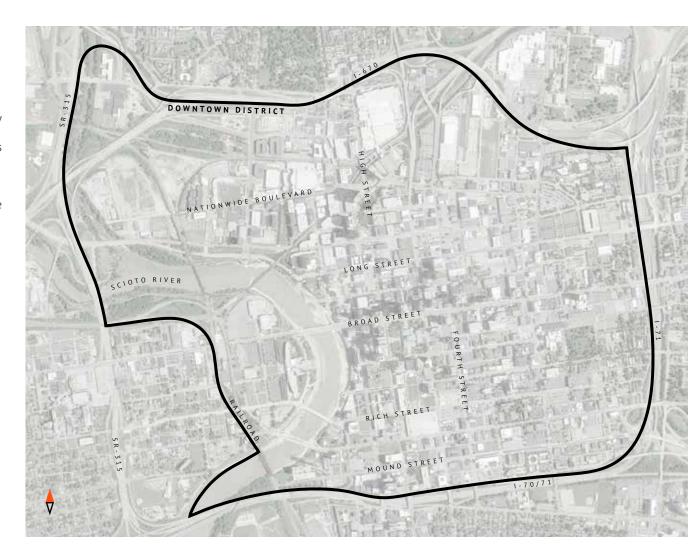
11 PURPOSE OF THE PLAN

The streetscapes of Downtown Columbus make up the network of public spaces by which people move, socialize, and do business. This public realm provides critical opportunities to enhance the quality of life for all of those who live, work, and visit Downtown. With the current upward trajectory of Downtown redevelopment, the importance of creating safe, functional, and attractive streetscapes has never been more important.

The Downtown Streetscape Standards provide the Department of Public Service with a comprehensive set of standards that will address improvements within the right-of-way including sidewalks, curbs, crosswalks, street lighting, traffic signals, street furniture, landscaping, green infrastructure, public art, medians, outdoor dining, and parking lot screening.

1 7 STREETSCAPE BOUNDARIES

The limits of the study area follow the same boundaries of the Downtown District. The area is generally bounded by I-670 to the north, I-71 to the east, I-70/71 to the south and a combination of railroad tracks and SR-315 to the west.



1.3

PROJECT INFLUENCES

The Downtown area is a diverse environment with a variety of street types and land uses that interact with each other in different ways. The development of streetscape standards consider multiple influences including various street typologies, real and perceived districts, and the impact of built projects in the Downtown.

previous plans

Previous planning efforts by the City of Columbus provide the foundation for the streetscape standards and guidelines. The following three specific plans have been most influential in the creation of existing standards and in the identification of various street types.

Columbus Downtown Streetscape Plan - 2000

This plan has provided guidance to the Department of Public Service for fifteen years. Recommendations were provided for various streetscape elements based on street type and district. This plan has influenced improvements on various Downtown streets.

Columbus Downtown Circulation Study - 2006

This study established typologies for all of the Downtown public streets. Consideration was given to traffic volumes, one-way vs. two-way circulation, on-street parking, and general street hierarchy.

Downtown Columbus Strategic Plan - 2010

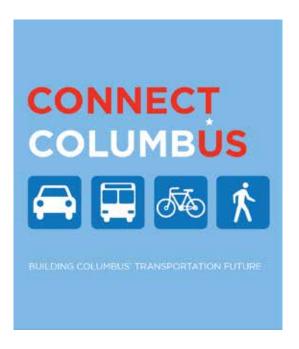
This plan updated some aspects of the Downtown Circulation Study including refinement of the street hierarchy and the proposed street typologies. Multimodal opportunities were strongly considered as part of these recommendations.



connect columbus

Connect Columbus is a multi-modal thoroughfare plan that defines the future of transportation in Columbus by providing the rules for alternative means of travel. This document establishes direction for the functional use of streets throughout the City with specific recommendations for Downtown. When considering the design of a Downtown streetscape, Connect Columbus will provide important information regarding the design of the street which will likely influence the layout of streetscape features. This document can be referenced at:

https://columbus.gov/connectcolumbus/.



districts

Downtown Columbus is made up of a variety of districts. Some of these districts are well established while others may be less obvious or in the early stages of their recognition as a definable place. As the standards and guidelines were prepared for this plan, the importance of reinforcing some or all of these districts was considered. In addition, the successful use of streetscape elements within many of these districts was used as inspiration and has influenced many of the standards and quidelines found within this plan.

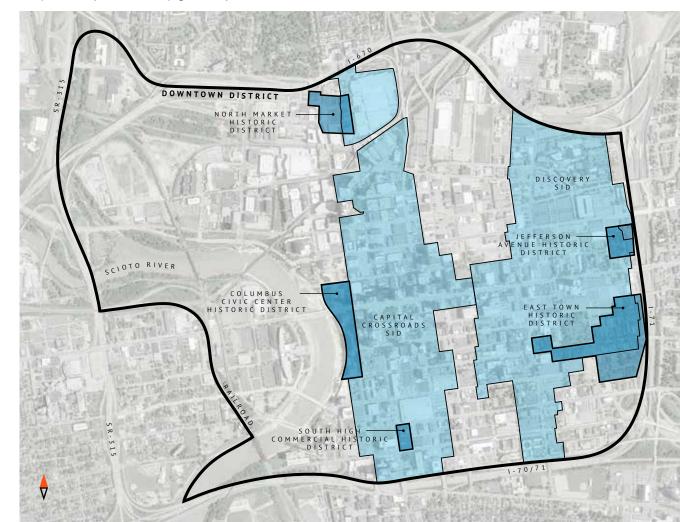
Some districts have defined boundaries, such as the taxing districts for two separate special improvement districts. The Capital Crossroads and Discovery Special Improvement Districts are taxing districts where property owners within the boundaries pay for additional services that improve the livability of Downtown. Several historic districts also exist within the Downtown boundaries. These include the North Market Historic District, the South High Commercial Historic District, the Jefferson Avenue Historic District, the East Town Historic District, and the Columbus Civic Center Historic District.

Some districts are defined by a civic land use. The State of Ohio, Franklin County, and The City of Columbus each have a recognizable campus within Downtown. The State House is a prominent architectural landmark and establishes a district at the intersection of Broad Street and High Street that is commonly referred to as Capitol Square. The Franklin County Government Complex anchors the south end of Downtown along High Street. City Hall and the evolving Municipal Campus also have a prominent location at Broad Street and Front Street.

Many other districts have developed over time, primarily as a result of efforts made by a particular private developer. The largest and most identifiable of these areas is the Arena District. Others include Neighborhood Launch, RiverSouth, and the 4th & Main neighborhood.

Other districts can be identified by a collection of complementary architecture (e.g. The Gay Street

Corridor and the Warehouse District) and others by a significant institution or collection of institutions (e.g. The Convention Center area and the Creative Campus). Finally, some districts may be the result of a cluster of development activity or an identified planning area (e.g. West Nationwide, The Scioto Peninsula, Southeast Gateway).





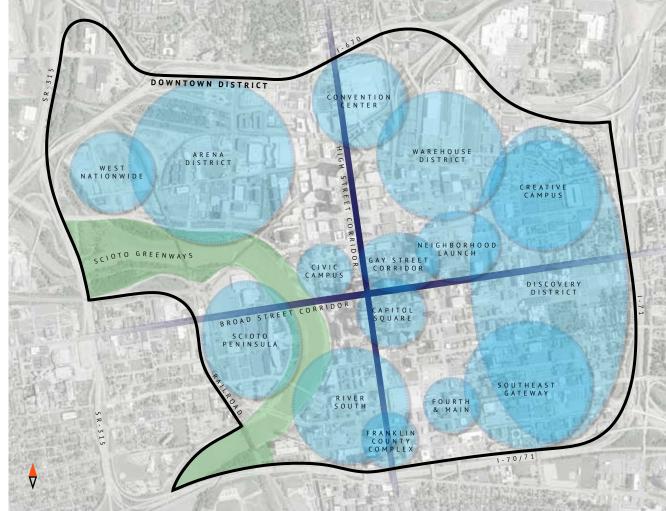




large-scale projects

Built projects also have the ability to influence the new standards and guidelines. For example, public realm improvements in RiverSouth, the Arena District, and Neighborhood Launch have established streetscape treatments that may be appropriate to use in other areas of the Downtown. Crosswalks, street lighting and granite curbs used

in RiverSouth were incorporated into the "Urban Avenues" projects that were constructed as part of the I-70/I-71 improvements. The evolution of tree planting details in the Arena District has led Nationwide Realty Investors to a strong preference for using curbed planters in lieu of tree grates. Future projects may ultimately yield new standards that could be considered for other areas.



