**5A** Appearance and Compatibility

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# 5

## **Chapter 5: Building Design**

Building design is integral to the creation of a successful urban place. Buildings frame the public realm of streets, plazas and parks, link spaces, and create critical relationships with streets and other buildings, and their heights. Building design also helps to demarcate the transition between public and private areas and to provide a sense of safety.

Historically, Reston building design placed an emphasis on simplicity, function, efficiency, design excellence, and a strong relationship with nature. The "Reston character" supersedes any particular style or period of architecture. Buildings in Reston's neighborhoods are typically organized and designed to highlight views to public open spaces or natural features and create an architectural harmony in scale and character. In the Reston Town Center, there is a focus on monumental building design and on place-making in the public realm. Design innovation is also a major focus in Reston, introducing planning techniques and architectural styles not typically used in other suburban communities. Recognizing this tradition, the Plan emphasizes a focus on exemplary design, sustainability and high quality architecture.

Likewise, building design in the TSAs should reflect an emphasis on placemaking, harmony in architectural design and scale, the integration of the built environment with nature, and design innovation and excellence. The monumentality of the Town Center should be emulated by buildings In the TSA.



Building relationship to plaza | Reston, VA | Image Credit: David Madision Photography

5



Building to plaza and streetscape relatioships | Friendship Heights. MD



Fit buildings to contextual mass and scale | Washington, DC | Image Credit: Whitman Walker Clinic

The Building Design chapter addresses issues related to general appearance and compatibility, mass and scale, pedestrian-oriented design, building materials, and sustainable design in order to create a lively mixed-use district exhibiting the highest standards of design.

The following Building Design Principles reflect the building design found in Reston today, and provide a foundation for the guidelines in this section:

- Design buildings with architectural excellence and innovation.
- Emphasize buildings that fit within their context in terms of mass, scale, and material selection to enhance the character of a block, street, and neighborhood.
- Create a pedestrian-friendly environment by using buildings to frame the street and by incorporating a variety of elements to activate the ground floor (e.g. windows, awnings, outdoor patios).
- Highlight important building features, such as entrances through unique façade elements.

- Give equal design consideration to all visible sides of buildings, including building service access areas.
- Use buildings to create edges for the public realm.
- Consider high energy and water efficiency, human comfort and sustainable best practices in the building design.
- Use durable, sustainable, and lowmaintenance materials.



Emphasize the pedestrian realm with public art and ground floor articulation | Reston, VA | Image Credit: Fairfax County



Use buildings to define the public realm | Fairfax, VA | Image Credit: Edens



Consider incorporating sustainability standards such as LEED, SITES, Living Buildings, or WELL Building standards in building design | Pittsburgh, PA | Image Credit: Denmarsh Photography Inc.

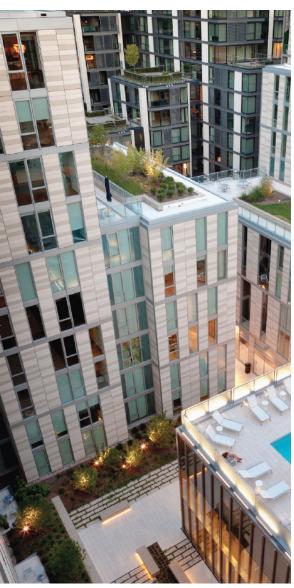
## **5A** Appearance and Compatibility



Use of glass within building façades | Reston, VA | Image Credit: Fairfax County



Corner design | Reston, VA I Image Credit: Fairfax County



Compatible building design | Washington, DC | Image Credit: Aker Imaging

#### **INTENT STATEMENTS**

Historically, building design in Reston has focused on function and efficiency, and on maintaining a balance between the natural and built environments.

- A. Reflect the Reston character by including high-quality, innovative, and sustainable design features.
- B. Create an urban, pedestrian-friendly built environment.
- C. Create a unique architecture that complements the surrounding urban context (existing or proposed).
- D. Provide equal levels of design on all visible building façades.

