

CITY OF RICHMOND

# Urban Design Guidelines



RICHMOND PLANNING &  
DEVELOPMENT REVIEW  
**PDR**

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# Introduction

The Richmond Urban Design Committee (UDC) is an eleven (11) member advisory committee that was created by City Council in 1968. Its purpose is to advise the City Planning Commission on the design of City projects, certain private uses on public property (such as encroachment applications), and other items the Planning Commission may request. The UDC's primary review is "general location, character, and extent" through consistency with the City's Master Plan, but may make suggestions on specific design items. The UDC's findings are then forwarded to the City Planning Commission.

The Urban Design Guidelines establish a set of expectations and goals for applicants, with the purpose of consistency, to be used by the UDC and its staff when reviewing applications. These guidelines are recommendations only and should not be interpreted as regulations. The guidelines are supplementary and subordinate to the requirements of the City's zoning ordinance, its building codes, and all other city, state and federal regulations.

The intent of these guidelines is not to be overly specific or to dictate certain designs or styles. Not all guidelines will apply to every design situation. These guidelines are intended to provide a general design framework for the various types of applications reviewed by the Urban Design Committee to ensure high-quality, well-designed projects for the City of Richmond.

These guidelines do not attempt to address historic preservation goals. For properties located in City Old and Historic Districts, National Historic Districts, or that are historic in character, the Planning Commission may send such projects to the Commission of Architectural Review (CAR) for review instead of, or in addition to, the UDC.

## General Location, Character, and Extent

The UDC's primary review is the "*general location, character, and extent*" of a proposed project. This is established in section 17.07 of the City Charter, as well as State Code.

The purpose of this review is to establish consistency with the City's Master Plan, Richmond 300. If the project is not consistent or if the project is not addressed in the Master Plan, the sponsoring City agency should explain, in detail, the need for the project and its relationship to the overall plan. The master plan is a strong guiding document but is not a regulation, which allows for flexibility to address the evolving needs of an active urban area.

**"General"** is interpreted that if an engineer, architect, or professional is needed to design an item – it is not general. One way to think about it is that "*general*" items should be at a high enough level to fit as a check box item on a page in the master plan.

**"General Location"** should include consideration for if the location is appropriate to serve the purpose of the project, not negatively impact surrounding uses, and have adequate connectivity to surrounding infrastructure to fit into larger networks and larger needs shown in the master plan.

**"General Character"** should include consideration for the design details of the project. Does the design meet the goals of the Master Plan and Urban Design Guidelines?

**"General Extent"** should include consideration for if the project over-addresses or under-addresses the needs of the surrounding community and larger City. It also addresses how a project fits into larger networks, especially transportation networks.

# Richmond 300 Master Plan

The UDC's primary review is "general location, character, and extent" through consistency with the City's Richmond 300 Master Plan. Guidance from the master plan should be the first step to review projects. The master plan includes the following:

**City-wide Vision:** In 2037, Richmond is a welcoming, inclusive, diverse, innovative, sustainable, and equitable city of thriving neighborhoods, ensuring a high quality of life for all.

**WELCOMING** - Feeling accepted and comfortable despite age, gender, race, sexuality, or income.

**INCLUSIVE** - Accepting differences and intentionally involving diverse opinions, attitudes, and behaviors.

**DIVERSE** - Intentionally creating a state of mixed people, institutions, and mixed-use places.

**INNOVATIVE** - Nurturing new ideas, methods, devices, or businesses.

**SUSTAINABLE** - Meeting the current environmental, social, and economic needs of our community without compromising the ability of future generations to meet those same needs.

**EQUITABLE** - Providing equal or equivalent access to goods, services, status, rights, power, and amenities.

**THRIVING** - Energizing communities with opportunities for and support of cultural, civic, and economic involvement.

The City intends to reach these overall goals through five (5) topic visions:

**High-Quality Places** – Richmond is a well-designed city of communities interconnected by a network of Nodes, public facilities, and open spaces. Richmond's unique neighborhoods and districts, both historical and new, support a diversity of uses, the equitable accommodation of all phases of life, and the efficient use of land to promote sustainable and healthy lifestyles.

**Equitable Transportation** – Richmond prioritizes the movement of people over the movement of vehicles through a safe, reliable, equitable, and sustainable transportation network. Walking, biking, and transit options are the most convenient and used forms of transportation in Richmond. Richmond's multi-modal transportation system is high-quality and easy for all people to use regardless of income and physical abilities.

**Diverse Economy** – Richmond is a first choice location for businesses and investment because the city's transportation, housing, cultural, outdoor, commercial, and institutional amenities create a vibrant city.

**Inclusive Housing** – By preserving and increasing housing options, Richmond supports existing and new residents, regardless of income. As the city grows, Richmond provides options to existing residents, preventing involuntary displacement and reducing housing disparities.

**Thriving Environment** – Richmond is a sustainable and resilient city with healthy air, clean water, and a flourishing ecosystem. Carbon emissions are low, air and water quality are high, and city-wide solid waste production is minimal. The City is positively adapting to the effects of a changing climate, with a built environment that enhances and protects natural assets, including the James River.

## Reference Plans

Plan Name	Year Adopted by City Council
Shockoe Small Area Plan	2024
City Center Innovation District Small Area Plan	2022
<i>Richmond 300: A Guide for Growth</i> Master Plan	2020
Pulse Corridor Plan	2017
VUU/Chamberlayne Neighborhood Plan	2014
Hull Street Revitalization Plan	2013
Richmond Riverfront Plan	2012
Downtown Plan	2009
Monroe Park Master Plan	2009

# Roads, Alleys, and Public Ways

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## Master Plan

The Future Connections Map depicts the envisioned transportation networks.

**Great Streets** are significant entrances to the city and serve as major connectors between city destinations. Great Streets are roadways that require robust attention to make them prominent promenades to the city.

**Street Typologies** denote how the character of a street should change as the adjacent land uses changes.

**Major Mixed-Use Streets** – Carry high volumes of vehicles, pedestrians, and bicycles, through commercial and mixed-use areas – Prioritize use and density-scaled sidewalks and crosswalks. – Incorporate streetscape features, such as trees, benches, and trash receptacles – Ideal locations for transit routes and transit stops – Prioritize the curbside for walking, bicycling, transit, and short-term parking access and loading for local shops and restaurants.

**Major Residential Streets** – Carry high volumes of vehicles, as well as pedestrians and bicycles, through residential neighborhoods – Prioritize for creating sidewalks and crosswalks. – Install street trees as a buffer between sidewalk and street.

**Major Industrial Streets** – Carry high volumes of vehicles, including a high percentage of truck traffic, through industrial areas – Prioritize sidewalks and crosswalks – Install street trees with a buffer between sidewalk and street

## Road Layout

***RVA300 Objective 9.4 – Streets, Bridges, and Connections (Pg.154)** Strengthen the street network by preventing superblocks and encouraging gridded street networks and two-way streets.*

***RVA300 Objective 9.4 – Streets, Bridges, and Connections (Pg.154)** Where feasible, convert one-way streets to two-way streets in consultation with the City’s Transportation Engineers, evaluating balancing the needs of various uses—sidewalks, on-street parking, bicycle infrastructure, and transit access.*

***RVA300 Objective 1.3 - Complete Neighborhoods (Pg.112)** Increase the number of transportation options viable at each Node and Priority Neighborhood by utilizing a Complete Streets approach to allocating space in the right-of-way*

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## Road Design

***RVA300 Objective 6.1 – Equitable Transportation (Pg.135)*** *Develop a network of Great Streets with urban design and multi-modal access that creates beautiful and welcoming corridors throughout the city*

***RVA300 Objective 9.2 – Streets, Bridges, and Connections (Pg.152)*** *Improve and create bridges to strive for a high level of reliability, access, and safety. Improve pedestrian crossing experiences on all bridges over barriers (e.g., James River, the Downtown Expressway, I-195, I-95/I-64, rail lines); pedestrian improvements should include not only sidewalks, but also shading and plantings that improve the walking experience.*

The design of a road or street contributes to the perception of an area and the manner in which individuals interact with the built environment. While street design incorporates numerous details regarding geometrics and construction materials which are beyond the scope of this document, this section provides general guidance on lane widths, on-street parking, medians, pedestrian crossings and intersections. Appropriate treatments within the design of an individual project should be considered based upon the purpose and function of the street. Streetscapes, which include the furnishings, sidewalks, and landscaping contained within the right-of-way outside of the vehicle travel and parking lanes, are addressed in the Community Character chapter.

## Road Safety

***RVA300 Objective 7.1 – Equitable Transportation (Pg.137)*** *Reduce all traffic-related deaths and serious injuries to zero by implementing the Vision Zero Action Plan.*

***RVA300 Objective 7.1 – Equitable Transportation (Pg.137)*** *Prioritize and implement safety treatments on the high-injury street network, especially those aimed to reduce speeding*

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## Road Extent and Lane Width

The width of a street should respond to the volume of traffic it carries. Streets classified as local and collector should generally have widths that are narrower than arterial roadways. The provision of on-street parking, bike lanes, or traffic calming measures may impact the amount of pavement from curb to curb, but the lane widths on local and collector streets should be consistent and in compliance with state and local regulations and design specifics outlined in the City of Richmond's Better Streets Manual.

## On-street parking

***RVA300 Objective 9.5 – Streets, Bridges, and Connections (Pg.155)*** *Implement parking strategies that effectively manage supply and demand of parking, as identified in the Parking Study Report, as shown in Figure 34, and improve the physical appearance of parking.*

On-street parking is important for not only providing for some of the parking needs of adjacent uses, but also as a means of defining the character of a corridor or neighborhood. On-street parking encourages pedestrian activity, providing a buffer between pedestrians and moving traffic, and can be used as a buffer between the travel lane when a bike lane is placed between the curb and street parking.

## Medians

Medians can provide both aesthetic benefits and operational utility within the street network. Landscaped medians can help provide context, support birds and pollinators, and assist in signaling the entrance to an area; and thus should be considered in any gateway project. Neighborhood or commercial district markers and landscaping in medians should be appropriately scaled to ensure the safety of both pedestrians and motorists. Raised medians with curbs are the standard in urban areas, but depressed medians that provide water infiltration should be considered where appropriate. When proposing a depressed median a maintenance plan should be required to ensure the long-term functioning of its storm water capacity, as well as its aesthetic appearance.

## Pedestrian crossings

Pedestrian crossings should generally be confined to intersections. Midblock crosswalks should be discouraged, except for instances of extremely long distances between intersections. In these instances, a signalized crossing is preferred. Pedestrian crossings should be clearly marked and refuge islands should be provided where necessary.

