



# SINGLE FAMILY RESIDENTIAL DESIGN MANUAL

HEALTHY  
SUSTAINABLE  
COMMUNITY

*Avondale*<sup>AZ</sup>



**SINGLE FAMILY DESIGN MANUAL**

**AMENDED AND RESTATED**

**MAY 20, 2013**

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## Introduction

The Single Family Residential Design Manual seeks to provide project designers, developers, and residential property owners with the City's expectations for residential development. Compliance with the requirements and recommendations herein will be used as a criterion of approval during the City's design review.

This document is designed to further the goals and policies in the Avondale General Plan to build a quality "Community of Choice." This includes emphasizing visual character, environmentally conscious design, and pedestrian-friendly opportunities to establish a healthy, sustainable community.

The Avondale General Plan stresses the desire for neighborhoods to become more sustainable by promoting walkable, livable communities that enhance a resident's quality of life.

As the development process is undoubtedly unique to each proposal, it is therefore not practical for this document to address every possible solution and criterion. The City encourages the creative and innovative use of current and emerging development practices, and seeks to strike a balance between the needs of the homebuilding industry and the consumer. Flexibility and variance from the standards contained within this document will only be offered for new and creative projects that fill a housing need for the City.

## Purpose

This Manual was prepared to promote and create a sense of community, livability, and unique identity for the residents of Avondale. The points throughout provide a tool to assist the development community in achieving and constructing sustainable, residential neighborhoods. The intent is to provide developers with

a set of specific requirements and options that will achieve the City's expectations for single family residential development by:

- Providing a framework for residential developments that offer diverse housing products, floor plans, and architectural styles that will not adversely affect the present or future development of the City.
- Eliminating the redundancy of new tract home developments of smaller, narrow lots, uniform setbacks, garage dominance, and a limited range of exterior house elevations, building materials, and colors.



Figure 1: Varied streetscape.

- Providing key components, such as materials used in constructing, finishing, or accenting any single family residence, that will add value to the exterior finish and create a viable streetscape and attractive neighborhood.
- Providing innovative street designs that create safe, walkable neighborhoods, and plentiful useable open space and amenities.
- Serving as an addition to the General Plan, Subdivision Regulations, Planned Area Development (PAD), Residential Zoning Districts, and the General Engineering Requirements Manual.

## Intent

The intent of this Manual is to ensure that residential developments are architecturally diverse and appear to be neighborhoods that have evolved naturally over time. Quality design, variation in home sizes, floor plans, elevations, and lot sizes contribute to such diversity. The Manual addresses four primary issues:

1. Design challenges such as small and narrow lot tract homes, uniform setbacks, minimal range of housing choices, and garage dominated streets.
2. Offering a range of lot sizes and housing products not currently in Avondale.
3. Locating smaller lot developments within proposed urban, infill, or revitalization areas that are compatible with the Avondale General Plan 2030.
4. The need to develop larger/wider lots, as prescribed in the General Plan and provide a special sense of place with open space that is bounded by the Estrella Mountains, Gila and Agua Fria Rivers, and other beautiful natural landscapes in areas designated for Estate/Low Density Residential and Rural Low Density Residential development.

The understanding is that new subdivisions and housing products meet a high standard for new development predominantly within the southern boundaries of the City. Luxury residential communities in this area shall create a true destination that draws residents interested in an outdoor lifestyle and living amongst the tranquility of the Sonoran Desert.



**Figure 2: Homes front on common open space**

## Unique Neighborhoods

New approaches to residential development are essential in order to contribute to community design objectives. This section discusses four: New Urbanism, Suburban Development, Infill, and Estate Subdivisions.

### New Urbanism

*The requirements set forth below are applicable to development in the Medium-High Density Residential, High Density Residential, and Mixed Use General Plan Land Use Designations.*

The key goal of this section is to incorporate neo-traditional neighborhood concepts into development and redevelopment by locating housing in areas where residents can walk to local retail/commercial areas, interact with their neighbors, participate in urban agricultural gardens and markets, and access transit.



Figure 3: Homes line a common area.

In order to create compact, pedestrian-oriented, mixed use developments, incorporate the following principles into residential design:

1. Provide a neighborhood activity center or plaza, equipped with a transit stop, which will serve as a centralized meeting place.



Figure 4: Homes fronting on common space contribute to sense of place.



Figure 5: New Urbanism planning example.



Figure 6: Sidewalk provides safe pedestrian route



Figure 7: Detached garage in rear of lot.

