



Architecture Research + Overview

This attachment includes: key definitions, staff research, applicable sections of the Rio29 Small Area Plan and staff recommendations.

What are "architectural standards"?

In the context of form-based codes, architectural standards refer to regulations controlling external architectural materials and quality. The Form-Based Codes Institute (FBCI) considers this an additional optional element of form-based codes, alongside landscaping standards, signage standards, and environmental resource standards.

Recommendations

CREATE AN IDENTITY

Create an identity for the area through public art, wayfinding, and other public realm design choices.

Conduct a visual preference survey to identify preferred architectural styles, materials and character for the area.

Adopt more specific architectural requirements to reflect the visual preference survey results.

Encourage natural features and outdoor amenity spaces within development.

Establish frontage characteristics consistent with the adjacent Street Type.

Promote and protect open vistas to mountains. ▶

HUMAN SCALE/PEDESTRIAN ORIENTED

Incorporate minimum architectural standards into zoning, such as first floor transparency and blank wall regulations, to create a visually interesting pedestrian environment.

Bring buildings closer to streets and public amenity spaces.

Require functioning pedestrian entrances at regular intervals along the street.

Relegate all parking and encourage structured parking in the Core areas, with linear buildings along the street.

Reduce or eliminate parking minimums and establish parking maximums.

Encourage shared parking between compatible uses.

Create smaller block sizes.

Mountain views should not be sacrificed to achieve the desired form. Although fieldwork and geospatial analysis was conducted during the Rio29 planning process to identify potential view cones, further study will be necessary.

Considerations should include:

- Prioritizing views from public rights-of-way, particularly Entrance Corridors.
- Incentives for private development to offset potential losses from view preservation.
- Administrative ability to define and regulate views for by-right development.



Views of Lewis Mtn. & Mt. Jefferson Looking South from GSI



View of Southwest Mountains From Rio Road West, Looking NE

Key Definitions | Architecture

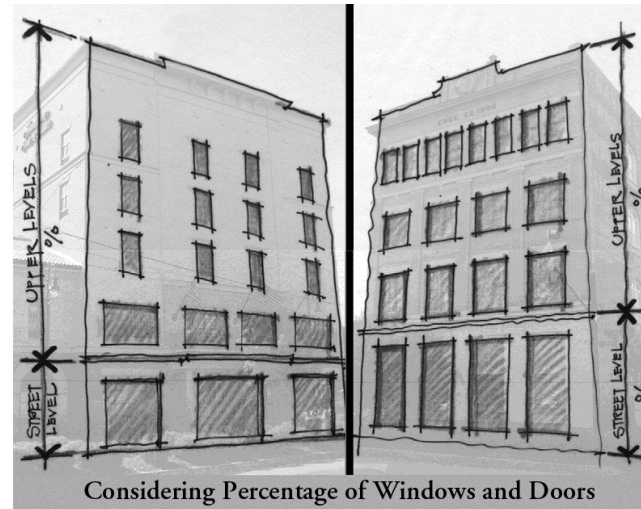
Below is a list of common architectural standards, and associated definitions, incorporated into form-based codes. The definitions are conceptual and were prepared for these discussions regarding Rio29 form-based code.

Human Scale

Human scale structures and architectural features create an interactive, welcoming experience for pedestrians and residents, and orients the street to the pedestrian experience rather than the automobile experience.

Large human scale elements include: building height, block length, and build-to lines, which are included in the building standards portion of a form-based code.

Small human scale elements include: **transparency**, or the percentage of windows and doors on a building, and **façade articulation**, which divides a building's façade vertically and/or horizontally to create visual interest.



Quality Design Materials

The intent of regulating building façade materials is to provide minimum material standards to ensure use of well-tested, high quality, durable, weather resistant materials on the majority of finished surfaces.

High quality materials can improve quality of buildings in that they weather well, have a low failure rate, require a low level of maintenance, and create buildings with a longer life cycle and sense of permanence.



Key Definitions | Architecture

Parking Structures

Determines the architectural elements, forms and materials used for parking structures.

Appropriate location, landscaping and screening of surface and structured parking lots will contribute to the vibrant, active, pedestrian-friendly character intended for the Rio29 area.