## Intersections

Intersections should be designed to serve pedestrians, bicyclists and motorists in a safe manner. The capacity of an intersection should be designed to accommodate traffic reflective of its use (e.g. a local street versus an arterial route). Curb radii should be small in urban areas and the use of curb extensions, or bulb-outs, is recommended where appropriate. Channelized turn lanes should be used where necessary and should include provisions for the safe passage of pedestrians such as highly visible painted and striped crosswalks and appropriately coordinated pedestrian crossing signals. Roundabouts should be considered in certain situations.

## Provision of New Sidewalk

Where there are currently no sidewalks or where current sidewalk is substandard, new development should provide sidewalks, trees, and other amenities to improve pedestrian connectivity and safety.

## Emergency Vehicles

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## Electric Vehicles

***RVA300 Objective 10.4 – Emerging Transportation Technologies (Pg.158) Increase the number of low-emission vehicles.***

***RVA300 Objective 10.4 – Emerging Transportation Technologies (Pg.158) Seek opportunities to install electric charging stations on publicly owned land, balancing the needs of pedestrians, cyclists, and transit users.***

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## Additional guidance

Detailed guidance regarding each of the issues contained in this section is provided in the City of Richmond's Better Streets Manual. Applicants are strongly encouraged to consult studies and other guidance regarding context sensitive design for roadways such as Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities, Institute of Transportation Engineers, 2006.

## Traffic Management

The Urban Design Committee supports the traffic calming techniques outlined in the Neighborhood Traffic Management Program developed by the City of Richmond. Traffic calming techniques should slow traffic, decrease un-safe driving practices, as well as minimize cut-through traffic. Traffic calming techniques should be used to improve conditions for pedestrians and bicyclists and enhance neighborhood character. Traffic calming elements, when necessary, should be well designed so that they provide for an aesthetic

contribution to the urban character of the neighborhoods in which they are placed.

## Traffic Circles

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### Street Traffic Calming

***RVA300 Objective 8.1 – Equitable Transportation (Pg.141) Implement traffic-calming measures to slow down traffic.***

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### Onsite Traffic Calming

Traffic calming techniques should slow traffic, decrease un-safe driving practices, as well as minimize cut-through traffic. Traffic calming techniques should be used to improve conditions for pedestrians and bicyclists and enhance neighborhood character.

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### Additional Guidance

The Neighborhood Traffic Management Program developed by the City of Richmond provides guidance on various traffic speed and volume reduction travel demand management practices.

Also see the Right-of-Way Design Manual developed by the Department of Public Works.

## Paving and Surface Materials

### Selection

***RVA300 Objective 9.5 – Streets, Bridges, and Connections (Pg.154) Develop and implement a plan to maintain roadways and also seek to reduce urban heat by investigating pavement options that reflect light.***

***RVA300 Objective 17.3 – Thriving Environment (Pg.196) Encourage lighter-colored surfaces for roads and roofs to reflect sunlight***

The selection of appropriate paving materials should be based upon the following: desired visual image and compatibility with adjacent paving materials, sustainability, performance, durability, maintenance requirements, and cost. Consideration should be given to the coverage of impervious material, the heat impact of paving material, and the potential for stormwater runoff. Landscaping should be used to break up and soften large expanses of impervious paving material.

Impervious material on public property should be minimized to limit stormwater runoff and the urban heat island effect. Preference should be given to pervious pavement materials that allow for stormwater recharge, especially for parking spaces in parking lots (as opposed to travel lanes) and in other minimally used parking areas. Consideration should be given to a pervious pavement technology's maximum weight limit and ability to support vehicles when used in parking areas. Examples of pervious pavement materials include: permeable interlocking concrete pavers, concrete grid pavers, plastic reinforced grid pavers, pervious concrete, turf, turf pavers, and porous asphalt. The use of pervious pavement must include a maintenance plan specifying how the material will be maintained and the entity responsible for

maintenance.

Simpler paving designs are more compatible with diverse building styles and better unify the various design elements found on City streets. The color of brick and concrete pavers should coordinate with building architecture and adjacent streetscape pavements. However, colored concrete is not recommended for sidewalks, as weathering makes it nearly impossible to match when sidewalk repairs are necessary.

Materials that have an uneven surface should be avoided in pedestrian areas. However, historic features, such as existing cobblestone crosswalks, streets, and alleys should be preserved and restored. In some instances an uneven, historic material must be altered or replaced with a uniform surface to allow for accessibility. In these instances, creative solutions should be considered that remove the least amount of historic material as possible, allowing for accessibility while retaining historic character.

## Cobblestone

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## Curb Material

Existing granite curbing and stormwater inlets must be retained. Any new granite curbing should match existing curbs. Curbing should not be painted or striped. Other traffic control measures, such as signage, should be considered instead.

## Accessible Ramps

The number, size, and location of accessible ramps should be examined for potential conflicts with pedestrian and vehicular circulation. Accessible ramps should be located at intersections and should include detectable warning surfaces as required by the Americans with Disabilities Act. Mid-block accessible ramps for ADA compliance are discouraged.

The Urban Design Committee encourages the review of the City Of Richmond Better Streets Manual for projects that include ADA improvements.

## Streetscapes

***RVA300 Objective 4.4 - Complete Neighborhoods (Pg.130) Bury utilities underground along all Great Streets and bury utilities underground where possible on all other streets.***

***RVA300 Objective 8.1 – Equitable Transportation (Pg.141) Improve street furniture, plant shade trees, and install pedestrian-level lights and other streetscape improvements***

***RVA300 Objective 8.3 – Land Use and Transportation (Pg.142) Install amenities (e.g., shelters, benches, parking, maintenance tools, restrooms, bike parking, water fountains with bottle-refill stations) along enhanced transit routes and greenways (see Goal 12).***

***RVA300 Objective 8.3 – Land Use and Transportation (Pg.142) Increase the number of bike racks on sidewalks and/or use the curb to provide on-street bike parking.***

Streetscape can be defined as the space between the buildings on either side of a street that defines the street's character. Streetscapes are the principal link between public and private spaces. It is important that streetscapes are designed to reflect the character of the neighborhood and to offer a safe, comfortable environment for pedestrians. The elements of a streetscape that can be used to create such environments include building facades, landscaping, sidewalks, street paving, street furniture, signs, awnings, street

lighting, and other technologies that can enhance the health of vegetation and reduce the urban heat island effect.

## Pedestrian Design

***RVA300 Objective 4.4 - Complete Neighborhoods (Pg.130)*** Increase Richmond’s walkability along all streets.

***RVA300 Objective 4.4 - Complete Neighborhoods (Pg.130)*** Strengthen the streetscape connections by installing pedestrian infrastructure such as sidewalks, crosswalks, pathway, and trails where such infrastructure is missing.

***RVA300 Objective 8.1 – Equitable Transportation (Pg.141)*** Improve pedestrian experience by increasing and improving sidewalks and improving pedestrian crossings and streetscapes, prioritizing low income areas.

***RVA300 Objective 8.1 – Equitable Transportation (Pg.141)*** Require developers to construct sidewalks and street trees as part of their development projects (see Goal 4), including single-family infill developments in neighborhoods.

***RVA300 Objective 8.1 – Equitable Transportation (Pg.141)*** Construct ADA-compliant sidewalks and street crossing and retrofit existing sidewalks with ADA-compliant ramps, per federal requirements.

Entrances and pedestrian walkways should enhance the streetscape and be defined by appropriate, landscaping. To create attractive streetscapes, service and utility lines should be located underground if possible.

## Historic Streetscapes

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## Street Trees

***RVA300 Objective 17.2 – Thriving Environment (Pg.196)*** Relocate overhead utilities to alleys or bury overhead utilities to accommodate mature canopy street tree planting.

When new street trees are proposed in a location where overhead utilities are present, undergrounding of those utilities is encouraged. If undergrounding of utilities is not feasible, a street tree species should be selected that will not grow to a mature height that will be impacted by the overhead utilities.

## Tree Wells

Soil volumes for tree wells should range from a minimum of 45 cubic feet (CF) for smaller trees with a required 3’ depth, to a minimum of 180 CF for larger trees. Additionally, it is recommended that continuous tree trenches be used whenever possible to provide the most CF of soil. When possible, individual tree wells should be larger than 3’ by 5’ feet in order to provide the adequate amount of CF of soil to support tree development.

Tree grates are not authorized to be used on City property. Tree well surfaces should be permeable and not covered with companion plantings or material other than mulch. The Urban Design Committee will consider hardy ground covers such as grasses where it is determined that the CF of soil available is adequate for companion planting, but should generally be planted in rills or planting strips where trees cannot be grown due to space constraints . Ground covers should be well maintained. Pea gravel is not an appropriate material under street trees. Proposed development located within an area covered by an approved streetscape plan should be consistent with that plan. A listing of City plans with urban design components is provided in Appendix 1.

To promote healthy root development and meet soil volume requirements, planting methods that utilize structural cells, suspended soil, and suspended pavement are encouraged. Oftentimes, street trees do not receive adequate irrigation. The design of new tree wells should incorporate stormwater infrastructure by directing stormwater from the gutter into a tree's root zone through drains or curb cuts. A maintenance plan that specifies the entity responsible for irrigation and upkeep should be provided with all street tree plantings.

## Urban Street Tree Placement

Street tree placement should respect existing building storefronts and signs. Trees at intersections should be planted at least 25 feet away from a corner to allow for adequate line of sight in all directions. Minor street trees should be located a minimum of 25 feet from each other; intermediate street trees should be located a minimum of 30-35 feet from each other; and major street trees should be located a minimum of 40-45 feet from each other. If possible, all street trees should be a minimum of three feet from the back of the curb. The distance between a street tree and a street light will depend on the type of light. Generally, a street tree should be no closer than 10 feet from a streetlight or a utility pole.

## Tree Selection

Street tree species should be selected to help address climate change and for performance in urban situations. For example, the root structure should be conducive to urban conditions. The height of the tree at maturity should respect any overhead utility lines. The tree's branching tendency and leaf size should be considered. Tree species that drop berries or fruit or have thorns are generally not recommended. A listing of recommended street trees for this region is provided in Appendix 2. To create a uniform tree-lined street, generally no more than two species of street tree should be used along a single block face of a roadway. A different tree species may be used to highlight intersections, where appropriate. If two tree species are selected, they should uniformly alternate along the street.