SUMMARY OF STAKEHOLDER INPUT

In order to best understand the issues and opportunities associated with a new set of streetscape standards and guidelines, many stakeholders were interviewed in the formulation of this plan. One-on-one interviews and focus groups were conducted with City Departments, City Commissions, public and private institutions, private developers, and design professionals. While many opportunities, challenges, and ideas were discussed throughout the various stakeholder meetings, several common themes emerged. These are as follows:

Standards vs. Guidelines

Careful thought should be given to items that should become standards (or requirements) as opposed to quidelines.

Communication & Consensus

The standards/guidelines should help the design and implementation process by minimizing conflicts between City Departments, developers, and consultants.

Economic, Social, & Environmental Sustainability

The public streetscapes play a vital role in the economic success of Downtown businesses, the social interactions of Downtown residents, workers, and visitors, and the ecology of the area. These principles should be considered in developing a balanced approach to streetscape standards and quidelines.

Functional Organization of Elements

The spatial relationship and the dimensions/ clearances of elements are key parts of a functional

streetscape. Safe walk zones, ADA clearances, outdoor dining, and other amenities must all be considered together. Pedestrian volumes along various street types should also be anticipated.

Enhance Walkability & Multiple Modes of Traffic

The Downtown streetscapes should prioritize the pedestrian and reinforce Downtown as a balanced multi-modal district.

Balancing Unity & Diversity

The aesthetics of the Downtown streetscapes should be consistent enough to unify the Downtown while allowing enough diversity to accentuate Downtown districts and special institutions. This will create a vibrant and dynamic series of experiences.

Street Trees & Utilities

Trees are essential to a livable and walkable streetscape. Careful thought should be given to enhancing the health of the urban tree canopy while minimizing conflicts with lighting standards and underground utilities.

Durability & Maintenance

All decisions regarding streetscape standards should consider the longevity of materials and long-term maintenance implications.

Implementation Costs & Maintenance Responsibility

City contributions to streetscape improvements via capital improvement projects or grants is critical to enhancing the public realm and a long-term commitment to maintenance (via partnerships or other mechanisms) is necessary to insure its success.





Based on the inventory of the existing conditions and the input of various stakeholders, the following vision and supportive goals and objectives were developed.

THE VISION

The standards and guidelines for Downtown streetscapes will create a safe and maintainable public realm that promotes economic success, encourages social interaction for all people, and enhances the urban ecology.

GOALS & OBJECTIVES

The following goals and objectives were developed in support of The Vision Statement. They are organized around the basic themes of:

- 1. Safety and accessibility
- 2. Sense of place
- Enhanced ecology
- Effective maintenance

GOAL 1: The streetscapes of Downtown Columbus will provide safe and accessible connections for all people, promoting the economic success of businesses while providing social opportunities for residents, workers, and visitors.

Objective 1.1: Establish typical relationships, dimensions, and clearances for streetscape elements based on street typologies and anticipated pedestrian volumes and activities.

Objective 1.2: Establish the typical relationship of the streetscape elements associated with other forms of transit including bike infrastructure, bus stops/canopies, and parking meters.

Objective 1.3: Identify appropriate paving materials and patterns that reinforce pedestrian movements. streetscape zones, and areas for safe refuge.

Objective 1.4: Establish typical utility placement, including lighting and signal standards, to ensure safety and minimize conflicts with other streetscape elements.



GOAL 2: The streetscapes of Downtown Columbus will provide an image of quality and sense of place through a consistent pattern and rhythm of elements while celebrating districts and institutions through selective customization.

Objective 2.1: Identify the range of style, color, and/ or pattern of elements that will be used to create a sense of unity throughout Downtown.

Objective 2.2: Identify the streetscape elements that are candidates to be upgraded or customized in specific districts or institutions.

Objective 2.3: Identify the institutions, districts, and/or the context by which deviation from the standards or customization will be encouraged.



GOAL 3: The streetscapes of Downtown Columbus will enhance the ecology of the area through the proper management of stormwater and the creation of a healthy urban forest.

Objective 3.1: Identify the range of green infrastructure solutions for stormwater management that can be incorporated into the Downtown street typologies.

Objective 3.2: Identify the appropriate standards for healthy street tree establishment to reduce heat island impacts and allow for passive heating and cooling of Downtown buildings.



GOAL 4: The streetscape of Downtown Columbus will consist of materials and details that can be effectively maintained.

Objective 4.1: Establish standard materials that are durable to minimize replacement costs.

Objective 4.2: Locate elements to allow reasonable access for maintenance and repair.







CONTEXT CHECKLIST 3.1

Those involved in the design of a new segment of Downtown streetscape or the renovation/ enhancement of an existing segment should begin the process by taking an inventory of the specific location. Many factors could influence the dimensions of various use zones, the functional placement of elements, and the specifications of individual elements. The following Context Checklist should be used as a guide to establish the design program for the streetscape.

CONTEXTUAL ISSUE	QUESTIONS TO CONSIDER	REFERENCE/RESOURCE
Street Typology	What is the existing and planned future use for the street corridor? Does on-street parking exist along the curb line or are there a moving lane of traffic?	The 2006 Downtown Columbus Circulation Study The 2010 Downtown Strategic Plan Update Connect Columbus https://columbus.gov/connectcolumbus/
Land Uses	What land use exists along the street? Are there potential restaurant uses that may desire outdoor dining? Are there major building entries where larger concentrations of people are anticipated?	Department of Development City of Columbus - 910 Permit for Sidewalk Dining
Bike Facilities	Are there existing or planned bike facilities for the corridor? Are there desired locations for bike racks based on destinations and existing facilities? Is there a demand for a bike share station within the corridor?	Department of Public Service Bike Share Program
Mass Transit	Is there an existing or planned COTA stop within the street corridor?	COTA www.cota.com/projects/bus-stop-design-guide.aspx Department of Public Service
Accessibility	Are designated accessible parallel parking spaces provided along the street? If so, is proper access provided to the sidewalk?	Department of Public Service
Curb to Building Dimension	What is the dimension from the face of the street curb to the building face? See Chapter 4 for desired dimensions for sidewalk zones.	Dimensions should be field surveyed.
Utility Locations	What are the locations of the utility lines within the corridor? Confirm location of all utilities including sanitary sewer, storm sewer, water, electricity, gas, fiber, etc.	General information can be obtained from the Department of Utilities and private utility owners, but all lines should be field surveyed. Ohio Utility Protection Service (call 8-1-1 or 1-800-362-2764)
Planning Studies	Are there current studies or efforts that may influence or change the function of the street (e.g. roadway diets, bike lanes, new transit stops)?	Department of Public Service Department of Development Department of Recreation & Parks
Special Districts and Standards	Is the street segment part of another district where specific custom standards are applicable? Examples include the Arena District and Capitol Square.	Department of Public Service Department of Development







Following the streetscape inventory, the design phase begins by understanding the basic composition of a functional streetscape. The composition of the streetscape should be consistent along all Downtown streets. The following framework establishes the zones, rhythm and relationships that should guide the design of all streets.