Service Areas + Equipment Placement

Mechanical equipment and associated service areas can have a negative visual impact and detract from design of buildings and streetscapes.

This standard works to ensure that the visual impact of this equipment is minimized.

Views

Identifies important scenic views and establishes design criteria for preserving these views within the built environment

Street Trees

Determines the location and type(s) of street trees to ensure a sense of enclosure along a street, provide pedestrian comfort and contribute to the ecological health of the area

Lighting

Determines the location, brightness/intensity and type of light fixtures to enable appropriate lighting for nighttime visibility, safety and decoration as well as to mitigate light pollution

Signs

Determines maximum sign size and types permitted, including how much of a building's transparency may be blocked by a sign



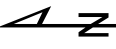
Albemarle County
Community Development

Rio29 Small Area Plan

REGULATING PLAN &
ENTRANCE CORRIDOR OVERLAY PARCELS 8/6/2019

0 0.125 0.25 0.5 1 Miles

0 0.25 0.5 1 Kilometers



	Urban Core Character Area
	Core Character Area
	Flex Character Area
	Edge Character Area
	Within Entrance Corridor (EC) Overlay District

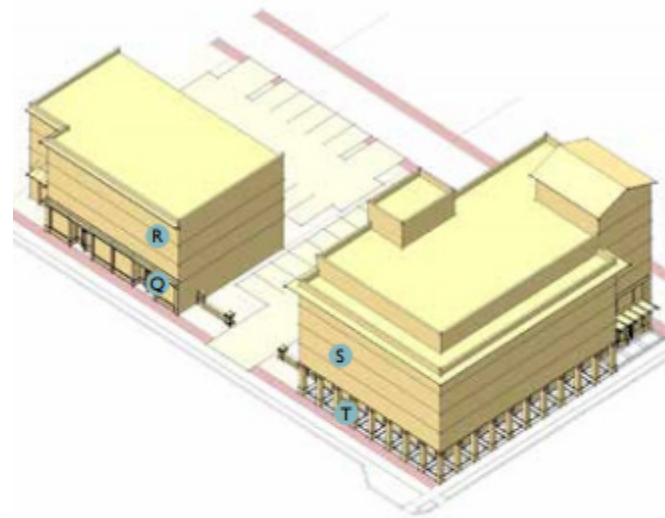
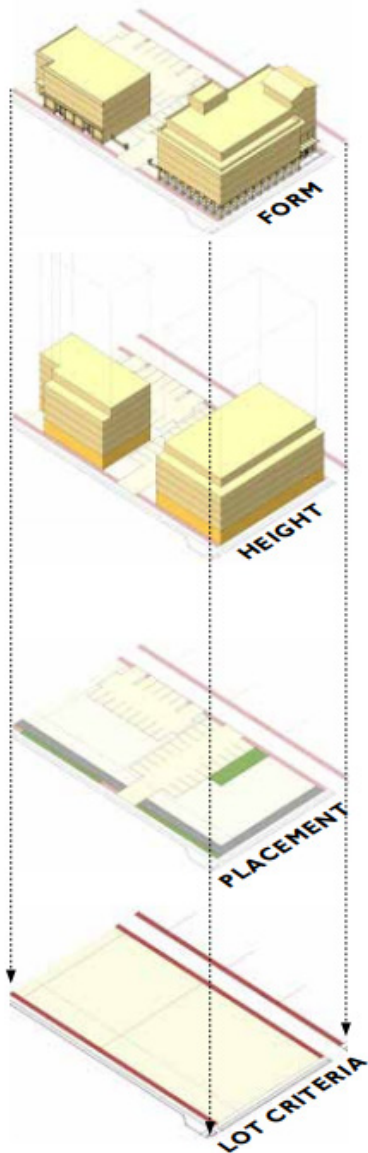
Applicable Entrance Corridor Guidelines

Below is a table highlighting the architectural standards that are included in the current Entrance Corridor guidelines: transparency; materials/color; facade articulation; and lighting.