## Other Streetscape Plantings

Large street trees are the main priority for street plantings in the City of Richmond, however other plantings such as ground covers and small shrubs and bushes may be used within green infrastructure, tree lawns, and above ground planters. Plantings can also be located along portions of the sidewalk that with planting strips that are too small to accommodate a street tree. A Maintenance Plan that specifies the entity responsible for irrigation and upkeep should be provided with all streetscape plantings. Low-maintenance plantings are preferred.

## Native Trees

Generally, native tree species should be considered where they will have ample room, less exposure to road salts, and where there may be less likelihood of soil compaction. They are often very well-suited to parks, playgrounds, schools, libraries, and other open areas where they can host pollinator insects and other small species.

Non-invasive, non-native species that may be more tolerant of harsh urban settings may be used where appropriate. The use of native species within the City is determined on a site-by-site basis, as site conditions vary. New tree wells should be constructed to accommodate root growth and promote healthy trees whenever possible. See Appendix 2 for the City of Richmond's approved planting list.

## Alleys

**RVA300 Objective 9.3 – Streets, Bridges, and Connections (Pg.154)** Increase the miles of alleyways and improve existing alleyways to manage circulation. Maintain and improve existing alleyways. Create new alleyways. Expand the green alleyway program.

**RVA300 Objective 16.4 – Thriving Environment (Pg.191)** Develop guidelines for use of porous paving materials for alley re-paving projects.

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### Proposed Alleys

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### Existing Alleys

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## Public Ways

**RVA300 – Greenways (Pg.100)** Richmond 300 identifies a network of greenways or shared-use paths. A greenway is a universally accessible paved path that is a minimum of 8-feet wide and intended for non-vehicle users.

**RVA300 Objective 4.3 – Complete Neighborhoods (Pg.129)** Increase neighborhood access to, and through, a well-designed network of open spaces.

**RVA300 Objective 8.2 – Land Use and Transportation (Pg.142)** Develop greenways throughout the city connecting Nodes, Priority Neighborhoods, and adjacent localities; focus efforts specifically in South Richmond and including, but not limited to, the following greenways: Ashland to Petersburg, James River Branch, Kanawha Canal, Manchester Canal, and South Bank of the James River (see Future Connections Map for the network of greenways).

### Pedestrian Design

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### Safety through Design (CPTED)

**RVA300 Objective 17.1 – Thriving Environment (Pg.194)** Rely on principles of crime prevention through environmental design rather than police presence to ensure park safety.

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### Materials and Sustainability

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## Additional Requirements

The Urban Design Committee encourages the review of the City Of Richmond Better Streets Manual and the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide for guidance on specific roadway and bikeway design.

[City of Richmond Better Streets Manual: Better Streets City of Richmond](#)

[NACTO Urban Design Guide: Urban Bikeway Design Guide](#)

## Additional Requirements

The Urban Design Committee encourages the review of the City Of Richmond Better Streets Manual and the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide for guidance on specific roadway and bikeway design.

[City of Richmond Better Streets Manual: Better Streets City of Richmond](#)

[NACTO Urban Design Guide: Urban Bikeway Design Guide](#)

# Transportation

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## Multimodal Transportation

***RVA300 Objective 1.4 – Complete Neighborhoods (Pg. 112)*** Implement transportation strategies that increase access among residential areas, Nodes, Priority Neighborhoods, and corridors.

***RVA300 Objective 8.3 – Land Use and Transportation (Pg.142)*** Develop greenways throughout the city connecting Nodes, Priority Neighborhoods, and adjacent localities; focus efforts specifically in South Richmond and including, but not limited to, the following greenways: Ashland to Petersburg, James River Branch, Kanawha Canal, Manchester Canal, and South Bank of the James River (see Future Connections Map for the network of greenways).

Two of the major objectives stated in the City of Richmond's Master Plan are to increase street-level pedestrian activity while safely and efficiently moving people and goods into and out of the City, and to promote a multimodal transportation system. In order to have a safe and efficient multimodal transportation network, it is integral to design with all modes of transportation in mind. These modes include walking, biking, public transit, as well as motor vehicles. It is the priority of the UDC to support all modes of transportation, giving deference to pedestrians and vulnerable transportation users. For projects involving elements of transportation, both public transit and non-motorized transportation (walking, biking, etc.) should be considered in the design and planning of all projects.

### Bike Routes

***RVA300 - On-Street Bicycle Facilities (Pg.100)*** Richmond 300 does not specify the exact type of On-Street Bicycle Facility (i.e., buffered bike lane, protected bike-lane, cycle track, bike/walk boulevard, etc.) but rather by showing these lines on the Future Connections Map, this Plan is stating that some type of bike infrastructure should be included on this road. This Plan does not consider a sharrow as an adequate form of on-street bicycle infrastructure.

***RVA300 Objective 8.2 – Land Use and Transportation (Pg.142)*** Expand, improve, and maintain on-street bike networks as shown in the Future Connections Map, which amends the networks proposed in the Bike Master Plan and in the Pulse Corridor Plan; prioritize the creation of separated, buffered bike lanes.

In cases where right-of-way is being obtained by the city and a new roadway is being constructed, bikeways should be considered on a case-by-case basis in coordination with the Department of Public Works. Appropriate signage should demarcate designated bikeways and delineate the bikeways from lanes of automobile traffic. Roadways with bike routes should be enhanced with street trees or appropriate landscaping.

### Pedestrian Facilities

All transportation projects should have adequate provisions to address the needs of the pedestrian in a safe and efficient manner. Streetscape elements, such as street trees, street lighting, and seating should be used to encourage pedestrian activity.

Striped crosswalks, pedestrian crosswalk signals, and other improvements that enhance safety should be installed as a standard amenity at all signalized intersections.

### GRTC Transit Stops

***RVA300 Objective 8.4 – Land use and Transportation (Pg.143)*** Improve and maintain priority transit stops with amenities such as shelters, benches, trash cans, and bike parking, focusing first on improving stops in Priority Neighborhoods.

A comfortable, safe, and quality environment should be created at transit stops. The elimination of transit stops without replacement should be discouraged, unless addressing frequency. Standard bus shelters and other bus stop furniture that have been approved by the UDC, the City Planning Commission, and GRTC should be used at GRTC transit stops with high ridership and must be installed in a way that doesn't obstruct the public right-of-way or accessibility. Benches installed at transit stops should have arm rests in the middle of the bench for the comfort of riders and to discourage its use for activities other than a short-term wait for the bus.

### **E-Bikes, Scooters, Rideshare, Other Technologies**

***RVA300 Objective 8.2 – Land Use and Transportation (Pg.142)*** Expand the users of bike lanes to include other non-vehicle users, such as scooters and electric bicycles.

***RVA300 Objective 8.2 – Land Use and Transportation (Pg.142)*** Expand the bike sharing program to include more stations in a larger footprint adjacent to high-priority transit stops and other destinations (e.g., museums, parks, shopping districts).

***RVA300 Objective 10.2 – Emerging Transportation Technology (Pg.157)*** Prioritize improvements to public transit, bike, and pedestrian infrastructure over the accommodation of Autonomous Vehicles.

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# Site Design

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## General Site Planning

**RVA300 Objective 4.3 – Complete Neighborhoods (Pg.129)** Integrate natural features, history, culture, and art to enhance public open spaces throughout the city.

**RVA300 Objective 4.3 – Complete Neighborhoods (Pg.130)** Reserve appropriate riverfront and canal-facing sites for public amenities and river-related development such as boating services, picnics, etc.

### Land Use

**RVA300 Objective 9.5 – Streets, Bridges, and Connections (Pg.155)** Discourage the creation of new surface parking lots along pedestrian-oriented and transit accessible corridors.

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### Site Features

The site should respond to its users through its design and by providing an appropriate array of amenities to serve those users. Circulation within the site should be geared toward pedestrian movements, not vehicular.

Connectivity from the site to adjacent areas should be considered during the design phase and include accommodations for non-motorized means of transit and other micro-modal transportation, such as bicycle parking, bike racks, showers, restrooms, and air pumps.

The use of materials and features that increase sustainability, improve air and water quality, promote energy efficiency, and reduce the heat island effect are encouraged. Public facilities should strive to capture as much stormwater on site as feasibly possible through the implementation of stormwater management practices. Practices such as the use of green roofs, bioretention areas, permeable pavement and pavers, and planter beds are encouraged. Conservation landscaping with an emphasis on a diverse palette of plant species is encouraged. New public facilities should be designed in a way that does not disturb existing, healthy trees that may exist on-site.

Facilities required for the ongoing operation of the building, such as loading docks, maintenance sheds, HVAC equipment, and parking areas should be located to the rear of the site and screened from view.

The provision of plazas adjacent to buildings serving the public is encouraged. The design of such plazas should avoid large changes in grade from the street. Plazas should provide a pleasant transitional environment for pedestrians from the street to the building(s) it serves. Public plazas should use landscaping, public art, and historic preservation to create inviting spaces. Adequate seating, lighting and trash receptacles should also be provided in the design of plazas. The incorporation of Low Impact Design (LID) or sustainable design is highly encouraged.

## Off-Street Parking

Well-designed and appropriately located parking resources are a critical element of the City's transportation system.

## Location

Parking should be relegated to remote areas of the site so that the orientation of buildings can be given a direct connection to the public right-of-way. Off-street parking should be located behind a building and to the rear of the property or within the building. On-street, curb parking should be retained. However, removal may be appropriate when other curbside management solutions are proposed in place of parking such as bike lanes, transit stops, etc.

Parking areas should have adequate signage to safely and efficiently direct traffic movement in and around the parking area.

## Design

All parking spaces should be usable, safely and conveniently arranged, and well-marked. Accessible parking spaces should be provided in large parking areas and be properly marked. The design of parking and internal circulation should give deference to existing historic and natural features located within and around the site. The design of parking areas should also provide for clearly marked pedestrian routes through and around the parking area.

Landscaped islands with well-maintained shade trees or shrubs are encouraged to soften large, paved parking areas and break large expanses of asphalt. The selection of landscaping materials should reflect the hierarchy of the circulation system within the site and context. All parking areas are subject to the landscaping requirements set forth by Article VII, Division 2.1 on the City of Richmond's Zoning Ordinance.

Parking areas and incompatible adjacent uses, such as vacant lots, blank walls and other unattractive streetscape features, should be effectively screened with evergreen landscaping or landscape features.

Security cameras should be installed in new parking areas as a means for deterring crime.

Parking garages adjacent to the public-right-of way should have pedestrian-friendly design and active uses at the street level.