GENERAL SIDEWALK ZONES

The streetscape is a system of zones between the street curb and the building facades. Each zone serves a functional purpose and requires minimum dimensions.

The Curb Zone

This zone is a 30" wide zone from the face of the vehicular curb to the nearest vertical element. Typically, the first vertical element will be a 4" high planter curb. The 30" dimension allows for parked vehicles to open passenger side doors without hitting a vertical element. It also allows those passengers to exit their vehicles and step onto a walking surface. The only permitted elements within the Curb Zone are parking meters and regulatory signs. These meters are located at the ends of parallel parking stalls and therefore should not be in the swing path of vehicular doors.

The Amenity Zone

This zone contains most of the elements that define the character of the street. It contains the street lights and street trees which are critical to pedestrian safety and comfort in the urban environment. In addition, this zone includes curbed tree planters, tree grates (when necessary), and street furniture.



ZONE

ZONE

ZONE

ZONE

STREETSCAPE SECTIONS

typical cross sections

Minimum Dimensions

The minimum width for newly constructed streetscapes should be 12-0". This dimension allows for a 3-6" Amenity Zone which will accommodate a 2-1/2" caliper tree with a 2-6" root ball in a curbed planter. In order to maximize long-term tree health, curbed plant beds are always recommended over tree grates.

Recommended Dimensions

A dimension of 15'-0" allows for 4" caliper trees with 3'-6" root balls to be planted in a 4'-6" (minimum) amenity zone. A 4" caliper tree will be more vandal resistant and will have a higher canopy height at the time of installation which will allow for better visibility to storefronts. In addition, this overall dimension allows for a Building Zone which complements the walk zone to create more comfortable pedestrian flows. This is also the minimum sidewalk width to accommodate a bus shelter. Fortunately, a large majority of existing Downtown streetscapes are made up of curb-to-building face dimensions that meet or exceed 15'-0".

Dimensions Greater Than 15-feet

Dimensions that exceed 15'-0" allow for greater flexibility in the width of the Walk Zone, Amenity Zone, and the Building Zone. If Walk Zone dimensions are sufficient for anticipated pedestrian flows, then curbed planters should be made wider to maximize tree root zones. Building Zones may be increased to accommodate larger outdoor dining areas but should not exceed 8'-0" in width.

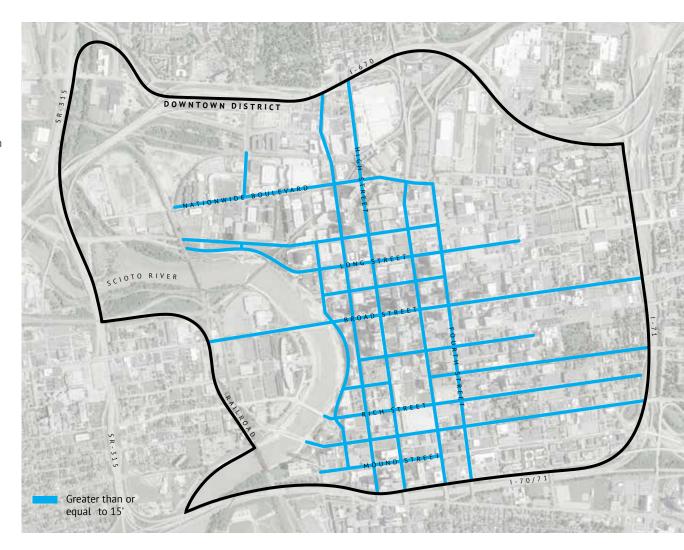






existing sidewalk dimensions

A dimension of 15'-0" or greater from the curb to the building face typically provides a comfortable dimension in which to plant street trees in curbed plant beds while accommodating pedestrian flows. This exhibit illustrates that most of the Downtown core could accommodate this ideal condition based on existing dimensions. The street segments highlighted in blue have an existing dimension from curb to building face of 15'-0" or greater.



alternative streetscape sections

Constrained Dimensions

When the curb to building face dimension is less than 12-0", trees will typically not be able to be planted in curbed planters. Tree grates may be used in these situations in order to continue the rhythm of street trees while maintaining a comfortable Walk Zone. When the dimension is less than 9-0", trees should not be planted in the Amenity Zone.

As an alternative, curb extensions (or bump outs) may be considered in the parking lane in order to create opportunities for trees. In all cases where the dimensions are constrained, inquire with the Department of Public Service regarding any opportunities to relocate the curb (i.e. narrow the parking lanes or vehicular travel lanes) to create a larger streetscape zone.





Vaults

Some segments of streetscape in the Downtown may have subsurface rooms or vaults that significantly limit the improvements that can be made to the streetscape. In these cases, it is important to maintain the quality of the streetscape environment through alternative solutions. Decorative planters should be utilized in lieu of traditional street tree plantings and other elements that may require special foundation details to avoid conflicts with below-grade structures.

Residential

In the eastern portion of Downtown, large tree lawns can be found along several streets. These streetscapes are often associated with corridors that are less densely developed and/or predominantly residential. These tree lawns provide healthy growing environments for trees and are important to the character of these streets.





sidewalk width matrix

The following matrix should be utilized to determine sidewalk zones based on the width from the face of the vehicular curb to the building face. For sidewalk sections that exceed 15'-0", Amenity Zone, Walk Zone, and Building Zone dimensions may vary based on anticipated traffic volumes, but curbed planters should not be less than 4'-6" in width. Bus shelters can be accommodated in an Amenity Zone of 4'-6" or larger. All design solutions must meet the current City of Columbus ADA Rules and Regulations.

	Sidewalk Width	8,	9'	10'	11'	12'	13'	14'	15'	16'	17'	18'	19'	20'	>20'
	Curb Zone	2'-6"	2'-6"	2'-6"	2'-6"	2'-6"	2'-6"	2'-6"	2'-6"	2'-6"	2'-6"	2'-6"	2'-6"	2'-6"	2'-6"
	Amenity Zone	0"	0"	2'-6"	3'-0"	3'-6"	3'-6"	3'-6"	4'-6"	4'-6"	4'-6"	5'-6"	6'-0"	6'-0"	6'-0" min
١	Walk Zone	5'-6"	6'-6"	5'-0"	5'-6"	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"	6'-0" min
	Building Zone	0"	0"	0"	0"	0"	1'-0"	2'-0"	2'-6"	3'-0"	4'-0"	4'-0"	4'-6"	5'-6"	8'-0" max
		No Trees		Trees in grace can overlap		Trees in planters. Anticipated pedestrian volumes may increase walk zone width. Balance tree planter dimensions with outdoor dining. Bus shelters can be accommodated in amenity zones 4'-6" and greater									

4.3 TYPICAL STREETSCAPE COMPOSITION

The rhythm of streetscape elements along a corridor begins with the spacing of parallel parking. Parking meters are typically located at the end of the parking spaces and should be accessible from the Walk Zone. Next, street lighting should be placed at the locations necessary to achieve the required illumination for vehicular traffic. The lights should be placed behind parking meters to allow street trees and curbed planters to occupy the spaces between parking meters. This establishes the basic rhythm of major elements within the Amenities Zone.

Intersections throughout Downtown should also be treated consistently. When required, traffic signals and curb ramps should be located first and conform to all required traffic control standards. Specialty pavements should be used to identify the pedestrian corners and provide a visual cue to pedestrians of the crosswalks and curb ramps. This pavement should also be utilized in the pedestrian crosswalks.

