Buildings And Architecture

The design of buildings, and how they interact with the surrounding site and neighborhood, can be integral to how users perceive and utilize the building. Architecture can also be used to highlight the goals of a project and influence how the site is used; or even to create a landmark and point of pride for communities and neighborhoods.

Site Selection

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 – City Owned Assets (Pg.116) *Align new facilities and improve existing City owned facilities with the Future Land Use Plan.*
RVA 300 Objective 3.1 – Historic Preservation (Pg.120) *Preserve culturally, historically, and architecturally significant buildings, sites, structures, neighborhoods, cemeteries, and landscapes that contribute to Richmond's authenticity.*

The Planning Commission and Urban Design Committee are tasked with reviewing the "general location, character, extent" of public facilities with the purpose of implementing the Richmond 300 Master Plan. The goal is to accomplish "coordinated, adjusted and harmonious development" and "promote health, safety, morals, comfort, prosperity and general welfare, as well as efficiency and economy in the process of development."

The Richmond300 Future Land Use Map should be used for general guidance on what uses should be located in what locations. Areas marked for green space or parks often include other facilities such as schools and community centers, but not all uses may be appropriate for such locations. Locating in nodes and priority neighborhoods provides opportunities for larger facilities to be positioned for serving the largest populations while often having the best transit access. Uses that create externalities such as noise or fumes should be carefully considered when locating next to green space, public recreation, historic assets, or residential neighborhoods.

Sites should maximize positive impacts and citizen access while minimizing harm to disadvantaged and historically underinvested communities. Factors to consider include: physical safety and health impacts; proximity to community assets; effect of environmental hazards; and access to education and economic opportunities. Location of new facilities should avoid negatively impacting culturally, historically, and architecturally significant assets.

Flexible design approaches can allow co-location of community services and other City functions within one building. Future uses cannot always be anticipated; facilities can

include generalized permanent design features with features that are specific to uses being only semi-permeant.

Building Placement

RVA 300 Objective 4.1 - Urban Design (Page 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.*

RVA 300 Objective 4.1 - Urban Design (Page 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.*

Buildings should respond to the surrounding context, including nearby landmarks, points of interest, and other on-site and off-site buildings. Arrangement should be intentional so buildings enhance connectivity, are conducive to natural movement patterns, and help people naturally flow internally through the site. Building masses can be segmented to allow for public passage through the property (example: indoor and outdoor breezeways, public courtyards, and cut throughs).

Building Orientation

A building should be oriented toward the primary street that borders the site since that is the way that most citizens will view and experience the building. A building on a corner lot should face the larger or more traveled of the two streets but still may need to address the secondary street. It may be appropriate for a building's design to respect more than one street frontage. Orientation can be achieved through architectural interest and detail, façade articulation, window placement and transparency, primary entrances, and landscaping.

Energy efficiency should be considered when deciding building location and orientation. Buildings can "face" south to adapt to passive solar heating, while shade can be used to reduce unwanted heating effects. Shade can include trees planted to the west of a building to block evening sun, overhangs that shade windows and larger expanses of wall from midday sun, or free-standing walls to act as a heat buffer. When buildings are placed close together, shade is naturally provided for the pedestrian space between the buildings and can provide a cooling wind tunnel effect if one of the buildings is taller. Occupied space can be primarily located to the southern end of the building to maximize sunlight.

Building Entrance

RVA 300 Objective 4.1 - Urban Design (Page 126) *Increase building permeability by requiring new buildings to have functioning entrances from the sidewalk and restricting blank walls at ground level.*

A building's entrance should be easily recognizable and clearly visible from the street. The main entrance into a public building should be at ground level, which facilitates wider public access and makes it easier to accommodate all users. It should not be separated, tucked away, or difficult to find. The use of special site design such as exterior paving, lighting, and landscaping is encouraged to highlight a building's entrance. Larger buildings, especially buildings that take up an entire block, may need to include multiple entrances to best facilitate public access and to address multiple street frontages.

Building Setback

A new building should typically have the same or similar setback as existing buildings on the same street. There will be situations, however, where a different setback could be appropriate for the type of building and the desired environment. An example could be that a larger public building, such as schools and recreation centers, may be closer to the street, especially within more urban residential areas. Setbacks are encouraged that allow for the development of usable public space and streetscape enhancing landscaping and discourages the creation of "front lawn" areas that do not offer use to citizens. Buildings must follow zoning requirements for things such as setbacks and lot coverage; however, some projects may seek a Special Use Permit to go outside of the zoning due to site constraints or to seek the best design.