Transparency	13. Any appearance of “blankness” resulting from building design should be relieved using design detail or vegetation, or both.
Materials/Colors	9. Building forms and features, including roofs, windows, doors, materials, colors and textures should be compatible with the forms and features of the significant historic buildings in the area, exemplified by (but not limited to) the buildings described in Appendix B. The standard of compatibility can be met through scale, materials, and forms which may be embodied in architecture which is contemporary as well as traditional. The replication of important historic sites in Albemarle County is not the objective of these guidelines.
	12. Architecture proposed within the Entrance Corridor should use forms, shapes, scale, and materials to create a cohesive whole.
Façade articulation	9. Building forms and features, including roofs, windows, doors, materials, colors and textures should be compatible with the forms and features of the significant historic buildings in the area, exemplified by (but not limited to) the buildings described in Appendix B. The standard of compatibility can be met through scale, materials, and forms which may be embodied in architecture which is contemporary as well as traditional. The replication of important historic sites in Albemarle County is not the objective of these guidelines.
	11. The overall design of buildings should have human scale. Scale should be integral to the building and site design.
Lighting	21. Light should be shielded, recessed or flush-mounted to eliminate glare;
	22. The light should achieve an incandescent effect;
	23. Dark brown, dark bronze, or black are appropriate colors for free-standing pole mounted light fixtures in the Entrance Corridors.
	24. The height and scale of freestanding, pole-mounted light fixtures should be compatible with the height and scale of the buildings and the sites they are illuminating, and with the use of the site. Typically, freestanding pole-mounted light fixtures in the Entrance Corridors should not exceed 15 feet in height. Fixtures that exceed 15 feet in height will typically require additional screening to achieve an appropriate appearance from the Entrance Corridor.
	lighting used for decorative purposes will generally not be approved.
	25. Exterior light used for decorative effect shall:
	a. be compatible with the character of the Entrance Corridor. Compatibility of exterior lighting and lighting fixtures is assessed in terms of design, use, size, scale, color, and brightness.
	b. impact only the immediate site. The effect of the illumination should not be discernible from distances along the Entrance Corridor.
	26. Where used for decorative effect, outdoor light fixtures shall:
	a. be equipped with automatic timing devices and shall be extinguished between the hours of 11:00 p.m. and dawn.
	b. be shielded and focused to eliminate glare. Glare control shall be achieved primarily through the use of such means as cutoff fixtures, shields and baffles, and appropriate application of mounting height, wattage, aiming angle, fixture placement, etc.
	c. be cutoff luminaires, aimed so as not to project their output beyond the objects intended to be illuminated; or non-cutoff luminaires, equipped with glare shields, visors, barn doors, and/or other similar shielding accessories as required to meet the following criteria: Light distribution from all lighting installations shall be cut-off at all angles beyond those required to restrict direct illumination to within the perimeter of the landscape feature being illuminated.
d. never exceed 3,000 lumens. Further restrictions on lumens may be imposed by the ARB.	
e. not be modified to reflect seasonal colors.	
f. be of a number that is compatible with the scale of the object and the development to be illuminated, such that the light emitted will not over-illuminate or overpower the site, as determined by the ARB.	

Simple Architectural Approach

Case Study: Virginia Beach Oceanfront Resort District - Virginia Beach, VA



Form

Transparency

Q Ground story (min)	30%
R Upper story (min)	15%
S Blank wall (max)	30'

Entrances

T Street-facing entrance	Required for primary entrance
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Virginia Beach's Oceanfront Resort District uses a broad and more flexible approach to architectural standards. It includes several different scales for regulating site design: lot criteria, placement, height and form.

The form portion of this code addresses architectural standards. It includes transparency standards for the ground story and upper stories, with maximum "blank walls" permitted as well as standards for the entrance location.

This approach enables flexibility and creativity in Rio29, an area that does not have a defined architectural character. Yet this flexible approach allows for greater uncertainty in development outcomes.