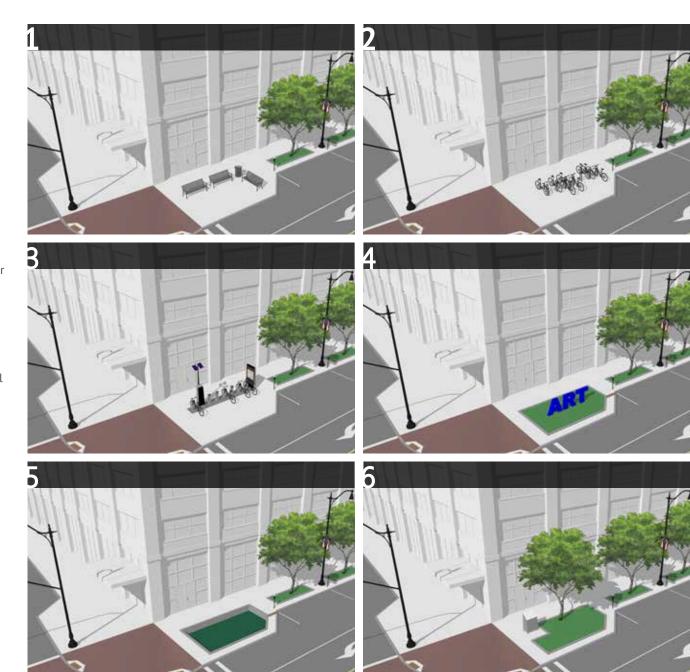


When parallel parking exists, and is not limited by restricted hours, pedestrian bump outs should be utilized to minimize pedestrian crossing distances and to create additional areas for pedestrian queuing and/or amenities within the streetscape. These areas can be used for a variety of elements including the following:

- 1. Furniture (including benches and trash receptacles)
- 2. Bike racks
- 3. Bike Share Stations
- 4. Public art
- 5. Green Infrastructure
- 6. Utility infrastructure with screening. Refer to City of Columbus Traffic Signal Design Manual for Downtown.

Elements located in the bump out areas shall not interfere with safe vehicular sight lines.

The compositional framework described in this chapter illustrates the desired function and general spatial relationships of all Downtown streetscapes. The following chapter provides more detailed guidance for the specific placement and material specifications for all streetscape elements.







The final step in designing a streetscape is the selection of the specific elements and materials. The following sections provide detailed information on the standard elements and materials that make up the Downtown streetscape. In each section, important cross reference information is provided that will help direct the designer/engineer to the very latest standard details, drawings, or references that will further help them complete the design process. Many of these references can be accessed via the following City of Columbus (COC) links:

Standard Drawings:

https://columbus.gov/StandardDrawings/

Construction Materials Specifications: http://columbus.gov/Templates/Detail.aspx?id=65097

Supplemental Specifications:

http://columbus.gov/Templates/Detail.aspx?id=65099

Specific materials that are listed represent the standard for aesthetics and performance. Other materials may be substituted, but they will be required to meet the performance standards of the products listed herein. The Department of Public Service maintains a list of approved products for Downtown streetscapes. New products may be approved through the Product Review Committee. This approval process is outlined in Section 6.3.

Cross Reference

- COC CMS 608 and COC Std. Dwg. 2300 (Concrete Sidewalk)
- COC SS-1524 (Vehicular Brick)
- COC Std. Dwg. 2301 (Pedestrian Brick)

SIDEWALKS

Sidewalks shall be gray concrete with a light to medium broom finish or buff wash finish. Sidewalks at corners, including the crosswalk, shall be brick with concrete containment banding. Detectable warning tiles shall be cast iron or granite.

placement guidelines

- Install concrete and brick per COC Standards
- Install clay brick on bituminous setting bed on concrete base per COC Standards.
- Meet all ADA and COC Standards for cross slopes and curb ramps.
- Install ADA detectable warning plate per COC Standards.

material standard

Sidewalk

 Concrete, light to medium broom finish, perpendicular to traffic flow, 5-0"x5-0" minimum joint pattern, generally square, with 1/4" wide saw cut joints. A buff wash finish may be substituted, but a consistent finish should be used between public street intersections.

Pedestrian Pavement at Intersection Corners

 Pine Hall Brick "English Edge Full Range", 8"x4"x2-1/4" minimum thickness, or approved equal.

Crosswalk Pavement

 Pine Hall Brick "English Edge Full Range", 8"x4"x2-3/4" minimum thickness, or approved equal.

Detectable Warning Plate (cast iron)

 Neenah Detectable Warning Plate, 24"x24", East Jordan Iron Works Detectable Warning Plate.

Detectable Warning Paver (granite)

Wausau Red or Radient Red, or approved equal.





STREET CURBS

Street curbs shall be granite for long-term durability and aesthetic value.

placement guidelines

• Install granite curb per City of Columbus Standards.

material standard

High Street

Dark Mahogany Granite

Downtown Distributors

- Mount Airy Granite
- Downtown Distributers include Mound Street and Fulton Street (east of Third Street), Lester Drive and Elijah Pierce Avenue.

All Remaining Streets

- Caledonia Granite
- Mound Street and Fulton Street in River South (west of Third Street).

Cross Reference

- COC CMS 609 (Curbing)
- COC Std. Dwg. 2005













5.3 ALLEYS Alleys shall

Alleys shall be paved per City of Columbus (COC) Standards.

placement guidelines

- Consider alleys as shared pedestrian and vehicular space when pedestrian traffic is high.
- If alley is shared space, consider paving with clay brick.
- If alley is predominately used for service, pave alley with either asphalt or concrete.
- Concrete curbs may be used in alleys.

material standard

Clay Brick

• Pine Hall "English Edge Ironspot", with lugs, 2-3/4" minimum thickness, or approved equal, installed in running bond pattern perpendicular to traffic flow. Install on bituminous setting bed on concrete base per COC Standards.

Concrete Pavement

 Medium broom finish with sawcut joints per COC Standards.

Asphalt Pavement

Per COC Standards.

Concrete Curbs

Per COC Standards.

Cross Reference

- COC CMS 448 (Asphalt Pavement)
- COC CMS 452 (Concrete Vehicular)
- COC SS-1524 (Brick Vehicular)
- COC Std. Dwg. 2151 (Alleys)
- COC Std. Dwg. 2000 (Concrete Curb)









LIGHTING

Street and pedestrian lighting is an essential component of Downtown streetscapes. Lighting provides critical vehicular and pedestrian safety and security and contributes to the visual unity and character of the street.

placement guidelines

- Place all street light poles a minimum of 30" from the face of the curb (or centerline distance of 3'-6" from face of curb).
- Spacing of all street lighting to meet footcandle levels as established by City of Columbus Division of Power standards
- Align poles with ends of parking stalls and parking meter locations to avoid conflicts with pedestrians exiting vehicles.
- Place street light conduit in the pedestrian Walk Zone with sweeping conduit runs to the pole locations in order to avoid tree pits and other elements that may be located in the amenity zone.
- Place light poles a minimum of 10-0" from the trunks of street trees. Refer to section 5.6 for more on tree placement, tree species selection and tree pruning.

material standard

• Current standards for light poles and lamps in Downtown include taller teardrop-type fixtures for street lighting and lower acorn-type fixtures for specialty pedestrian areas. The type of light fixture to be used on a given street is defined in the Downtown Street Light Master Plan.