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 – Urban Design (Pg.126) *Allow and encourage a variety of architectural styles.*

When smaller facilities are located in primarily residential areas, it may be preferable to reflect surrounding prevailing architectural elements and building massing. The architecture of larger facilities often presents an opportunity to be unique and create instances of community focus and civic pride. Architecture can be used to announce the use of a building – ex: a community center might include bright colors and ample access points and windows to show the building is welcoming to users.

Building Height, Proportion and Massing

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

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

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

RVA300 Objective 4.1 – Urban Design (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.*

A building's height, width, and relationship to adjacent structures should appear balanced and be compatible with neighboring structures. However, 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-scale structures, larger-scaled buildings should be designed to not overpower smaller adjacent structures. Techniques may include stepping back the building as it increases in height, varying the surface planes or materials 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. A building's roof form should be proportional to the building and its façade, with larger buildings including roof articulation. A corner building can use its roof form to define an entry point location to the block.

Roof materials and colors should be compatible with the selected building materials and colors. Roof designs, green roofs, and lighter colored materials that address the reduction of heat island impact and help manage stormwater are strongly encouraged. Buildings that are closer together can provide shade for intervening public spaces. LEED may provide helpful resources and suggestions.

Zoning Requirements

City-originated projects are expected to follow the City's Zoning Code. Zoning code requirements can include permitted uses, setbacks, height, lot coverage, and accessory structure requirements. Zoning also contains provisions for screening of utility uses and design of parking lots. Special Use Permits and the Board of Zoning appeals may offer relief from the Zoning Requirements.

Facade Design

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

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

RVA300 Objective 4.1 – Urban Design (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.

A building's facade at ground-level is paramount in establishing urban vitality. Ground level design should be comfortable for the pedestrian. Appropriate architectural detailing and windows at eye-level should be provided. Ample entrances should be provided from the street and can be prioritized facing street corners as the most visible part of a building. Display windows are encouraged to provide interest along the commercial streetscape.

Large expanses of blank, undifferentiated walls 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. The even distribution and symmetrical placement of windows help to create a sense of cohesion among larger buildings.

Buildings that face onto Richmond300 Great Streets should provide enhanced treatment of overall architecture and how the building interfaces with the street. For reference, the six design principles established by the Pulse Corridor Plan include: holding the corner, appropriate setback and architectural stepbacks, entrances facing the street, transparency, façade articulation, screened parking and service areas. Architectural stepbacks may be appropriate to reflect surrounding building heights or, when not available, stepbacks around the third story and then the seventh story are generally considered appropriate for human scale design. Corner plazas can be created when two primary streets intersect, along with corner building entrances that are specially architecturally highlighted. Active ground floor uses and window design should continue around the corner of a building, even on streets with low usage – murals can also help to meet this goal.

Architectural Details

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

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

Architectural details may include cornices, roof overhangs, lintels, sills, molding, brick patterns, shutters, entrance decoration, chimneys and any other decorative indentations, projections or additions. They add to the beauty of the structure, reinforce its purpose, and often become the defining elements of the building. They can tie the various elements of a structure together, create emphasis, and provide rich visual interest. 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. Artistic or whimsical elements and the use of bright coloring are encouraged, especially when related to the purpose of the building.

Art and Graphic Elements

RVA300 Objective 4.2 – Urban Design (Pg.127) *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 – Urban Design (Pg.127) *Develop public art projects within Nodes and Priority Neighborhoods to elevate the place's unique character through creative placemaking.*

RVA300 Objective 4.2 – Urban Design (Pg.127) *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.*

Building based art and graphical elements are always encouraged on all projects; creating greater visual interest and sense of place is a priority which art can be a major part of. Priority should be given to low income and historically underinvested neighborhoods. The definition of art can be wide and does not need to be large or impactful. Murals can be used to reduce blank wall space and activate street space that might otherwise be blocked due to interior uses such as utility rooms. Screens with graphic imprint can be used to add visual interest to parking garages. Graphic lighting and colorful uplighting should be considered as well. Whimsical elements may be appropriate.

The Urban Design Committee will typically not approve the exact design of art proposed in its projects; that duty is typically assigned to the City's Public Art Commission (PAC). However, art locations and general character can be highlighted on UDC plans (Example: "Future Mural" as a note with the potential area highlighted). If the UDC depends on the provision of art to accept a certain architectural plan, the UDC is encouraged to provide a condition of approval that requires the art be approved by the PAC prior to approval of a building permit, or similar.

Windows

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. Spandrel windows may be used to maintain window rhythm where it is inappropriate to provide visual transparency due to the interior building layout. Spandrel glass may be used on rear, side, and higher elevations but should be avoided at street level. 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.