5A

- Design buildings with sensitivity to their surroundings. Draw on existing or proposed building rhythms, scale, and materials to blend new architecture with existing, without attempting to replicate existing buildings.
- Utilize a consistent build-to line or street edge that frames the public realm but also allows for architectural variation and interest.
- Ensure that all elevations of the building receive equal attention. Carefully articulate building façades that face onto or are visible from the street, or from publicly accessible parks and plazas as the front of the building.
- Create visual unity among buildings within multi-building developments through complementary architectural style, scale, materials, form, and physical layout, while avoiding visual monotony.
- Utilize high quality materials and innovative techniques to reflect the urban character of the TSAs. Avoid the use of materials such as vinyl siding, aluminum siding, and EIFS.
- 6. Design site additions, expansions, and infill sites in a manner that is complementary to existing development.

- Ensure that buildings complement surrounding development with attention paid to the building heights, the rhythm of the structural bays, fenestration patterns, and material selections.
- 8. Landscape roof spaces that are visible from the ground or from raised Metrorail platforms, to enhance their visual interest.



Active ground floor building | Arlington, VA



Consistent build-to line with architectural details to create visual interest | Reston, VA | Image Credit: Ray Cavicchio Photography



Different methods used to break up building masses | Arlington, VA | Image Credit: Fairfax County

## 5B Mass and Scale



Pedestrian walkway to buildings | Reston, VA | Image Credit: Fairfax County



Stepbacks | Reston, VA | Image Credit: Fairfax County



Buildings oriented around public spaces | Reston, VA | Image Credit: Fairfax County

#### **INTENT STATEMENTS**

In greater Reston, buildings are often integrated into the landscape, with priority placed on framing views of natural elements.

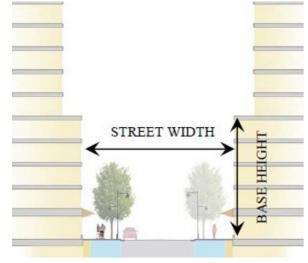
- A. Reinforce the character of a block or street with compatible mass and scale.
- B. Enhance nearby parks, plazas, and open spaces with mass and scale that supports active pedestrian utilization of these spaces.
- C. Ensure varied building heights to create an interesting skyline.
- D. Relate to the street to support walkability and retail uses (where appropriate).

- Refer to Plan guidance for building heights, vary building heights by distance from the Metrorail, with the taller structures located closer to Metrorail stations and along Boulevards and Avenues.
- 2. Scale the building's base or podium height to the width of the adjacent streetscape, using a recommended ratio of street width (measured building face to building face) to podium height of between 1:1 and 1:2. This proportion protects access to sunlight and views from the public realm, and prevents imposing building façades on relatively narrow streets.
- Relate building massing to existing and proposed buildings on-site and on adjacent sites. Consider opportunities for creative transitioning between building heights. For larger masses, utilize architectural features, step-backs, and articulation to visually break up the massing into a series of smaller elements.
- 4. Site buildings and towers to allow for light at street level. Consider techniques such as building step-backs to allow sunlight to reach the street and open spaces, while also adding variety to the building façade.

- Where possible, site buildings and towers to minimize shadows and wind impacts on adjacent uses, particularly single-family dwellings and outdoor public spaces.
- 6. Integrate elements that require a large footprint (such as parking structures, large retail spaces, theatres, and lecture halls) into the core of a building mass.
- Design buildings to accommodate intensity/density while allowing for sufficient parks and other public spaces at the ground.
- 8. Place buildings close to the street to support walkability, activation of the public realm, civic gatherings and retail vibrancy. Consider targeted interruptions to the build-to line for parklets, landscaped seating areas and other focal points to reinforce the connection between the building realm and nature.
- Avoid the creation of fully-enclosed courtyards for private outdoor amenity spaces.



Stepbacks after the base of the building creates a pedestrian scale streetscape while allowing for taller building heights | Reston, VA | Image Credit: Farifax County



Ratio of street width to building base height is important to consider for urban streetscapes

## **5C** Articulation



Articulation use on building example | Fairfax, VA | Image Credit: Fairfax County



Articulation use on building creates visual interest | West Hartford, CT | Image Credit: Turner Construction



Building entry emphasized with projecting bay | Merrifield, VA | Image Credit: Edens

#### **INTENT STATEMENTS**

Reston's emphasis on the pedestrian is enhanced through building articulation to create visual interest, especially on the lower levels, through the use of building details and textures.

- A. Introduce varied building forms and profiles into large structures and building groups.
- B. Provide building forms that respond to the human scale and provide visual interest in a way that reinforces and gives definition to the public realm.
- C. Reinforce the pedestrian character of streets and open spaces.