Street Light Conduit Location







Cross Reference

- COC Street Light Specifications (fixture and pole types, lighting source, light distribution pattern, footcandle levels)
- COC Downtown Street Light Master Plan

TRAFFIC SIGNALS

Consistent use of traffic signals are essential for safe travel through Downtown for both pedestrians and vehicular traffic. Standards and guidelines were established for signal poles and mast arms as part of the City of Columbus Traffic Signal Design Manual for Downtown.

placement guidelines

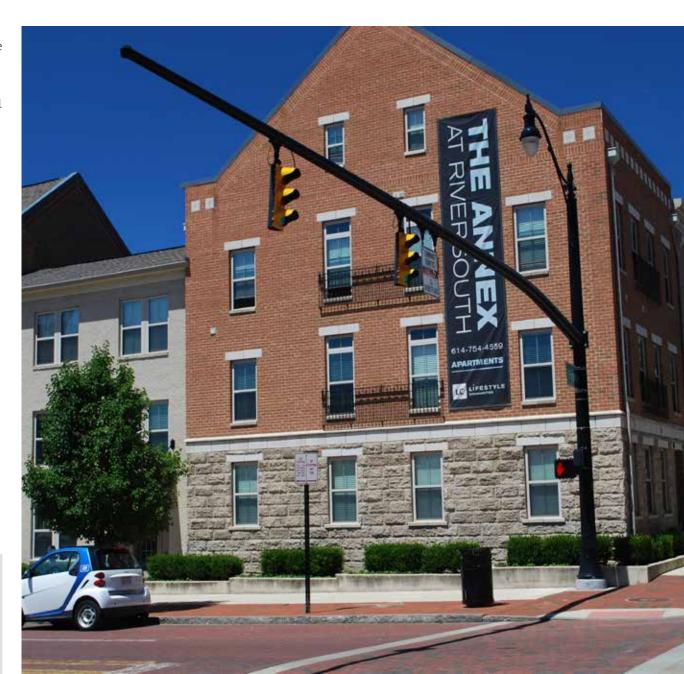
- Place all signals and pedestrian push button controls per City of Columbus Standards.
- Avoid installing regulatory signage on mast arm pole.
- Consider pedestrian hybrid beacon or pedestrian crossing beacons if warranted by pedestrian traffic.
- Traffic signal controller cabinet may be placed in bump outs away from pedestrian circulation.
- See Traffic Signal Design Manual for Downtown for six factors to consider for traffic signal control cabinet placement.

material standard

• See City of Columbus Traffic Signal Design Manual for Downtown for all material and product specifications.



COC Traffic Signal Design Manual for Downtown



TREES & CURBED PLANTERS

Street trees are required along all public streets in Downtown Columbus. The creation of a healthy urban forest is critical to the long-term success of the Downtown. In addition to ecological benefits, a canopy of trees contributes to the comfort and walkability of the urban environment and consequently yields tangible social and economic benefits.

Benefits

Environmental: reduced air pollution, reduced urban heat islanding impacts and improved hydrologic conditions.

Economic: increased property values and increased retail spending.

Social: increased opportunities for interaction resulting from the creation of comfortable urban spaces. These opportunities include one-on-one interaction, outdoor dining, and small group gatherings.

Planting Environment

Urban conditions such as heat, drought, vandalism, and salt application for de-icing creates a very difficult environment for the growth of healthy trees. Considerable research and experimentation has been done to create better soil conditions, better tree cultivars, and better maintenance procedures. This plan recognizes that the best approach to improving tree health is to maximize the surface area and soil volume for each specimen. Where the appropriate width exists on Downtown streets, this will be best accomplished by a curbed planter.

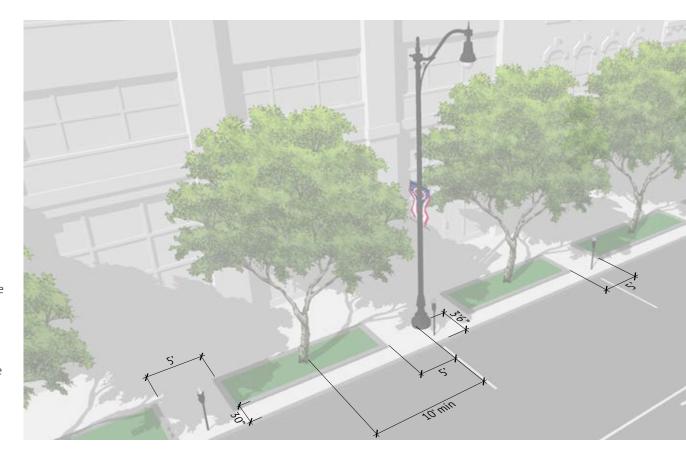
- National Association of Arborists Tree Pruning
- American Association of Nurserymen's American Standard for Nursery Stock
- COC CMS 661 (Trees, shrubs, and vines)





placement guidelines

- Place curb planters between parking meters (and/or ends of parking stalls). Provide a minimum of 5'-0" between planters for access to meters. Where streetlights exist, provide 5'-0" clearance between the curb planter and one side of the light pole base to provide an accessible route to the meter. Place planter curb 30" behind street curb face.
- If an accessible ramp or loading area is required adjacent to a parking space, reduce the planter size to accommodate the access route.
- Place street trees in the center of curbed plant beds. Where street lights exist, a minimum distance of 10-0" should be maintained between the tree trunk and the light pole. Trees should not conflict with intersection sight distances.
- Monocultures of trees should be used to unify a block or small district. In order to prevent large scale loss of tree canopy due to unforeseen disease, monocultures of trees should not exceed one city block.



tree pruning standards

The care and maintenance of the tree canopy is critical to sustaining a safe and vibrant Downtown. The following guidelines and exhibits illustrate the anticipated growth of trees and the desired canopy height and clearances required to minimize conflicts with street lights, regulatory signs, and storefront identification signs. All tree pruning must be performed by a certified aborist.

Clearance to light poles:

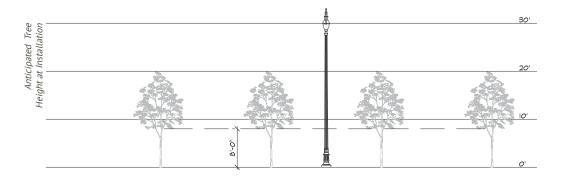
Prune limbs away from below light source as necessary to allow light to fall on the street. Adhere to industry accepted pruning techniques and ANSI A300.

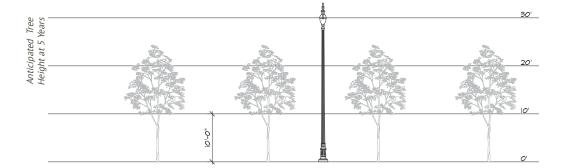
Clearance to regulatory signs:

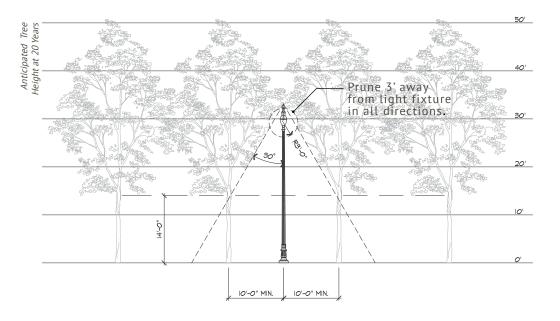
Prune limbs away from face of sign as necessary to allow full view of sign from the street.

Canopy Height Guidelines:

In order to maintain visibility below the tree canopies, the following guidelines should be followed as a tree matures. At time of installation, a 4" caliper tree will typically be about 18'-0" in height and the bottom of the canopy should be maintained at 8'-0" above the sidewalk surface. As the tree grows, the canopy can be maintained at a height of 10'-0" to 12'-0". After 15 to 20 years, the canopy height should be maintained at 14'-0" from the sidewalk surface.