## Onsite Traffic Calming

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## Screening

***RVA300 Objective 9.5 – Streets, Bridges, and Connections (Pg.155) Develop parking lot and parking garage screening standards to safely and beautifully screen unsightly parking facilities from the street.***

Large parking areas should be broken up into smaller areas and screened from the public right-of-way and neighboring properties. Appropriate screening may include landscaping, walls, fences or berms.

## Lighting

Lighting within off street parking areas should be evenly distributed with a light intensity ranging from 0.5 to 1.0 foot candles. Lighting should be focused downward in order to respect adjacent properties and to effectively provide light for the safety of pedestrian and vehicular users. It is important that the entrances and exits to parking areas are well lit.

## Electric Vehicle Charging in Parking Lots

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## Additional Guidance

All new parking areas and lots are subject to the off-street parking improvement requirements and landscaping standards found in Article VII, Division 2.1 of the City of Richmond's Zoning Ordinance.

# Landscaping

## Design

Plantings should be compatible with and relate to surrounding landscapes. Site landscaping should complement and soften new construction and building architecture. Plant materials should create spaces by providing walls and canopies in outdoor areas. Landscaping should not only provide a sense of scale and seasonal interest, but should also be designed to minimize human impact on the environment. Designs that include conservation landscaping, strategically minimize the urban heat island effect, or decrease stormwater runoff are strongly encouraged.

Proposed improvements located within an area covered by an approved streetscape plan should be consistent with that plan. A listing of City plans with urban design components is provided in Appendix 1.

## Species Diversity

***RVA300 Objective 17.7 – Thriving Environment (Pg.204) Increase the prevalence of native plant species and plants for healthy pollinator communities at public facilities and promote such planting on private lands.***

***RVA300 Objective 17.7 – Thriving Environment (Pg.204) Implement the RVA Clean Water strategy to use 80% native plants in new landscaping at public facilities by 2023.***

Landscape plans should include a diverse palette of plant species that include evergreen trees, flowering and shade tree species, shrubs, ground cover, and annual and perennial plantings. Planting a diverse set of street trees will help protect against disease and enhance biodiversity and landscape health. Some streets, such as prominent boulevards, gateway corridors, or ones with historic significance may be better suited for landscape plans that include a limited tree selection, using only a few species to create a specific pattern of planting for visual interest and uniformity. When recreating or replacing historic landscape designs, consideration should be given to climate change, and whether or not species used in historic designs are still suited for today's climate.

Trees for pedestrian comfort should be the predominant plant material in an urban setting and chosen according to the context of the street (i.e. utility lines, architecture, etc.). Plant species should encourage pollinator diversity. Additionally, preference should be given to retaining mature, healthy, non-invasive plant material, especially trees.

The City of Richmond's Arborist should be encouraged to meet with the Urban Design Committee throughout the year to discuss yearly goals and any current arboriculture topics that are of interest and help to the Urban Design Committee. The Urban Design Committee should consult with the City Arborist on projects, specifically on proposed species and how they may impact surrounding biodiversity.

## Plant Selection

Plant materials should be adaptable to existing soils, climatic and lighting conditions, and be disease resistant. Trees that produce suckers are strongly discouraged, as they require constant trimming to maintain their character. Noninvasive plant species are encouraged, particularly local ecotypes. Invasive

plant species, as identified by the Virginia Department of Conservation and Recreation (VA DCR), are prohibited. Listings of native plant species for this region and other Mid-Atlantic States are provided in Appendix 2.

## Maintenance

Maintenance must be considered when selecting landscaping materials. A maintenance agreement and/or plan should be in place for the life of the planting design. If a maintenance plan includes pest and weed control, the Urban Design Committee strongly encourages that only organic, chemical-free treatments be utilized. Synthetic pesticides and herbicides can enter the stormwater system and be dangerous to humans, as well as other mammals and pollinators.

Significant healthy trees should be preserved and maintained, whereas hazardous, dead, or dying trees on City-owned property should be removed and replaced. Trees on public and private property should be appropriately pruned around utility lines, and new trees should not be planted directly above existing, underground utilities. Lower cost, easily replaceable trees should be planted in areas where future undergrounding of utilities is likely but not eminent.

The Urban Design Committee supports the City Planning Commission's Resolution, dated April 2, 1991, which requires the submission of a maintenance analysis for all landscaping within City Capital Projects (see Appendix 3). The Urban Design Committee also supports programs in which citizens or organizations can participate in the maintenance of landscapes on City-owned property. Such programs may include adopt-a-tree, adopt-a-spot, and adopt-a-park.

## Additional Guidance

Additional guidelines are provided in the Broad Street Streetscape Design Guidelines.

## Public Art

***RVA300 Objective 1.3 - Complete Neighborhoods (pg.112)*** Utilize public art and the public realm to create unique features within Nodes and Priority Neighborhoods.

***RVA300 Objective 4.2 - Complete Neighborhoods (pg.128)*** Integrate public art into the built environment to acknowledge Richmond's unique history and neighborhood identity, and engage the creative community, focusing public art efforts in areas that do not have public art today.

***RVA300 Objective 4.2 - Complete Neighborhoods (pg.128)*** Develop public art projects within Nodes and Priority Neighborhoods to elevate the place's unique character through creative placemaking.

***RVA300 Objective 4.2 - Complete Neighborhoods (pg.128)*** Utilize public art projects to preserve the cultural heritage of places, prioritizing areas that are experiencing major changes in demographics and development.

***RVA300 Objective 4.2 - Complete Neighborhoods (pg.128)*** Link public art with major public facility initiatives (e.g., plazas, buildings, parks, bridges) and expand the definition of public art to include architectural embellishments of buildings, or landscape features.

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## Lighting

***RVA300 Objective 17.8 – Thriving Environment (pg.204) Install hooded light fixtures on public rights-of-way and buildings to reduce light pollution and reduce effect on nocturnal species.***

## Lighting Plan

The goal of the general lighting plan should be to define appropriate light coverage and illumination levels, type and color of lighting, location, fixture style, and the height and angles of lights. A general lighting plan is required for plans of developments, community unit plans, and any comprehensive streetlight project. The lighting plan should differentiate in the scale of lights required for roadway (vehicular) and for walkway (pedestrian) lighting. Light height and spacing is generally determined by the lamp output and the desired average illumination on the roadway and pedestrian walkway. Exterior lighting should avoid light pollution by directing light downward and, in some instances, include caps as part of the design. Proposed lighting improvements located within an area covered by an approved streetscape plan should be consistent with that plan. A listing of City plans with urban design components is provided in Appendix 1.

## Location

Roadway and pedestrian lighting should illuminate circulation and activity zones and facilitate safe pedestrian and vehicular movement. Appropriate illumination should be provided at points of decision, such as intersections, crossings, bus stops, steps, arrival points and other special features. Building facades, important architectural details, and site features, such as specimen plantings, art work and freestanding signs, may be highlighted by appropriate facility lighting. The selection of lighting fixtures and street trees should be considered in conjunction with one another. The location of street trees may affect the consistency of illumination along the streetscape. The distance between a street tree and a street light will depend on the type of light. Generally, the center of a street tree should be no closer than 10 feet from a streetlight. For pedestrian areas, pedestrian light fixtures should be 10 to 15 feet above the ground. The pedestrian light poles should be placed 40 to 60 feet apart, depending on the desired light level and the photometric characteristics of the light fixture. For vehicular areas, light fixtures should be 20 to 35 feet high, but should not be taller than the adjacent buildings, where possible.

## Illumination

Consistent levels of illumination should be maintained in public areas. Safe and comfortable circulation depends more on the consistency of illumination than on the level or brightness of the lighting. All light sources should be shielded or diffused to reduce glare, spill light, up lighting, and wasted light. Lighting in commercial areas should not spill over onto adjacent residential areas. The color temperature of a light source should not exceed 3000K. High pressure sodium lighting is discouraged.

## Fixture Design

Building, site, and parking lot light fixtures should be coordinated and compatible with the architecture of the building. The design of streetlights should reinforce the character of the street. Simpler fixture styles are recommended to be compatible with the many different architectural styles found on City streets. Where compatible, City standard poles, luminaries and accessories should be used for public spaces. New light fixtures may be affixed to existing metal or concrete utility poles, for cost effectiveness and to reduce clutter on the sidewalk. Lighting fixtures should be consistent with existing fixtures in the surrounding area. Fixture consistency shall be determined by a minimum of a three block radial survey of the area surrounding the proposed project for smaller projects. For larger lighting projects, a general lighting plan shall be required with documentation of the lighting fixture design in areas surrounding the project. The finish on street lights and site furnishings should coordinate. The replacement of cobra-head light fixtures is encouraged by the UDC. When not replaced, the older cobra-head light fixtures and metal poles may be painted to match the site furnishings. The City standard color is DuPont Hunter Green PFG-509-S8.

When possible, there should be demonstrated consideration for LED and other energy efficient lighting.

## Additional Requirements

Proposed lighting improvements located within an area covered by an approved streetscape or lighting plan should be consistent with that plan. All outdoor lighting is subject to Section VI, Division 8 of the City of Richmond's Zoning Ordinance. A list of recommendations for using LED lighting is provided in Appendix 4.

## Site Furnishings

### Design

Site furnishings, such as benches and trash receptacles, should be appropriately styled and scaled to complement building architecture and to reinforce the character of the streetscape. Streetscape furnishings and streetlights should coordinate with each other in style, color and finish. Simpler forms are recommended to be compatible with the many different architectural styles found on City streets. The design of the furnishing should support its function. For example, a trash receptacle should be large enough and be easy to dump. Benches should be designed for comfortable seating and not for sleeping. Decorative streetscape planters are not recommended, unless they will have plantings in them year-round and be well maintained.

Street furnishing should be consistent with existing street furnishing in the surrounding area. Street furnishing consistency shall be determined by a minimum of a three block radial survey of the area surrounding the proposed project. Proposed site furnishings located within an area covered by an approved streetscape plan should be consistent with that plan. A listing of adopted City plans with urban design components is provided in Appendix 1.

### Placement

Site furnishings should be conveniently located for the pedestrian, but should not obstruct pedestrian circulation. Furnishings should be located where people congregate, such as at bus stops, in front of major attractions, and in parks and plazas. The placement of furnishings should not create visual clutter on the streetscape. Furnishings may be grouped together, where appropriate. However, trash receptacles should be placed in the vicinity of bench groupings, but not directly adjacent, because of wasps and other insects in summer months. Inappropriate existing furnishings should be removed, prior to locating new furnishings. Site furnishings can also be integrated into a site design as part of the proposed architecture, such as walls and steps used as seating.