5**C** 

- 1. Design architectural components as integral elements of the building.
- Minimize long walls of a single height or in a single plane. Articulate long walls with innovative architectural techniques, enhancement of the building zone, or public art.
- 3. Design buildings to provide human scale interest and variety by using one or more of the following techniques:
  - Recessed or projecting bays or features such as balconies, terraces or windows.
  - Varied materials, surface relief, color, and texture to break up large building forms and wall surfaces.
  - Visible joints and details to express the architectural or structural modules.
  - Diverse window sizes, shapes or patterns that may relate to interior functions.
- 4. Emphasize building entries through projecting or recessed forms, color, or materials.

- 5. Provide recesses for important building entries and outdoor dining. Large recesses, greater than 10 feet in depth, should occupy no more than 25 percent of the street frontage. Where outdoor dining is proposed, provide a larger building zone to ensure that dining does not encroach on the sidewalk.
- 6. Provide shifts in massing and variations in height, profile and roof form while maintaining the formal relationship of building placement to the street.



Articulation detail | Washington, DC | Image Credit: Whitman Walker Clinic



Articulate long walls and break buildings into a series of smaller masses | Tysons, VA | Image Credit: mv+a

## **5D** Fenestration and Detailing



Building fenestration allows for visibility of public spaces | Washington, DC | Image Credit: Aker Imaging

#### **INTENT STATEMENTS**

Reston's emphasis on the pedestrian is expressed through fenestration (window and door placement) and detailing to create visual interest and interaction, especially along pedestrian façades.

- A. Emphasize windows and doors to support an active, pedestrian-friendly environment.
- B. Make a physical and visual connection between people on the sidewalk and activities in adjacent storefronts.
- C. Include high quality detailing and design elements at the ground level to provide visual interest and enhance the pedestrian experience.
- D. Ensure that building features near the ground floor are designed at a pedestrian scale and do not overwhelm the pedestrian realm.

- 1. Ensure that the highest level of architectural detail occurs adjacent to the areas of highest pedestrian activity.
- 2. Emphasize the lower stories and the base of a building using pedestrian-scaled architectural features.
- Design ground floor façades, especially where retail activity is desired, with larger percentages (70 percent or more) of glazing. Incorporate transparent glazing into all occupied levels of the building façades that face active pedestrian zones.
- 4. Ensure that building fenestration allows for casual visibility of the public spaces from within the building.
- Design canopies and awnings to fit the architectural style and character of the building. Provide at least ten feet of vertical clearance above the sidewalk for all awnings and avoid projections into the public right-of-way.



Building bump-outs | National Harbor, MD | Image Credit: Fairfax County



Balconies example | Fairfax, VA | Image Credit: Fairfax County



Awnings to emphasize human scale | Fairfax, VA | Image Credit: Fairfax County



Upper floor fenestration | Reston, VA

### **5E** Active Ground Floors



Residential setback | Brooklyn, NY | Image Credit: Fairfax County



Activated lobby at night | Washington, DC | Image Credit: Anice Hoachlander



Active ground floor pedestrian street | Washington, DC | Image Credit: Maxwell Mackenzie Architectural Photographer

#### **INTENT STATEMENTS**

Reston's emphasis on the pedestrian is expressed through providing active uses along streets where heavy pedestrian traffic is expected.

- A. Incorporate a scale and rhythm to openings that supports walking.
- B. Locate walkways and building entries to support primary pedestrian access from sidewalks.
- C. Incorporate active uses that encourage pedestrian activity and visual interest on the ground floor.
- D. Ensure that the form and scale of new architecture fosters a walkable character for streets and open space.
- E. Include multiple building entries along the sidewalk to support a high quality pedestrian environment and create visual interest.

5E

- Ensure that primary building entrances are clearly visible and intuitively accessible from the street. For all buildings facing public squares or plazas, provide a primary access point on the public space.
- 2. When buildings face two or more streets, locate the primary entrance on the more heavily traveled pedestrian route or at the corner.
- Create a focal point for corner buildings through building articulation or by locating the entry near the corner.
- 4. Consider ground-floor residential units with direct access to public streets, plazas, or park spaces. Ensure ground floor units are slightly separated from the public realm to provide a sense of privacy. This can be achieved with design techniques such as stoops, bays, porches, landscaping, or low walls.
- 5. Where no ground floor retail exists, encourage activation and enhance community safety by locating private amenity spaces adjacent to the public streets and open spaces.