2. Provide a gridded street network that offers a minimum of two of the following options:
  - a. Narrow Streets and widened, tree-lined, detached sidewalks.
  - b. Street traffic calming measures, such as chicanes, that help make the neighborhood more pedestrian friendly.
  - c. Incorporation of rear-loaded garage access to lots fronting on open space or a local street.
  - d. Incorporation of detached garages located in the rear half of a lot and largely obscured from view from adjacent streets.



Figure 8: Garage access at rear of lot.

3. Design and orient lots to include visible and pronounced entries from the sidewalk, large (minimum 200 square feet) porch areas, and/or court yards.



**Figure 9: Front porch spans length of front elevation**



**Figure 10: Paving stones define a patio space.**

4. Provide visually contrasting paving surfaces for all courtyard, porch, and patio areas.
5. Transition lot sizes when backing up to existing larger lot developments (9,000 SF or greater) or undeveloped land designated for Estate Low Density or Rural Low Density development.

6. In order to create the framework for new urbanist neighborhoods, the following cross sections are offered as conceptual designs and require approval from the City Engineer:

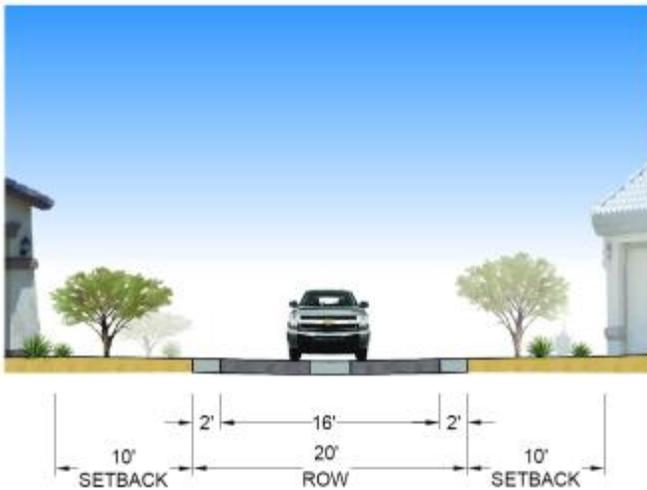


Figure 11: Rear Loaded Drive, one-way travel



Figure 12: Modified Minor Collector with median

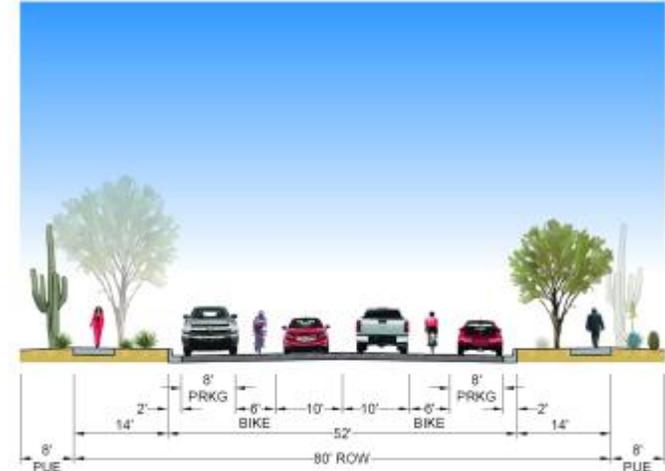


Figure 13: Modified Minor Collector, no median

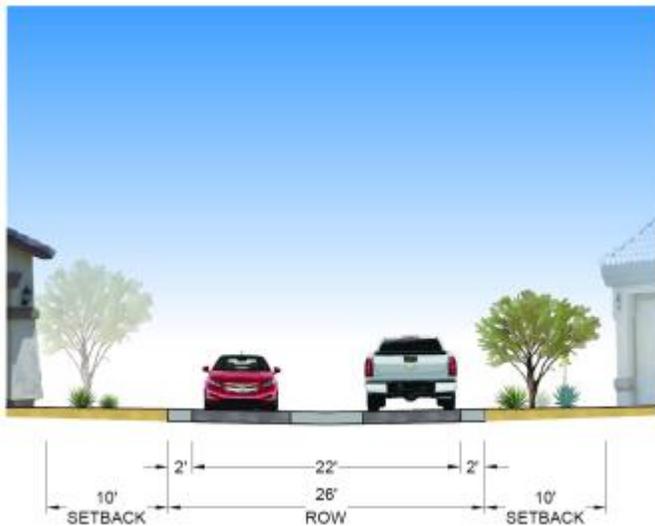


Figure 14: Rear Loaded Drive, two-way travel

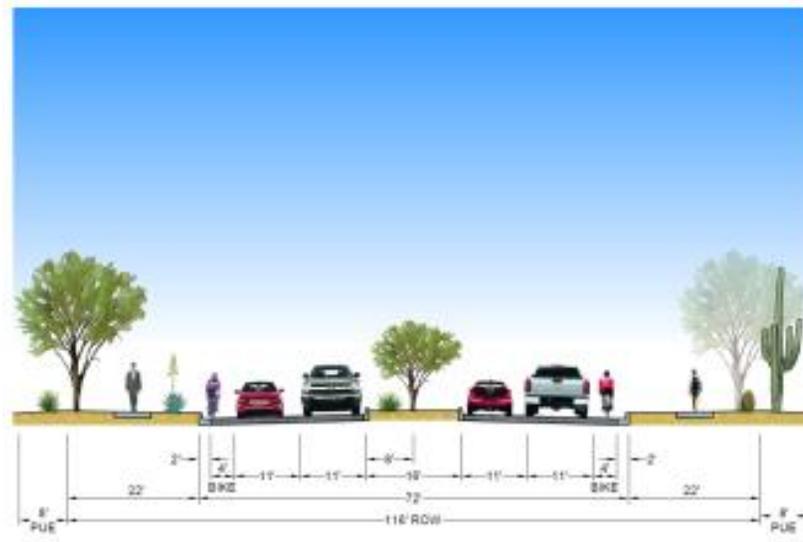


Figure 15: Modified Major Collector with median

## Suburban Development

*The requirements set forth below are applicable to development in the Medium Density Residential Land Use Designation.*

Suburban style development is the predominant form of existing residential development in Avondale. These subdivisions should be designed to be family-friendly with a strong emphasis on the aesthetics of perimeters, common areas, and streetscapes.

1. Tree species that provide full canopy cover shall be used adjacent to walkways and in front yards.
2. Throughout subdivisions, not just adjacent to collector streets, streetscapes must be softened by the provision of roadway adjacent planting areas that can also be utilized for storm water retention purposes.
3. Detached sidewalks separated from the street by a planting strip shall be provided to create safer pedestrian environments and enhance streetscape aesthetics. The planting strip must provide for a minimum 5' width of planting area clear of any public utility easement (PUE) and shall contain full-canopied trees placed at minimum 25' intervals.