### Durability and Maintenance

Site furnishings should be durable, both in construction and finish, and be easy to maintain and to install. Site furnishings should have vandal-resistant features. Replacement parts or components should be readily available and easily installed. Finish colors should be easily matched.

## Walls, Fencing, and Screening

***RVA300 Objective 4.1 – Complete Neighborhoods (Pg.126) Require the screening of utilities, communication, transformers, and other service connections to buildings.***

### Design

The design of walls or fences and screening should be consistent with the design, materials, colors and textures of the adjacent buildings. Rooftop mechanical equipment should be screened by the building's roof line, with walls constructed of matching wall or roof material, or painted to match the roof color.

All trash receptacles, dumpsters, fuel tanks and significant building mechanical equipment on the exterior of a building should be screened.

### Material and Color

When considering the design of new fences, materials, colors and finishes should be chosen that complement the principal building. Masonry walls with iron gates are acceptable screening materials. Maintenance requirements should be considered when selecting fencing or screening materials. The Urban Design Committee strongly discourages the use of vinyl fencing materials.

### Landscaping

Evergreen tree and shrub plantings should be located adjacent to walls and fences to strengthen their screening ability. Vertical gardens and green walls should be considered when possible. Evergreen trees and shrubs should also be planted adjacent to large screening enclosures to improve their appearance.

### Chain Link Fencing

Chain link fencing is not an appropriate fencing material. It is the policy of the City Zoning Administration not to accept chain link with blinds as an appropriate screening material. The blinds are not durable and often disappear. If chain link is required, however, for safety or security purposes, the entire structure (fabric, posts and railings) should be coated with a dark colored vinyl, preferably black, and supplemented with sufficient evergreen landscaping. Barbed wire and razor wire are not appropriate fencing materials in most situations.

### Screening between Incompatible Uses

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## Signs

***RVA300 Objective 1.3 – Complete Neighborhoods (Pg.112) Develop marketing plans, including signage, graphics, and branding, to differentiate the Nodes and Priority Neighborhoods from one another and retain, create, and attract/retain businesses***

### Placement and Size

A sign should fit the architecture of the building. A sign should not be too large for a building or overwhelm its architecture. Signs should not obstruct architectural elements and details that define a building's design. Signs should be placed so that they are sensitive to the signs of adjacent businesses. Freestanding signs should also relate to the architecture of the building. The sign's base may be constructed of like building materials. Additional traffic signs should be coordinated with existing or new poles to avoid additional clutter.

### Message

A sign's message should be easy to read and direct. It should not contain too much information. The

message should clearly relate to the use of the building. The use of "sponsor" advertising should be discouraged. This type of advertising has an assembly line appearance, sends a confusing message, and does not promote individual store identity.

## Lettering

Generally, sign lettering should be 4 to 14 inches high and should be proportional to the area in which it will be displayed. One inch should be added to the lettering height for each additional 50 feet between the sign and the viewer. The lettering style should be easy to read and should reflect the image of the business it represents.

## Color

Sign colors should relate to and complement the materials and color scheme of the building, including accent highlights and trim colors. The stronger the color contrast between the lettering and the background, the easier it is to read the sign. For example, light colored lettering will read better against a dark colored background.

## Illumination

Internally illuminated signs are not appropriate in or adjacent to residential areas. Internally illuminated signs should have light lettering and dark, opaque backgrounds for improved readability and minimal glare. For externally illuminated signs, the spotlights should be shielded to minimize glare. All lighting and electrical parts should be concealed from view. Signs should not contain elements that could be visually distracting. Additionally, electronic signage and its display will be dictated by current zoning.

## Landscaping

Freestanding signs should be landscaped with appropriate deciduous and evergreen shrubs, ground cover planting, annuals and/or perennials.

## Additional Requirements

All signs are subject to the applicable sign requirements set forth in Article V of the City of Richmond's Zoning Ordinance. For signs that encroach into the public right-of-way, additional guidance may be found in the "Encroachment" chapter of this document.

# Building Design

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## Location

**RVA 300 Objective 1.3 – Complete Neighborhoods (Pg.112)** Co-locate, consolidate, and modernize community-serving public facilities, and locate them in or near Nodes and Priority Neighborhoods.

**RVA 300 Objective 2.1 – Complete Neighborhoods (Pg.116)** Align new facilities and improve existing City owned facilities with the Future Land Use Plan.

**RVA 300 Objective 3.1 – Complete Neighborhoods (Pg.120)** Preserve culturally, historically, and architecturally significant buildings, sites, structures, neighborhoods, cemeteries, and landscapes that contribute to Richmond's authenticity.

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## Building Placement

### Building Orientation

A building should be oriented toward the primary street that borders the site. Its facade should face the roadway and not appear to turn its back on the public right-of-way. A building sited on a corner lot should face the larger or more traveled of the two streets. It may be appropriate for a building's design to respect more than one street frontage.

A building's entrance should be easily recognizable. The main entrance into a public building should be at ground level, which facilitates public access and makes it easier to accommodate all users.

Energy efficiency should be considered when deciding building location and orientation. The use of environmental studies, such as solar analyses, may yield opportunities to leverage existing environmental conditions for more efficient design.

### Building Setback

A new building should have the same or similar setback as existing buildings on the same street. When a design includes balconies, awnings, or door swings that extend beyond the building's setback, the design should minimize or avoid elements that encroach into the public right-of-way. There will be situations, however, where a different setback would be appropriate for the type of building and the desired environment. Examples would include larger public buildings, such as schools and recreation centers, located within urban residential areas. The Urban Design Committee encourages setbacks that allow for the development of usable public space and streetscape enhancing landscaping.

## Architecture

***RVA300 Objective 1.4 – Complete Neighborhoods (Pg.112)*** Implement urban design and architecture strategies that maintain and enhance the unique character of Richmond’s residential districts.

***RVA300 Objective 4.1 – Complete Neighborhoods (Pg.126)*** Allow and encourage a variety of architectural styles.

***RVA300 Objective 4.1 – Complete Neighborhoods (Pg.126)*** On development sites that encompass most of a city block or block frontage, require multiple buildings and/or façade articulation to increase visual interest, require massing that is responsive to the human-scale, and consider pedestrian through-block connections through existing super blocks to establish a street grid.

***RVA300 Objective 4.1 – Complete Neighborhoods (Pg.126)*** Require sites with frontage on Great Streets to meet special design guidelines, such as burying power lines and the six design elements outlined in the Pulse Corridor Plan, to ensure the buildings enhance and support the Great Street.

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## Facade Design

***RVA300 Objective 4.1 – Complete Neighborhoods (Pg.126)*** Require adequate distribution of windows and architectural features in order to create visual interest.

***RVA300 Objective 4.1 – Complete Neighborhoods (Pg.126)*** Require the podiums of tall buildings to reflect the human-scale, with design elements and active uses on the ground level.

***RVA300 Objective 4.1 – Complete Neighborhoods (Pg.126)*** Increase building permeability by requiring new buildings to have functioning entrances from the sidewalk and restricting blank walls at ground level.

A building should have an easily recognizable, inviting and accessible entrance on its facade. The use of special exterior paving, lighting, and landscaping is encouraged to highlight a building's entrance.

A building's facade at ground-level is paramount in establishing the vitality of a commercial district. Ground-level design should be comfortable to the pedestrian. For example, there should be appropriate architectural detailing and windows at eye-level. Display windows are encouraged to provide interest along the commercial streetscape.

Large expanses of blank, undifferentiated wall are not appropriate building elevations, especially at the street level. Windows, projecting cornices, and architectural details, such as decorative masonry bands in an accent color, may be used to break up flat building planes. Service areas should not be located along the front elevation of the building.

## Building Height, Proportion and Massing

***RVA300 Objective 4.1 – Complete Neighborhoods (Pg.126)*** Encourage design approaches that support creative solutions for transitions among varying intensities of building types and land uses.

***RVA300 Objective 4.1 – Complete Neighborhoods (Pg.126)*** Encourage roof lines and upper levels of tall buildings to be articulated with a distinguishable design.

***RVA300 Objective 4.1 – Complete Neighborhoods (Pg.126)*** Encourage building placement and massing design that reduces the heat island effect by varying building heights in neighborhoods to increase airflow.

A building's height, width, and relationship to adjacent structures should appear balanced and be compatible with neighboring structures.

Public buildings, such as hospitals, schools, libraries and community centers, may require larger proportions than adjacent buildings, just as corner buildings may be taller than adjacent buildings to define a primary entrance point to the block. To minimize the visual impact on a neighborhood with smaller-scaled structures, larger-scaled buildings should be designed sensitively to not overpower smaller adjacent structures. Techniques may include stepping back the building as it increases in height, varying the surface

planes of the building, and breaking up the roof line to create smaller components. The width and type of street may also impact the considerations for building mass and step-backs.

A building's roof form should relate to neighboring buildings. There may be instances, however, when this is not necessary. This may be the case if there is no general design theme in the neighborhood or if neighboring buildings have been significantly or inappropriately altered over time. A building's roof form should be proportional to the building and its facade. A corner building may use its roof form to define an entry point location to the block.

Larger-scaled buildings should have varied roof forms and roof lines in order to minimize monolithic visual impacts. Roof materials and colors should be compatible with the selected building materials and colors. Roof designs and lighter colored materials that address the reduction of heat island impact and also help manage stormwater are strongly encouraged. LEED may provide helpful resources and suggestions.

## Zoning Requirements

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## Architectural Details

Architectural details may include cornices, roof overhangs, lintels, sills, molding, brick patterns, shutters, entrance decoration, chimneys and any other decorative indentations, projections or additions. These details add materials, textures and colors to the architecture, create shadows or highlight building focal points, and divide or define structural masses. Detailing is encouraged to be designed, implemented, and maintained at a human scale.

Building textures and their combinations should add continuity and not conflict or detract from each other. Textures should be appropriate for the size, proportion and architectural style of the building and its surroundings. Reflectivity, durability and color of the texture should be considered.

The number, size, style and type of windows should be appropriate for the architecture of the building and appear intentional in terms of rhythm, patterns, and ratio of walls to windows. Window design can also be influenced by existing fenestration patterns and window design of the surrounding architecture. If shutters are proposed, they should fit the window opening. The color of the window glass and its reflective quality should be carefully considered for its overall effect on the design. Highly reflective glass is not appropriate at street level. Clear glass is encouraged for its tendency to increase visual connectivity from the inside of a building to the outside and vice versa.