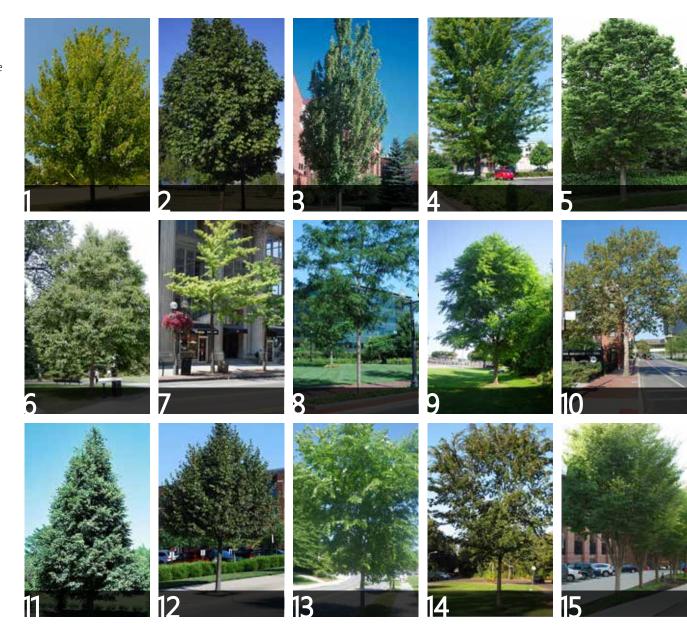
The following trees have been selected as the standards for Downtown streetscapes. They have been selected based on their history of performance in urban environments which can be largely attributed to their ability to tolerate heat, drought, and salt. The shape and forms of these trees differ and should be considered when selecting a tree for a specific corridor.

Tree Size

• 4" Caliper, B&B

Tree List

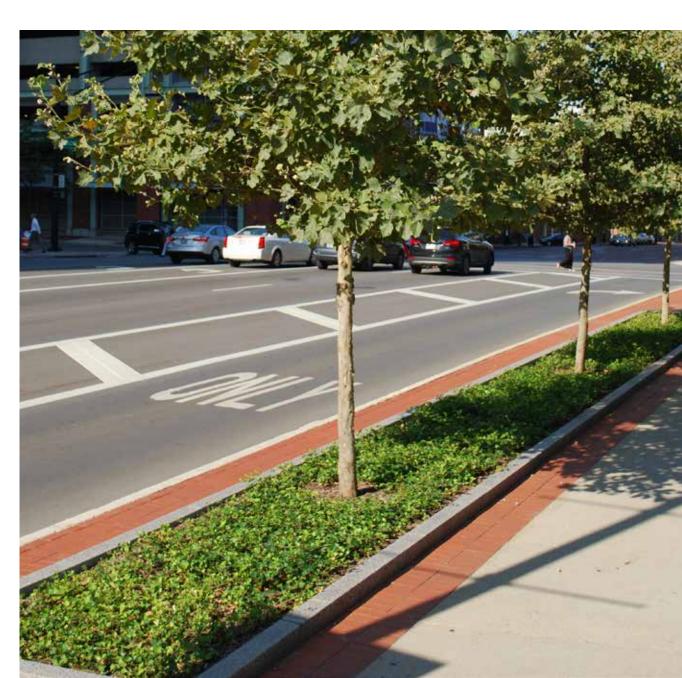
- 1. Sienna Glen Freeman Maple
- 2. Parkway Norway Maple
- 3. Armstrong Red Maple
- 4. Sun Valley Red Maple
- 5. Magnifica Hackberry
- 6. Hardy Rubbertree
- 7. Princeton Centry Ginkgo
- 8. Imperial Honeylocust
- 9. Espresso Kentucky Coffeetree
- 10. Exclamation London Planetree
- 11. Corinthian Littleleaf Linden
- 12. Greenspire Littleleaf Linden
- 13. Princeton Elm
- 14. Allee Chinese Elm
- 15. Green Vase Zelkova



material standard (continued)

Curbed Planters

- Minimum dimensions: 3'-6"x10'-0" (outside dimensions - face of curb to face of curb).
- Recommended dimensions: 6'-0"x15'-0".
- Planter bed set back 30" from face of street curb to face of planter curb.
- Planter curb type: granite, match street
- Plants may include English Ivy, Liriope, Vinca.
- Plant size and spacing: 1 gallon container, 12" on center.
- Provide underdrains and connect into curb underdrain.



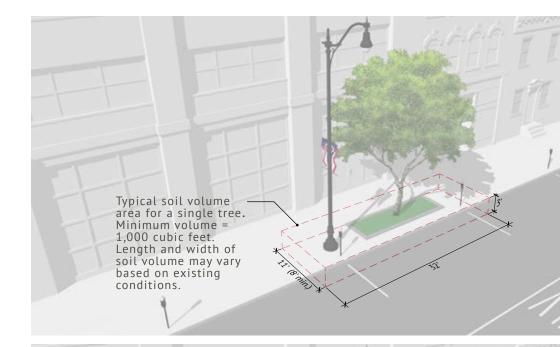
Soil

A large root zone for trees is critical to creating a healthy tree canopy in Downtown Columbus. In all streetscape projects, maximizing the size of continuous soil volume should be a priority.

- Planting Soil: Loamy soil free of debris with pH 6.5-7.5 and 4%-6% organic material amended with Comtil produced by the City of Columbus.
- Engineered Soil: Utilize current City of Columbus engineered soil specifications.
- Soil depth shall be 36".
- For two or more trees, provide a minimum soil volume of 750 cubic feet per tree. Connect tree plantings together with engineered soil. Suspended pavement systems may be considered with Department of Public Service approval.
- For a single tree, provide a minimum soil volume of 1,000 cubic feet.
- Soil volume is comprised of a combination of planting soil and engineered soil or suspended pavement.

Irrigation

- Irrigation is not required for plant beds or trees.
- When irrigation is used the following standards apply.
 - 1. A drip system is required.
 - 2. A maintenance agreement between the property owner and the City is required.
 - A backflow preventer and meter are required in an above ground hot box. Paint hot box green.





UTILITIES

Downtown streets contain a variety of above and below-ground utilities. It is the City's goal to ultimately bury all utilities within the Downtown Underground Utility District.

placement guideline

- When possible, place above-ground utility cabinets and/or boxes away from pedestrian circulation. For traffic signal controller cabinet locations, refer to Section 5.5.
- Maintain ADA pedestrian access.
- Provide direct street access to fire hydrants for annual hydrant flushing.

material standard

Provide ADA compliant grates for vaults.









- COC Department of Public Utilities Standards
- COC Traffic Signal Design Manual for Downtown

GREEN INFRASTRUCTURE

Post construction stormwater quality and quantity controls are required by the City of Columbus Stormwater Drainage Manual. When the City or a developer rebuilds a street, they are required to implement Green Infrastructure (GI) strategies outlined in the Stormwater Drainage Manual and the Blueprint Columbus Green Infrastructure Design and Implementation Guidelines.

placement guidelines

- The rhythm of trees shall be maintained with the implementation of GI structures.
- Plants in GI structures need to be replaced when GI structure soil is replaced or more frequently if necessary.
- Investigate if porous pavement in the parking lane is viable for stormwater storage thereby eliminating the need for stormwater basins in the sidewalk.

material standard

Bio-Retention Basin

- Granite curbing to match tree planters.
- Refer to GI Guidelines.

Trees

Do not plant trees in bio-retention basins.

Plants

Refer to planting palette options in the GI Guidelines.

Other Materials

See GI Guidelines for detail information regarding bio-retention soil media, permeable pavement and porous pavement, and aggregate drainage layer.

- COC Green Infrastructure Design and Implementation
- COC Stormwater Drainage Manual



MEDIANS

Medians may be implemented to calm traffic, provide pedestrian protection or to aesthetically enhance a corridor. Medians can be either raised or flush. In some cases, flush paver medians can serve as left turn lanes. Location of medians are determined by the City-wide Mobility Study.

placement guidelines

- Consider flush medians in appropriate districts.
- If raised medians are proposed, meet all City of Columbus (COC) clearance requirements.
- Raised medians will likely require a maintenance agreement for the long-term care of plantings, irrigation, and specialty materials.

material standard

Clay Brick for Flush Medians

• Pine Hall "English Edge Ironspot", with lugs, 2-3/4" minimum thickness or approved equal, installed in running bond pattern perpendicular to traffic flow. Install on bituminous setting bed on concrete base per COC Standards.