Link: <https://www.vbgov.com/government/departments/sga/projects/Documents/20171205-ORDFBC.pdf>

Detailed Architectural Approach

Case Study: Boulder Junction Form-Based Code - Boulder, Colorado

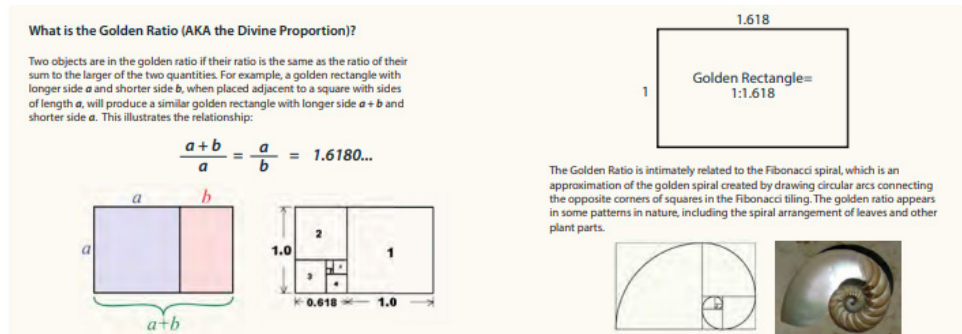


Figure M-1 (51). Description of the Golden Ratio



Figure M-1 (52). Example of Documentation of Use of the Golden Ratio in the Building Design

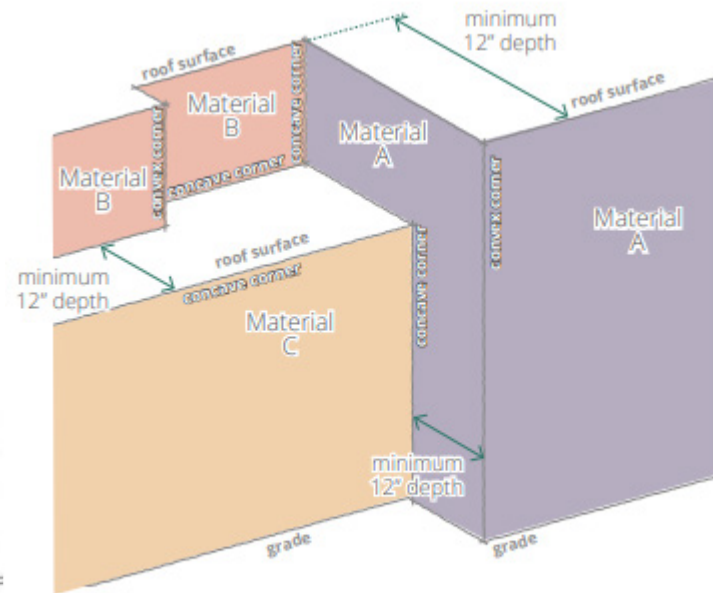


Figure M-1 (45). Diagram of Allowable Changes in Surface Materials

Boulder Junction's form-based code includes several architectural standards: façade materials, building construction quality, building façade elements, mechanical equipment and appurtenances, building articulation, building massing, and building proportions.

This approach is highly specific, comprehensive and prescriptive with respect to architectural standards. It is more time intensive and challenging for staff to develop without an established architectural character in Rio29. This is a more rigid approach that provides clear expectations for staff, community members and developers.

Link: https://www-static.bouldercolorado.gov/docs/Boulder_Pilot_FBC_June_1_2016_final_draft_revised-1-201606010949.pdf?ga=2.153505275.2108279477.1570027001-76269194.1570027001

Staff Recommendations

Staff recommends incorporating Entrance Corridor guidelines as regulations within the form-based code to eliminate the need for ARB review of individual development projects within Rio29. Doing so can help incentivize redevelopment by creating a more efficient process and increasing certainty for developers and property owners.

This approach will require more specific and comprehensive standards for architectural design in Rio29 than those currently included in the Entrance Corridor guidelines. Drafting new architectural regulations in the allotted timeline for this project (framework complete by December 2019 and final adoption in 2020) will not be possible due to the complexity of this work and current staffing limitations. Staff recommends a comprehensive set of architectural regulations be developed as a second phase for this project, after the initial code adoption in 2020.

As an interim measure, staff recommends adopting a new category of staff approved County-wide Certificate of Appropriateness (CWCoA) for Rio29. The proposed Rio29 CWCoA would include criteria specific to Rio29 collaboratively developed by County staff and the ARB. The Rio29 CWCoA would allow staff to review and approve architectural standards and eliminate the need for ARB review for relevant projects in Rio29.

Staff recommends the Rio29 CWCoA focus specifically on topics of transparency, materials/color, façade manipulation, and lighting. These are the topics currently included in the Entrance Corridor guidelines and would appropriately streamline the process in this initial phase of work.