Window openings should not be filled in with brick because of the difficulties in matching brick and mortar colors. If the filling of openings is unavoidable, the filled surface should be recessed from the original wall surface.

Energy efficiency should be considered in window design. The UDC may request comment from the Commission of Architectural Review when reviewing projects that contain older architectural elements such as windows.

Bird safe glass should be considered when a building is greater than 45 feet tall or is located next to a park, streetscape, or highly vegetated or landscaped area. This can be done by reducing the reflectivity and amount of glazing used on a building. Glass that reflects the surrounding landscape or sky can increase the chances of collision for migrating birds.

## Building Materials Selection

***RVA300 Objective 4.1 – Complete Neighborhoods (Pg.126)*** Ensure that building materials are durable, sustainable, and create a lasting addition to the built environment, and provide maximum adaptability for environmental change, change of use, and efficiency.

***RVA300 Objective 17.3 – Thriving Environment (Pg.196)*** Identify opportunities for green roofs on public facilities, and encourage green roofs in private development.

***RVA300 Objective 17.7 – Thriving Environment (Pg.204)*** Encourage use of bird-safe glass and other building materials and features that protect and enhance natural ecologies where appropriate.

New building materials should be compatible with and complement the vernacular of the neighborhood. New materials should be appropriate for the size and architectural style of the building. For older buildings, inappropriate building materials or inferior materials that have been added over time and detract rather than add to the character of the building should be removed. For significant older buildings, original building elements, materials, and features should be retained and repaired, as feasible. Building materials and elements from an earlier time that are not appropriate for the architecture of the building should not be added to create a false historical appearance. New construction that features architectural elements that reference the past should do so with durable materials.

The UDC may request comment from the Commission of Architectural Review when reviewing projects that consist of older buildings.

## Durability and Maintenance

Building materials should be aesthetically and structurally durable, of high quality, and require little maintenance. Where appropriate, substances that resist graffiti should be applied to building materials to reduce maintenance requirements. Additionally, a life-cycle analysis of all materials may help in determining appropriate applications.

In most cases, synthetic reinforced stucco is not an appropriate exterior building material because of its maintenance requirements and lack of durability. Synthetic reinforced stucco should not be used on the first floor of buildings where it is subject to wear and tear and vandalism. Super-reinforced synthetic stucco, however, may be appropriate for the first eight feet of building above grade.

## On-Site Accessible Ramps & Walks

Where possible, accessible ramps should be located so that they are sensitive to primary building elevations. The design of accessible ramps should relate to building architecture and exterior building materials. A ramp's base and its railings should be of an appropriate material and finish to complement the adjacent building. Unpainted wooden ramps are not acceptable. Landscaping may be planted adjacent to accessible ramps for screening. A preference is given to grade modifications that allow for Accessible access through the building's primary entrance, as opposed to separate ramp facilities.

## Modular Units

The Urban Design Committee does not review modular school buildings. Modular school buildings will be directly reviewed by the City Planning Commission in accordance with City Planning Commission Resolution 2016-76 (CPCR – 2016-76).

All other uses of modular units that will remain stationary beyond two years should be reviewed by the Urban Design Committee as a permanent building.

## Additional Requirements

All accessible ramps must meet Americans with Disabilities Act (ADA) requirements.

UDC encourages the review of the Public Right-of-Way Accessibility Guidelines (PROWAG) for projects that

include ADA improvements.

The City of Richmond's Zoning Ordinance specifies different height, setback, and orientation requirements for buildings in each of the City's Zoning districts.

# Park Design

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## Public Parks

***RVA300 Objective 1.3 – Complete Neighborhoods (Pg.100) Develop new parks at Nodes and Priority Neighborhoods and connect them via greenways to one another.***

Public parks are integral to the quality of life found in any urban landscape. Parks should respond to the environment in which they are located and should be designed in accordance with their intended use. The design of small neighborhood parks will vary from the design of large regional parks. Passive natural parks should have adequate trails and access. Active parks should have adequate facilities (i.e. sports fields, trash receptacles, benches, running paths, etc.).

Successful public parks, both small and large, active or passive, share certain qualities, which include the ability to attract and entertain visitors, access and connectivity to surrounding areas, and safety and comfort. Specific design will vary from park to park, but should respond to all of these general characteristics.

It is important that the design of public parks facilitate programming that furthers placemaking, or the creative patterns of use that leverage physical, cultural, and societal identities to define a place.

## Universal Design

***RVA300 Objective 12.4 – Tourism (Pg.167) Include accessible public restrooms throughout the city, including at City facilities and parks.***

Public park design should incorporate design elements that ensure equal access to all users. Site limitations should be evaluated, and access to all sites and site features should be universal. Accessible ramps and other physical accommodations should be components of the overall design and not a separate feature, protecting the dignity of all users. Access limitations of each site should be evaluated and informed by public engagement during the design phase of projects.

## Design Considerations

***RVA300 Objective 4.3 – Complete Neighborhoods (Pg.130) Encourage the creation of a balance of natural rather than hard landscape in creating and improving parks.***

Certain design considerations should be addressed in any project, regardless of the type of park. Historic elements should be surveyed and preservation should be considered for both facilities and landscapes. Impacts to the natural landscape should be assessed and should generally be minimized when constructing man-made elements. A preference should be given toward materials and construction techniques that improve energy efficiency and water/soil quality. Lighting and landscaping should allow for surveillance and policing activities, but should be designed primarily to accommodate the intended use of the park. On-site signage should be consistent in style and convenient to visitors, but should be inconspicuously integrated into the overall landscape.

## Maintenance

All park projects should include a maintenance plan that addresses all phases of the project, including both landscaping and facilities.

## Additional Guidance

Design recommendations for incorporating accessibility for all users into public spaces are available through MixDesign ([www.mixdesign.online](http://www.mixdesign.online))

Case studies, research, and guidance on park design are available through The Project for Public Spaces ([www.pps.org](http://www.pps.org)).

# Sustainability

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## City Sustainability Guidelines

**RVA 300 Objective 2.1 – Complete Neighborhoods (Pg.116)** Implement green infrastructure measures and other measures outlined in RVA H2O Plan and in the Clean Water Goal of Richmond 300 to improve water quality and reduce stormwater runoff.

**RVA300 Objective 15.2 – Thriving Environment (Pg.186)** . Installation of renewable energy (solar, wind, hydro, geothermal) on City buildings and land (methane-capture at landfill and wastewater treatment plant).

**RVA300 Objective 17.5 – Thriving Environment (Pg.202)** Reduce impervious surfaces.

### Applicability

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### Plan Highlights

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## Green Site Design

**RVA300 Objective 4.1 – Complete Neighborhoods (Pg.126)** Protect and restore natural resources.

**RVA300 Objective 16.1 – Thriving Environment (Pg.190)** . Explore programs to daylight streams and deculvert streams.

**RVA300 Objective 17.4 – Thriving Environment (Pg.198)** Expand the community garden program by developing standards and guidelines for community gardens on public lands to ensure transparency, continuity of use, community benefit, and access to a water source.

The utilization of outdoor space and green elements that support human and environmental health, specifically as it relates to eco roofs, raised courtyards and stormwater management practices including planter beds and bioretention areas, should be used to meet a portion of landscaping requirements.

### Stormwater Management and Low Impact Design

***RVA300 Objective 4.1 – Complete Neighborhoods (Pg.126)*** Encourage development that respects and preserves the natural features of the site through sensitive site design, avoids substantial changes to the topography, and minimizes property damage and environmental degradation resulting from disturbance of natural systems.

***RVA300 Objective 16.4 – Thriving Environment (Pg.191)*** Increase green stormwater infrastructure throughout the city, prioritizing areas with a high heat vulnerability index score.

***RVA300 Objective 16.4 – Thriving Environment (Pg.191)*** Identify opportunities for green infrastructure on public lands and rights-of-way; explore creating green infrastructure guidelines within the Better Streets manual.

Low Impact Development (LID) is an innovative stormwater management approach with a basic principle that is modeled after nature by managing rainfall at the source and using uniformly distributed decentralized micro-scale controls. LID's goal is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to its source. Almost all components of the urban environment have the potential to serve as part of the storm water management process in a Low Impact Development. This includes not only open space, but also rooftops, streetscapes, parking lots, sidewalks, and medians.

### Urban Heat

***RVA300 Objective 17.3 – Thriving Environment (Pg.196)*** Reduce urban heat, prioritizing areas with a high heat vulnerability index rating, as shown in Figure 47.

***RVA300 Objective 17.3 – Thriving Environment (Pg.196)*** Encourage lighter-colored surfaces for roads and roofs to reflect sunlight

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### Urban Tree Canopy

***RVA300 Objective 17.2 – Thriving Environment (Pg.196)*** Increase city-wide tree canopy from 42% to 60% (see Figure 46) and seek to achieve a 30% tree canopy in all neighborhoods, prioritizing areas with a high heat vulnerability index rating and low tree canopy coverage.

***RVA300 Objective 17.2 – Thriving Environment (Pg.196)*** Implement RVA Clean Water strategy to increase tree canopy on City property by 5%.

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### Design

Site development should take measures towards conservation of natural resources. Where feasible, developments should also promote impact minimization techniques through alternative stormwater management practices. When rain and snow fall on surfaces like roads or sidewalks, they can pick up pollutants like dirt, nutrients, bacteria, or chemicals, which then flow into our waterways resulting in stormwater pollution. Site design should:

- Locate stormwater facilities outside of streams and wetlands, maintaining natural drainage ways, and preserving riparian buffers;
- Preserve the natural cover on as much of the site as possible;
- Minimize the overall impervious cover and locate impervious areas on less permeable soils;
- Route runoff so that it drains from impervious cover to pervious cover (i.e. downspouts draining to

the yard, not the driveway);

- Use cisterns and rain barrels to increase the travel time of water off of the site;
- Utilize soil management/enhancement techniques to increase soil absorption;
- Revegetate all cleared and graded areas and consider using “engineered swales” and bioretention areas for conveyance in lieu of curb and gutter where appropriate; and
- Utilize level spreading of flow into natural open space.