Concrete Pavement

 Medium broom finish with sawcut joints per COC Standards.

Asphalt Pavement

Per COC Standards.

- COC CMS 452 (Concrete Vehicular)
- COC SS-1524 (Brick Vehicular)
- COC Standard Drawings









5 10 PUBLIC ART

Public art is encouraged throughout Downtown provided selection and placement of art within the right-of-way adheres to the Columbus Art Commission policies and procedures.

guidelines

- Design and placement of art in the public rightof-way, temporary or long term, must be approved by the Columbus Art Commission. The proposed art must also be presented to the Downtown Commission for review and comment. The Columbus Art Commission will take this comment under consideration when reviewing artwork for approval.
- Location of art must not interfere with the free movement of vehicular and pedestrian traffic. Art must meet intersection clearance standards and all ADA pedestrian clearance standards.
- Should art require utility access, there must be an agreement for water or power provided by the City or an agreement to allow private utility connections (water, power, data, etc.) through the right-of-way.
- Construction, alteration and renovations of buildings and facilities, although necessary, can present an eyesore, create barriers and disrupt Downtown pedestrian and traffic movement.
 Owners and developers are strongly encouraged to retain artists to create temporary public art murals, integrated with construction fencing, appropriate to specific locations. These solutions must be approved by the Columbus Art Commision and the Public Service Director.

- Columbus Art Commission (City Code Section 3315)
- Downtown Design Guidelines







Intersect, Stephen Canetto, 1992

OUTDOOR DINING

Outdoor dining opportunities enliven the street and provide additional opportunities for economic success for Downtown retailers. Every effort should be made to accommodate this use without sacrificing the basic function of the adjacent streetscape. Outdoor dining solutions shall be reviewed by the Downtown Commission.

placement guidelines

- Dining may occur where sidewalk dimension is greater than 16'-0".
- Dining areas shall not alter the established grade of the sidewalk.
- Dining areas shall comply to all applicable building and fire codes and ADA rules and regulations.

material standard

Fence

- Fence is required if alcohol is served.
 Placement of fence is subject to all State of Ohio requirements based on use.
- Minimum 36" height., maximum 42" height.
- Steel or aluminum fence, commercial grade. Steel fence shall resist rust (powder coated and/or galvanized).
- Creativity in fence design is encouraged and may include custom railings, planters, pots, etc.

- Downtown Design Guidelines
- Sidewalk Zone Dimension Matrix
- Ohio Division of Liquor Control guidelines for fencing, if applicable
- COC 910 Permit for Sidewalk Dining





FURNITURE

5.12 **FURNITURE**Streetscape furnishings can visually unify the Downtown streetscape. Furnishings shall be located within the Amenity Zone or, if space allows, within the Building Zone. Street furnishings shall not interfere with access to parking meters or ADA curb ramps. Deviation from standards are allowable. Refer to Section 6.2.

placement guidelines

- Locate benches in curb bump outs near street and/or alley intersections. Benches may be placed in a midblock location within the Building Zone if space allows. Benches should generally face the sidewalk although existing site conditions may dictiate bench orientation.
- Place litter receptacles adjacent to recycling receptacles. Department of Public Service (Division of Design and Construction and Division of Refuse) approves litter receptacle locations.
- Locate bicycle racks in curb bump outs near street and/or alley intersections. Bicycle racks may be placed in a midblock location within the Amenity Zone if space allows. Special consideration should be given to locating bicycle racks bear building entries.

material standard

Bench

- Victor Stanley Model RB-28 with intermediate armrests, or approved equal, black gloss finish. Permanently install bench on pavement.
- Victor Stanley Model RB-12 backless bench with intermediate armrests, or approved equal, black gloss finish. Permanently install bench on pavement.

Litter / Recycling Receptacles

DuMor Model 107, or approved equal, black gloss finish. Permanently install receptacle on pavement.

Bicycle Racks

Huntco Model BR3, DuMor Model Bike Rack 83. Permanently install bicycle rack on pavement.







- COC CMS 608 for concrete sidewalks
- COC Std. Dwg. 2400 (Litter Receptacle)

5.13 PARKING LOT SCREETS Surface parking lots in the Downtown interrupt the continuous flow of buildings and uses that create a vibrant environment for people. When an institution or developer creates or renovates a surface parking lot, the Downtown Design Guidelines provide direction for the screening of the lot. In summary, these guidelines provide the following options.

> Option 1: Masonry wall between three and four feet in height.

Option 2: A combination of masonry piers and decorative metal fencing set in a minimum 3'-0" wide planting bed.

Option 3: Alternatives to Options 1 and 2 may be proposed. "Materials and design incorporated in alternative proposals should incorporate high quality design and materials"

placement guidelines

- Provide parking lot screening solutions consistent with the Downtown Design Guidelines.
- Provide parking blocks on private parking lot to protect screening improvements.









Cross Reference

Downtown Design Guidelines

VAULTS

Vaults exist throughout Downtown and were originally used for deliveries and additional building storage. The City will evaluate vaults within the public realm on a case-by-case basis when discovered during a capital improvement project. Some vaults will be filled and streetscape improvements can occur as normal. When vaults are determined to remain, then the following aesthetic guidelines and standards apply.

placement guidelines

- The rhythm of trees shall be maintained through the use of decorative pots.
- Trees in pots shall align with planted trees along the same block.
- Trees in pots typically have a shorter life span and may need to be replaced after several years.

material standard

Pots

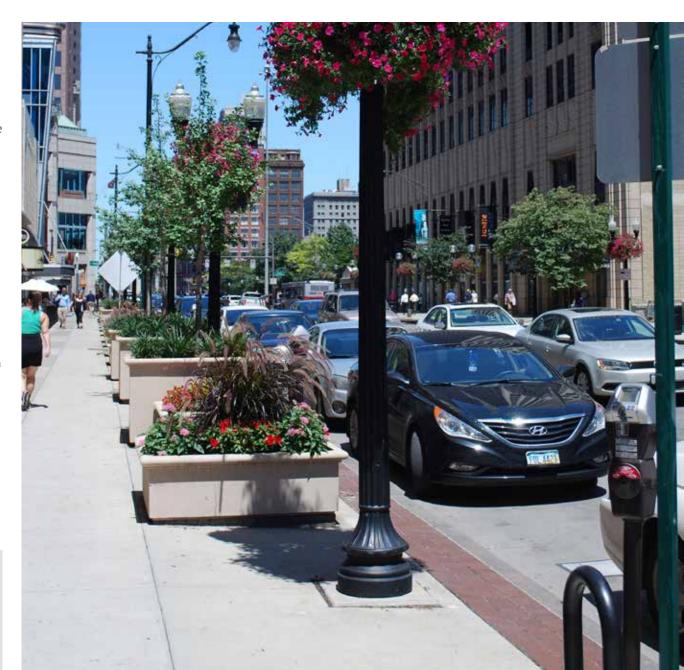
- Appropriate for Columbus weather and can withstand the effects of salt.
- Minimum size 4'-0"x4'-0" square by 3'-0" tall.

Trees

 Smaller shade trees or fruitless ornamental trees such as Ivory Silk Tree or Trident Maple.

Cross Reference

• Columbus Recreation and Parks Street Tree List (small trees)



TRANSIT FACILITIES

Many Downtown streetscapes need to accommodate transit stops. Special consideration should be given at these locations to small gatherings of riders and accessibility on and off of the bus.

placement guidelines

- Trees in the immediate vicinity of bus stops shall be placed in tree pits and protected with either standard iron grates or paver grates.
- Trees shall be planted in structural soil and tree pits shall be connected with structural soil to form continuous tree pits.
- Tree species shall be upright in habit to minimize conflicts between buses and tree branches. Align trees with all trees on the block.
- Trees and other streetscape amenities should be arranged to allow access to the front and back doors of the bus.
- When locating transit facilities within the streetscape, reference COTA's Bus Stop Guidelines. All associated ADA transit guidelines shall be followed.
- Bus shelters should be installed within the amenity zone when possible and comply with COTA's placement guidelines.

material standard

Tree Grate

- Iron tree grate and frame, ADA compliant, fastened securely to frame with tamper resistant hardware.
- Minimum size 4'-0"x4'-0". Recommended size 5'-0"x5'-0".