Active ground floor pedestrian street | Bethesda, MD | Image Credit: Andrew Propp



Ground floor residential entrances | Arlington, VA | Image Credit: Fairfax County



Clearly define prominent building entryways | Wheaton, MD | Image Credit: Bonstra Haresign Architects

## **5F** Sustainable Building Elements



Large rooftop expanses are ideal for solar panels | Arlington, VA | Image Credit: Alan Karchmer Architectural Photographer



Green Roof Example | Reston, VA | Image Credit: David Madison Photography

#### **INTENT STATEMENTS**

The Comprehensive Plan encourages sustainable building and development practices. Traditionally, development in Reston has often achieved high levels of sustainable design and architectural innovation.

- A. Utilize design strategies that are highly energy and water efficient, sustainable, and reduce the heat island effect.
- B. Capitalize on roof surfaces by incorporating roof top terraces, gardens and usable outdoor spaces.
- C. Construct buildings using durable, sustainable and low-maintenance materials.

5F

- Where appropriate, utilize rooftops for parks, private amenity spaces, resource conservation, or energy collection and management. Examples include:
  - Useable areas with hardscape paths for pedestrian circulation and seating
  - Park spaces
  - Blue and green roof technology
  - Green roof and urban agricultural practices such as herb farming and space for urban bee keeping in green roof designs
- 2. Reference the <u>Fairfax County DPWES</u>
  <u>Recommended Plant Lists</u> for extensive and intensive vegetated roofs.
- 3. Orient buildings to benefit from sunlight exposure, solar energy collection, wind energy collection, and positive air flow.
- 4. Use architectural design features to minimize energy costs and create comfortable environments; integrate the location of solar array or shading devices into the building design.
- 5. Provide day-light devices (such as louvers, clerestory glass, or skylights) on buildings to control natural light.

- Ensure that outdoor amenity areas and parks provide a balance of shade and sun.
- 7. Implement building systems that facilitate the reuse of rain water, and air conditioning condensate. Incorporate innovative designs into park spaces, streetscape areas, and other public spaces to highlight the importance of water conservation and reuse.
- Utilize energy efficient technologies such as solar powered lights, LED fixtures and photocells to reduce energy consumption.
- Utilize bird-friendly site and building design strategies. For example: special window treatments could help reduce bird collisions during the day, while reducing indoor lighting will attract fewer birds at night.
- 10. Consider opportunities to repurpose existing structures.



Green Roof Example | Fairfax, VA | Image Credit: Fairfax County



Rooftop amenity space with shade and sustainable green roof | Fairfax, VA | Image Credit: Fairfax County

## **5G** Design for Active Living



Fitness room with view | Reston, VA | Image Credit: David Madison Photography



Stairs incorporated into exterior design | Arlington, VA | Image Credit: Fairfax County



Stairs Incorporated into interior design | Reston, VA | Image Credit: David Madison Photography

#### **INTENT STATEMENTS**

Reston residents have a tradition of active living that is supported by an expansive network of open spaces, recreational facilities, trails, paths, and sidewalks.

Recommendations relating to those "exterior" features are covered in other sections of this document. Although most interior design elements are not typically discussed in a development application, they should be considered as a means to encourage the "Reston character" of active living.

Reston TSA development should:

Encourage building design that supports walking, biking and active lifestyles.

**5G** 

#### **DESIGN STRATEGIES**

- Highlight building staircases or ramps as central design features. Consider locating principal building lobby functions on the second floor accessible by a prominent grand stair or ramp to encourage walking.
- 2. Provide direct and visible access to stairways/ramps from the main entry, at each floor and importantly, to above ground public spaces.
- 3. Ensure that stairways are well lit and designed for everyday use, not only emergencies.
- 4. Locate commonly used spaces such as restrooms, lunchrooms, shared equipment spaces, staff lounges, and meeting rooms a pleasant walking distance from individual work spaces.
- Include activity spaces in highly visible, central locations. Offer views to the outdoors from activity rooms. Consider locating activity spaces in the ground floor to encourage activation of the street.
- Encourage physical activity by providing secure, accessible shower and locker room and bicycle storage facilities in visible, sheltered locations (preferably on the ground floor).

 Consider the capabilities and ages of specific inhabitants when arranging a building's program.



Encourage cycling with secure storage rooms | Reston, VA | Image Credit: Fairfax County



Ramp incorporated into stairs