## Resilience

***RVA300 Objective 17.6 – Thriving Environment (Pg.202) Bury power lines and locate key energy network assets to enhance grid resilience.***

***RVA300 Objective 17.6 – Thriving Environment (Pg.202) Increase local renewable energy generation.***

***RVA300 Objective 17.6 – Thriving Environment (Pg.202) Evaluate transportation networks to identify emergency routes and promote redundancy.***

***RVA300 Objective 17.6 – Thriving Environment (Pg.202) Develop micro-grids with on-site energy storage for critical public facilities.***

***RVA300 Objective 17.6 – Thriving Environment (Pg.202) Support increased usage of energy storage technology, including small-scale storage systems in residential, commercial, and industrial buildings, vehicle-to-grid infrastructure, and larger stand-alone storage facilities where appropriate.***

***RVA300 Objective 17.6 – Thriving Environment (Pg.202) Identify community facilities to serve as resilience hubs and update systems to be more resilient.***

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## Additional Guidance

The Master Plan Environmental Element and Chapter 6 of the City's Master Plan (Natural Resources and the Environment) provide guidance on the preservation and enhancement of the City's natural environment. Projects located within Chesapeake Bay Preservation Areas must comply with the requirements of the City's Chesapeake Bay Preservation Program. Additional guidance is provided in the Chesapeake Bay Preservation Program's Public Information Manual.

All new parking areas and lots are subject to the off-street parking improvement requirements and landscaping standards found in Article VII, Division 2.1 of the City of Richmond's Zoning Ordinance (Section 114 of the Richmond City Code).

# Encroachments

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## Telecommunication Devices

Whenever possible, new telecommunication devices should be located on existing infrastructure. Telecommunication devices that can be co-located on existing towers are encouraged. Though new poles for telecommunication devices are discouraged, new poles located in the public right-of-way should not be installed in front of doorways or residential dwellings. All telecommunication towers are subject to Article VI Division 11 of the City of Richmond's Zoning Ordinance.

## Signs

Signs encroaching into the public right-of-way should be compatible in scale, style, and composition with the building or storefront design as a whole. If a sign projects more than four inches into the public right-of-way, it must allow for a minimum clearance of eight feet above grade.

### Additional Requirements

For additional guidance, see Community Character Section.

All signs are subject to the applicable sign requirements set forth in Article V of the City of Richmond's Zoning Ordinance.

## Lighting

Building-mounted light fixtures should not extend more than eighteen inches into the public right-of-way. If a fixture projects more than four inches, it must allow for a minimum clearance of eight feet above grade. Light fixtures should be shielded to prevent glare for pedestrians, motorists, adjacent businesses, residents, or tenants. Projected light or logos from canopies should be limited to shine only directly under the canopy or marquee. Moving, blinking, or strobe lights are discouraged for any light fixture encroaching into the public right-of-way. The uplighting of trees is supported by the UDC in cases where it is respectful of the context. Lighting in tree wells should be modest in scale and not ascend beyond the crown of the tree.

### Additional Requirements

Proposed lighting improvements located within an area covered by an approved streetscape plan should be consistent with that plan. All outdoor lighting is subject to Section VI, Division 8 of the City of Richmond's Zoning ordinance. A list of recommendations for using LED lighting is provided in Appendix 4.

For additional guidance, see Community Character Section.

## Door Swings

The Urban Design Committee does not support the encroachment of door swings into the public right-of-way. Recessed entries are encouraged. When a recessed entry is not feasible, the encroachment of the door

swing into the public right-of-way should be minimized as much as possible.

## Sky-Walks

The Urban Design Committee does not support the use of sky-walks connecting buildings that span over the right-of-way. If they are used, the sky-walk should span no more than the width of the right-of-way. Sky-walks should be level, with little to no incline. The materials used for the construction of sky-walks should not be opaque or made of reflective material, so as to minimize the visual obstruction across the public right-of-way.

## Outdoor Dining Encroachments

Outdoor dining facilities can add life and vibrancy to the streetscape. However, they can also obstruct the public right-of-way and become a safety hazard. Outdoor dining facilities that encroach into the public right-of-way should only be considered when there is adequate sidewalk width to accommodate both the dining facilities and the pedestrian. Outdoor dining facilities should be maintained at street level; any change in grade between the sidewalk and the outdoor dining facility should be minimized. Outdoor dining facilities must be clearly delineated by vertical elements or fences when alcohol is served, in order to comply with the State of Virginia regulations for serving alcoholic beverages and to prevent the restaurants from spreading beyond their designated areas. Any barriers around the outdoor dining facilities should not be entirely solid or opaque.

The City currently has three types of outdoor dining categories: Sidewalk Café, Outdoor Dining Encroachment, and Streatery. A barrier must surround any outdoor dining space when alcohol is served, this applies to all types of outdoor dining. Furthermore, barrier access points must be controlled by the restaurant establishment. It is highly recommended that the outdoor dining furnishings should reflect the character of the restaurant while respecting the spirit of the street design.

### Sidewalk Café

A Sidewalk Café is any group of tables, chairs, or other seating fixtures and all related appurtenances maintained within the public sidewalk and intended for the purpose of consumption of food or beverage by patrons, when such is located adjacent to a food or beverage service establishment having the same operator. A sidewalk café shall not be considered an "encroachment" as defined in Article I of Chapter 90 of the City of Richmond Code of Ordinance so long as all outdoor facilities related thereto are temporary in nature, are not permanently affixed so as to extend below, on or above the sidewalk, involve no penetration of the sidewalk surface, are not attached to any building and are readily removable without damage to the surface of the sidewalk.

Sidewalk Cafés have their own guidelines, City Of Richmond's Sidewalk Design Guidelines, adopted in 2012, which speak to their design and operation.

### Outdoor Dining Encroachment

An Outdoor Dining Encroachment functions similar to a Sidewalk Café but does not need to be removed outside of eating establishment hours, thus encroaching into the public right-of-way in perpetuity. This type of outdoor dining category is reviewed as an encroachment where the UDC makes an aesthetic recommendation to DPW.

### Streateries

A Streatery is a private, on-street, outdoor dining establishment that occupies a portion of a parking lane that is closed to motor vehicle parking. Streateries are an extension of a nearby restaurant or service and are subject to all the terms and conditions of the nearby restaurant's food service permits and alcohol licenses. They should be connected visually to the associated restaurant and designed for use by the restaurant's patrons. The City of Richmond's Urban Design Committee encourages the use of streateries as a unique way to add vibrancy and activity to the streetscape. All streatery applications must be review by the Department of Public Works, the Department of Public Utilities, and the Department of Planning and Development Review.

Streateries have their own guidelines, which are outlines in the City of Richmond Parklet Design Guidelines.

## Parklets

***RVA300 Objective 16.4 – Thriving Environment (Pg.194) Promote the Parklet Program, encourage the development of parklets throughout the City.***

Parklets are small platforms that take the place of two or more on-street parking spaces, converting curbside road space into public gathering space. Typically, parklets are sponsored by the business or organization that it is adjacent to due to the extent of maintenance that is required. The City of Richmond Urban Design Committee encourages the use of parklets as a unique way to incorporate public gathering spaces into existing, built-out urban settings throughout the city. Individuals interested in installing a parklet should refer to the City of Richmond's Parklet Design Guidelines, which outline the approval process and design options. All parklets must be review by the Department of Public Works, the Department of Public Utilities, and the Department of Planning and Development Review.

## Newspaper Boxes

One or more newspaper vending machines can create an eyesore or visual clutter in the streetscape. Therefore, newspaper vending machines should be consolidated into newspaper enclosures or racks.

## Planters

All planters must be removable for periodic maintenance and include a maintenance plan. Planters should be constructed of durable materials and not obstruct the public right-of-way. Treated wood and plastic materials are discouraged.

## Security Gates

Roll-down security gates are strongly discouraged. Security gates can have a negative impact on the character of urban shopping areas. If security gates must be used they should be located in the interior of the window in order to avert encroachments into the public right-of-way. The UDC supports the October 2, 1995 resolution of the City Planning Commission regarding a policy statement for security gates and door encroachments. This resolution can be found in Appendix 5.

## Bollards

Bollards in the public right-of-way and in tree wells are discouraged. If bollards must be used, they should be constructed of durable materials and should complement the architectural character found in the adjacent buildings without detracting from the harmony of other streetscape elements, such as benches, street lights, and trash receptacles. Bollards should not be placed in the travel way of on-street bike lanes. Shared-use paths or greenways may implement bollards as a tool if there is ambiguity between motor vehicle travel-way and trail crossing. Flexposts, rather than permanent bollards, should be used to protect bike lanes from vehicular traffic.

## Awnings & Canopies

### Type

Awnings and canopies should respect the shape of the storefront, door or window opening. Generally, fixed or retractable, sloped awnings are the traditional awning type and are appropriate for older buildings.

### Size and Placement

Awnings and canopies should fit within the storefront, door, or window opening. They should complement the scale of the building and should not overwhelm or dominate its facade. The size, type, and placement of awnings and canopies should not interfere with signs or distinctive architectural features and should not damage or obscure existing materials. Mounting hardware should be installed into mortar joints to avoid damaging existing masonry. The bottom of the valance of awnings shall be no less than 7'-0" above grade.

### Material

The recommended material is canvas or vinyl-laminated polyester. The material should be flame retardant and should resist fading. Reflective or plastic-like fabrics are not recommended for traditional buildings or areas.

### Color

Awning color should be coordinated as part of the building's overall color scheme. Buildings with complex color schemes should use subtle hues for awnings so not to overwhelm other details. Simple, unadorned buildings may use brighter colors to highlight the facade. Harsh or gaudy colors that compete for attention and detract from the building's overall image should be avoided.

### Signage

Professionally applied lettering may be added to the valance area of an awning or canopy. Usually 4 to 8 inch high lettering is sufficient. The lettering should be silk-screened, heatcolor transfer or hand-painted. Spray painting is not recommended, as it tends to fade more rapidly, and self-adhesive vinyl is not durable because the adhesive loses its bonding quality over time.

### Illumination

The illumination, up-lighting or backlighting, of awnings and canopies may be supported as long as they are in compliance with Dark Sky design regulations. A lighting plan that includes a rendering and information on the type of light fixtures shall be submitted to the UDC for administrative review.

### Maintenance

The building owner should understand maintenance requirements. Fabric awnings generally last 5 to 7

years, and should be cleaned on a regular basis.

## Additional Requirements

Design regulations are set forth in the Code of the City of Richmond, Chapter 26.1, entitled "Streets, Sidewalks and Public Ways."

Awning and canopy signage is subject to the applicable signage requirements set forth in the City's zoning ordinance.

## Banners

The Urban Design Committee, at the request of the City Administration, is the review agency for all banners proposed to be erected in the public rights-of-way. The purpose of the City's Banner Program is to enhance the visual and aesthetic character of the City.