Paver Grate

- Install per manufacturer's specifications.
 Include landscape fabric beneath pavers to allow for sanding of joints.
- Minimum size 5'-0"x5'-0".

Clay Brick

 Pine Hall "English Edge Full Range", or approved equal.



- Central Ohio Transit Authority (COTA) Bus Stop Design Guide www.cota.com/projects/bus-stop-design-quide.aspx
- COTA NextGen Plan www.cota.com/projects/nextgen.aspx





6.1 APPLICATION OF STANDARDS & GUIDELINES

The standards and guidelines of this document establish a clear vision for how streetscapes should look and function over time. This vision will be realized through numerous streetscape improvement projects. Some of these improvement projects will be associated with new private development projects while others will be initiated by the City of Columbus (COC) as capital improvement projects.

what triggers a streetscape improvement project?

Not every new project will be required to implement streetscape improvements. Infill development projects that impact a small portion of a block may not be required to implement all streetscape improvements. Other projects may not need to improve certain streetscapes if a larger public realm improvement project is already being planned for the corridor. Replacement and repair of small segments of curb and sidewalks will also not require a full renovation of the streetscape. The following is a list of typical conditions that would likely require streetscape improvements. Refer to City of Columbus 905 Permit for Sidewalk Replacement.

- A new infill development project that occupies 150 lineal feet of public street frontage or 50% or more of a block. A block is defined as the distance between two public streets, excluding alleys.
- 2. A new infill development project where replacement of the adjacent sidewalk is required based on poor existing condition or expected damage from construction. The need for sidewalk replacement shall be determined by the Department of Public Service.

- 3. Significant building renovation projects where 150 lineal feet of public street frontage or 50% or more of the building facades of a block are being renovated.
- Capital improvement projects where 150 lineal feet or more of a public street is being rebuilt and/or curbs are being replaced or relocated.
- Capital improvement projects where 150 lineal feet or more of a public sidewalk is being replaced.
- 6. Private improvement projects where 150 lineal feet or more of a public sidewalk is being replaced or upgraded.

6.2 DEVIATIONS FROM STREETSCAPE STANDARDS

While these standards are intended to unify the Downtown district, some deviations will help create a more diverse and memorable experience. Creativity and originality is encouraged with certain elements of the streetscape (e.g. furniture, fences, and railings) while other elements will rarely be deviated from based on the maintenance and durability issues (e.g. traffic signals and lighting standards). The following outlines the process by which deviations from the adopted standards can be approved.

common deviations

Customization of the following elements are encouraged in the design of a new segment of streetscape.

Pavement at Major Building Entries

While pavement standards exist for sidewalks, intersection corners, and crosswalks, other options for pavement may be used to accentuate a major building entry. Specialty paving materials and patterns should have an aesthetic relationship to the adjoining building and/or the interior entry space. This pavement change should be limited to the width of the buildings' doors or the architectural element associated with the entry. If the paving material is not on the Department of Public Service

list of approved materials, then the owner will need to obtain approval through the department's Product Review Committee. Refer to Section 6.3 Product Review Committee Process.

Custom Furniture

Benches and bike racks represent opportunities for custom design elements that enrich the public realm. Custom alternatives to the standards for furniture may be approved provided that the element is constructed of durable and maintainable materials. The Department of Public Service will request a non-binding recommendation from the Downtown Commission or the Commission's administrative staff for custom alternatives.

Customized Fences & Railings

Fences and rails used for parking lot screens, outdoor dining areas, and curbed planters may be customized. Original alternatives for fences and railings that aesthetically compliment the adjoining architecture may be approved provided that the element is constructed of durable and maintainable materials. The Department of Public Service will request a non-binding recommendation from the Downtown Commission or the Commission's administrative staff for custom alternatives within the public right-of-way. Outdoor dining is subject to all State of Ohio requirements based on use.













substantial deviations

Substantial deviations from the standards and quidelines may be warranted based on a variety of conditions. It may be appropriate to visually distinguish a district or a large institutional campus as a special destination within the context of the greater Downtown. The following identifies the types of substantial deviations that can be expected and the location where such a deviation may be appropriate.

Examples of Substantial Deviation

- 1. Custom curbing or sidewalks for a block or multiple blocks.
- 2. Street lighting alternatives.
- 3. Significant deviations to tree planters or rhythm of street trees.
- 4. Tree lawns in non-residential locations.

Examples where Substantial Deviation may be Appropriate

- 1. Large Institutional Campuses Examples include the City Complex, the County Complex, the State House, higher education campuses, healthcare campuses, and the Main Library.
- 2. Significant Public Spaces Existing examples include Columbus Commons and the Scioto Mile.
- 3. Districts Existing examples include the Arena District and River South. Districts requesting substantial deviations from the standards will require a consensus of 75% of property owners within that district and possibly a long-term maintenance commitment.

Substantial deviations from the standards will require Downtown Commission review which will include a non-binding recommendation to the Department of Public Service. In addition, all new materials must be reviewed and approved by the Product Review Committee.







6.3 PRODUCT REVIEW COMMITTEE PROCESS

beginning the process (1 week)

The process is initiated by an applicant (owner, developer, consultant or manufacturer/supplier) submitting a request letter to the City Engineer for a particular product. The letter should describe the requested material, any specification and current testing information available, and a description of the proposed application of the product. The City Engineer will contact other City Division Administrators as appropriate for input. The City Engineer will provide a response regarding the best course of action for a particular product. This recommendation could have one of three basic outcomes. They are as follows:

- City Engineer rejects the proposed material based on significant concerns regarding the ability of the product to perform at an acceptable level.
- 2. City Engineer chooses to use the product as a "pilot project". The material would be installed and would include quality assurance in the field during construction, final review of the in-place installation, and possibly post-construction testing. Following this process, a determination would be made to add or reject the material/manufacturer from the "City approved product/producer list"
- City Engineer chooses to further evaluate the nonstandard material. The City Engineer directs the submittal to the New Product Committee (NPC) for consideration. Summary of the NPC consideration process is as follows (see the following link for New Products, Materials, and Procedures Application www.columbus.gov/workarea/downloadasset. aspx?id=71491

testing process (2-3 months)

Applicant is responsible for all costs associated with required testing.

Step 1: Testing (4 to 6 weeks)

- The City Engineer authorizes the process to move forward. Applicant to coordinate with NPC coordinator in the Division of Design and Construction - Construction Section. (1 week)
- 2. Applicant submits New Products Procedure Application along with all relevant ASTM testing information and samples of the materials. (3 to 6 weeks)

Step 2: Supplier Presentation to Committee (1 week) Applicant (may include owner developer consultant a

Applicant (may include owner, developer, consultant and product supplier) provides a presentation to the Product Review Committee. Committee will have testing results from the Testing/Materials Lab, if applicable, and will ask Applicant questions about the product and its application. Committee votes on whether to recommend the material to the City Engineer for acceptance onto the approved manufacturer's list. Manufacturer/supplier may be requested to submit additional information.

Step 3: Committee Recommendation

Summary (2 weeks)

NPC Coordinator will prepare brief summary and ask the committee for feedback before sending the document to the City Engineer for final approval.

Step 4: City Engineer Approval (1 week)

Step 5: Construction

During the construction of the project, the Testing/Materials Lab will perform a quality assurance inspection/test of the project.

Note: The Department of Public Service may request a non-binding recommendation from the Downtown Commission or the Commission's administration staff for product design and aesthetics.