Bird safe glass techniques can be considered for larger expanses of windows, buildings greater than three (3) stories tall, or when located next to a green space or water feature. Glass that reflects the surrounding landscape or sky can increase the chances of collision for migrating birds. Bird Safe Glass techniques add visible patterns (such as window clings or stickers) or special ultraviolet (UV) coatings on windows to break up reflections and transparency. Artistic or whimsical designs may be appropriate.

Accessible Ramps

Accessible ramps should provide the same means of use for all users: identical whenever possible; equivalent when not. Primary entrances should be designed so that they do not require a ramp and are at grade. If a ramp is required, it should be integrated into the entrance and not separated, where possible. 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.

The National Park Service provides: "Whenever possible, access to historic buildings should be through a primary public entrance. In historic buildings, if this cannot be achieved without permanent damage to the character-defining features, at least one entrance used by the public should be made accessible."

Historic Buildings

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

RVA 300 Objective 3.1 – Historic Preservation (Pg.120) *Establish controls to ensure that archaeological sites and subsurface materials are properly identified, evaluated, and mitigated. This should include proactive measures to prevent disturbance and potential destruction.*

RVA 300 Objective 3.1 – Historic Preservation (Pg.120) *Utilize historic preservation best practices for City-owned resources to prioritize preservation and reuse activity more heavily than new construction or demolition of historically and culturally significant resources.*

Historic buildings and elements of buildings should be maintained as much as possible in their era of primary historic relevance. However, historic buildings need not be static - and in many cases adapting them to modern uses and needs can facilitate both restoration and future care. New additions to historic buildings and sites should reflect current architecture and, especially when replacing major elements of a building, be visually obvious that they are new. Minor replacements may be appropriate to be visually similar to historic elements. Replacement of failing materials should take into account long term maintenance and the health of the larger building which may require the use of modern materials.

New structures can be located and oriented to preserve existing historically significant or visually interesting assets. Additionally, there may be instances where it is appropriate that existing assets be incorporated into new structures as part of the façade or as points of interest within a larger building. Maintaining and highlighting existing points of

interest not only can contribute to Richmond's authenticity, but can also be an efficient way to enhance the quality of new architecture.

Older buildings can often lack level access or infrastructure to support active travel means. Where possible, sensitive interventions should be made to adapt older buildings and their surroundings to modern requirements without harming their overall character. The historical importance and architectural interest of a structure should be weighed against the impact of such interventions.

Archeological sites and subsurface materials, or the potential thereof, should be identified on all projects and appropriate preservation steps taken, as determined by City, State, and Federal requirements.

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.*

The Richmond Sustainable Design Standards (RSDS) dedicates significant space to sustainable materials selection, including using durable materials.

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 (also known as Exterior Insulation and Finish System (EIFS)) is not an appropriate exterior building material because of its maintenance requirements and lack of durability. EIFS should not be used on the first floor of buildings where it is subject to wear and tear and vandalism. Fiber-cement siding (often referred to by the brand name "Hardie Plank") may be an appropriate material and has been used successfully by the City's Commission of Architectural Review for

projects within the City's Old and Historic Districts.

Resilient Uses

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.*
RVA300 Objective 17.6 – Resilient and Healthy Communities (Pg.202) *Increase the resiliency of infrastructure and community assets.*

Spaces and places evolve over time. Allowing for flexibility in use when designing buildings can allow facilities to address changing community needs. The Richmond Sustainable Design Standards (RSDS) dedicates significant space to resilient building systems and interior design. Disaster resiliency is detailed in the "Sustainability" section of this document.

Local communities hold valuable insights into how an area functions, its history, and the issues that matter most. Their perspective can help shape meaningful and effective public spaces. As the ultimate users of most public facilities, community members may be aware of existing, or imagine future, uses that may not have been taken into account when designing a facility.

Spaces can be created of standard size and shape that can be subdivided in the future. Flexible spaces should also avoid permeant installations within the interior floor plate that act as barriers to different future uses. Highly specific installations or equipment can be thoughtfully placed to allow for future change. Symmetrical window placement that includes larger spacing between groups of windows allows for installation of new walls on the interior.

LEED certification, energy efficiency, and water conservation design is also covered in the Sustainability section of this guideline document as well as the City's Sustainability Design Standards.

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 on City property that will remain stationary beyond two years should be reviewed by the Urban Design Committee as a permanent building.

Even though modular units are technically temporary, landscaping should still be proposed adjacent to the structure. Shade should be prioritized, especially for educational uses, for both users and to reduce the heat load of buildings.

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.