### Location

Banners will only be allowed in certain commercial areas and only within the City rights-of-way. Banners located on private property are not subject to review by the Urban Design Committee, unless such banners encroach into the public right-of-way. Banners will be allowed on City-owned utility poles, only after it is determined that emergency access, overhead wires, sight lines, traffic signal conflicts, vehicle clearance, etc. will not be a factor. Banners proposed on utility poles are not owned by the City must also be reviewed by the Urban Design Committee if such banners will encroach over the public right-of-way. The Urban Design Committee or its designee must review the proposed banner locations and the number of banners at each location.

### Message and Graphic Content

No personal messages, political messages, or any other form of advertisement will be allowed, with the exception of event banners in use no longer than 30 days. Such event banners may list sponsors. The character and design suitability of geometry, shape, pattern, color, and rhythm must be reviewed by the Urban Design Committee or its designee. Written messages on banners may not exceed 40% of the surface area of the banner. No arrows or other graphic techniques used to provide direction, "trail blazing," or other traffic control measures will be allowed.

### Design

Rectangular banner shapes are preferred. However, other shapes may be considered, if secure mounting can be provided. The minimum width of any single banner panel is 10 inches. The maximum width is 2-1/2 feet. The minimum length of any single banner panel is 3 feet. The maximum length is 10 feet. The maximum area of a single banner is 25 square feet. The maximum total area of all banners on a pole is 50 square feet. No more than two banners are allowed per utility pole. No colors, color combinations, or designs are expressly prohibited. Each proposal will be reviewed on its own merit.

### Materials and Maintenance

No materials are expressly prohibited. However, all banners must have wind relief cuts or feature similar techniques to minimize flapping, waving, and other wind load induced stresses. All banners must be maintained in an acceptable manner, regarding mounting height, security, orientation, plumb, and rigidity. The City shall have the right, at any time, to remove and dispose of any banner that becomes damaged, torn, stained, discolored, faded, or otherwise in such condition that the intent of the Banner Program is not

being served. Each banner installation request must specify both installation and removal dates. No banner may remain in the same location for more than 12 consecutive months.

### Mounting

The lowest point of any banner or mounting hardware must not be less than 12 feet above the ground level. At a minimum, the proposed mounting system must include a double rod bracket securing the proposed banner at the top and bottom. The mounting system must be safe for the public, must be removable from the utility pole with normal hand tools, and must in no way weaken or alter the physical characteristics of the utility pole. The Department of Public Utilities will determine compliance with the mounting criteria.

### Additional Requirements

The regulations for the Banner Display Program, applicable to certain areas of the City, can be found in the Code of the City of Richmond, Section 90-256.

## Overhead Wire & Cable Encroachments

The Urban Design Committee supports the City Planning Commission's Resolution, dated February 6, 1995, which discourages new overhead wire and cable encroachments in the public right-of-way (see Appendix 6.) All new wires and cables should be placed underground, as feasible. The Committee advocates that all existing overhead utility wires and cables should be relocated underground, as feasible, especially in neighborhood business and residential areas. The Committee encourages the development of a plan for a phased network of underground cable-ready infrastructure, which would consist of a series of interconnected hollow tubing which could accommodate existing and future wires and cables.

Implementation of such a plan would minimize the impact of overhead wires and cables on the visual environment, facilitate the placement of existing overhead wires and cables underground, and accommodate future wires and cables in an appropriate manner.

# Recommended Species List

COR APPROVED SPECIES LIST 2020		
	COMMON NAME	BOTANICAL NAME
1	Florida maple	Acer barbatum, Acer floridanum
2	Trident maple	Acer buergeranum
3	Hedge maple	Acer campestre
4	Amur maple	Acer ginnala
5	Paperbark maple	Acer griseum
6	Japanese maple	Acer palmatum
7	*Globe Norway maple	Acer platanoides 'Globosum'
8	*Red maple	Acer rubrum 'Armstrong', 'Bowhall'
9	*Sugar maple	Acer saccharum 'Apollo', 'Newton Sentry'
10	Horsechestnut	Aeculus hippocastanum
11	Alder	Alnus glutinosa
12	Serviceberry	Amelanchier canadensis
13	Riverbirch	Betula nigra
14	European hornbeam	Carpinus betulus
15	American hornbeam	Carpinus caroliniana
16	Pignut hickory	Carya glabra
17	*Pecan, Hardy pecan	Carya illinoensis
18	Mockernut hickory	Carya tomentosa
19	Southern catalpa	Catalpa speciosa
20	Hackberry	Celtis occidentalis
21	Japanese Katsuratree	Cercidiphyllum japonicum
22	Eastern redbud	Cercis canadensis
23	White redbud	Cercis canadensis 'Texas White'
24	Chinese fringetree	Chionanthus retusus
25	White fringetree	Chionanthus virginicus
26	American yellowwood	Cladrastis lutea
27	Pagoda dogwood	Cornus alternifolia
28	Flowering dogwood	Cornus florida
29	Korean dogwood	Cornus kousa
30	Cornelian cherry dogwood	Cornus mas 'Spring Glow'
31	Stellar dogwood	Cornus x rutgerinensis
32	American smoketree	Cotinus obovata
33	Hawthorne	Crataegus
34	Japanese cryptomeria	Cryptomeria japonica
35	Hardy Rubbertree	Eucommia ulmoides
36	American beech	Fagus grandifolia
37	European beech	Fagus sylvatica
38	*Ginkgo	Ginkgo biloba
39	*Columnar Ginkgo	Ginkgo 'Fastigiata', 'Fairmount', 'Princeton Sentry'
40	Thornless honeylocust	Gleditsia triacanthos inermis
41	Mountain gordlinia	Gordlinia grandiflora
42	Loblolly bay	Gordonia lasianthus
43	Kentucky coffee tree	Gymnocladus dioicus
44	Carolina silverbell	Halesia carolina

46	Seven son tree	Heptacodium miconoides
47	American holly	Ilex opaca
48	Yaupan Holly	Ilex vomitoria
49	Foster's holly	Ilex x attenuata 'Forsteri'
50	Nellie Stevens holly	Ilex x 'Nellie R. Stevens'
51	Eastern redcedar	Juniperus virginiana
52	Goldenrain tree	Koelreuteria paniculata
53	*Crapemyrtle	Lagerstroemia indica
54	Fruitless sweetgum	Liquidambar styraciflua 'Rotundilobum'
55	Tulip poplar	Liriodendron tulipifera
56	*Thornless Osage Orange	Maclura pomifera 'White Shield'
57	Cucumber tree	Magnolia accuminata
58	Butterfly magnolia	Magnolia 'Butterflies'
59	Southern magnolia	Magnolia grandiflora 'Alta', 'Hasse'
60	Little Gem magnolia	Magnolia grandiflora 'Little Gem', 'Teddy Bear'
61	Lily magnolia	Magnolia liliflora
62	Star magnolia	Magnolia stellata
63	Sweetbay magnolia	Magnolia virginiana
64	Yellowbird magnolia	Magnolia x 'Brooklynensis'
65	Galaxy magnolia	Magnolia x 'Galaxy'
66	Saucer magnolia	Magnolia x soulangeana
67	*Flowering crabapple	Malus spp
68	Dawn redwood	Metasequoia glyptostroboides
69	Bayberry, Waxmyrtle	Myrica spp
70	Black gum, black tupelo	Nyssa sylvatica
71	American hophornbeam	Ostrya virginiana
72	Sourwood	Oxydendron arboreum
73	Persian ironwood	Parrotia persica
74	Longleaf pine	Pinus palustris
75	Austrian pine	Pinus nigra
76	Scots Pine	Pinus sylvestris
77	Loblolly Pine	Pinus taeda
78	Chinese Pistache	Pistachia chinensis
79	London planetree	Platanus acerifolia
80	American sycamore	Platanus occidentalis
81	Carolina cherry laurel	Prunus caroliniana
82	Pissard plum	Prunus cerasifera
83	Cherry plum	Prunus cerasifera 'Thundercloud'
84	Sand cherry	Prunus pumila
85	Black cherry	Prunus serotina
86	Kwanzan cherry	Prunus serrulata
87	Yoshino cherry	Prunus yedoensis
88	Sawtooth oak	Quercus acutissima
89	White oak	Quercus alba
90	Swamp white oak	Quercus bicolor
91	Scarlet oak	Quercus coccinea
92	Southern red oak	Quercus falcata

93	Shingle oak	<i>Quercus imbricaria</i>
94	Burr oak	<i>Quercus macrocarpa</i>
95	Swamp chestnut oak	<i>Quercus michauxii</i>
96	Chinkapin oak	<i>Quercus muelenbergii</i>
97	9195:A111	<i>Quercus nigra</i>
98	Nuttall oak	<i>Quercus nuttallii</i>
99	Pin oak	<i>Quercus palustris</i>
100	Willow oak	<i>Quercus phellos</i>
101	English oak	<i>Quercus robur</i>
102	Northern red oak	<i>Quercus rubra</i>
103	Shumard oak	<i>Quercus shumardii</i>
104	Post oak	<i>Quercus stellata</i>
105	Southern live oak	<i>Quercus virginiana</i>
106	Sassafras	<i>Sassafras albidum</i>
107	Japanese pagodatree	<i>Sophora japonica</i>
108	Japanese stewartia	<i>Stewartia pseudocamellia</i>
109	Beaked stewartia	<i>Stewartia rostrata</i>
110	American snowbell	<i>Styrax americanus</i>
111	Japanese snowbell	<i>Styrax japonicus</i> 'Pink Chimes'
112	Fragrant snowbell	<i>Styrax obassia</i>
113	Japanese Lilac Tree	<i>Syringa reticulata</i>
114	Bald cypress	<i>Taxodium distichum</i>
115	Arborvitae	<i>Thuja occidentalis</i>
116	American linden	<i>Tilia americana</i>
117	Littleleaf linden	<i>Tilia cordata</i>
118	Silver linden	<i>Tilia petiolaris</i>
119	Windmill palm	<i>Trachycarpus fortunei</i>
120	American elm	<i>Ulmus americanus</i>
121	Chinese elm	<i>Ulmus parvifolia</i>
122	Chindo viburnum	<i>Viburnum awabuki</i> 'Chindo'
123	Arrowwood viburnum	<i>Viburnum dentatum</i>
124	Blackhaw viburnum	<i>Viburnum prunifolium</i>
125	Leatherleaf viburnum	<i>Viburnum rhytidophyllum</i>
126	Alleghany viburnum	<i>Viburnum rhytidophylloides</i>
127	Chaste tree	<i>Vitex agnus-castus</i>
128	*Japanese zelkova	<i>Zelkova serrata</i> 'Village Green'
*	*restricted use species	