**Figure 16:** Detached sidewalk and planting area with full canopied tree.

4. Collector streets should be designed to contain entry landscape medians at all collector/arterial and collector/collector intersections.
5. To the extent possible, maximize the number of view lots that back onto common areas or other open spaces.
6. Minimize the use of walls to the extent possible. Where walls are required, priority should be placed on using sustainable materials in their design.
7. Stagger front and rear setbacks throughout a neighborhood to avoid a monotonous streetscape.



**Figure 17:** Rear yard with view fencing backing onto common area.

## Infill Development

*The requirements set forth below are applicable to development within subdivisions where at least 50 percent of lots contain existing development.*

Common elements that contribute to the character of an individual home and the collective character of the neighborhood include how dwellings blend with the surrounding and natural environment, scale, architectural style, how dwellings are sited on their lots, the way the home is engaged with the street (porches, front doors, driveways, and garages), roof forms, building materials and colors, and landscaping. Accordingly, infill development should be consistent with the existing context and scale of the neighborhood. An example of infill redevelopment:



To ensure consistency for infill developments:

1. Design new and remodeled dwellings to be consistent with the existing scale of the neighborhood. The dwelling shall appear proportional and complementary to other dwellings in the neighborhood.
2. Site and design new and remodeled structures in relationship to existing structures and take into account the impacts on the neighboring sites.
3. Minimize mass, bulk, and scale through the use of appropriate roof pitch and type, and window and door locations. Break up the mass in order to create interplay between various building elements.
4. In neighborhoods that are transitioning from one style to another, structures that differ in size, bulk, scale, height, or architectural style from adjacent developments may be allowed if the transitional design is consistent with design goals for the larger neighborhood.

## Estate Subdivisions

*The requirements set forth below are applicable to development in the Estate/Low Density Residential and Rural Low Density Residential General Plan Land Use Designations.*

Estate Subdivision development has its own unique character, with spacious yards and extensive landscaping to create a feeling of openness and low density.

1. The following standards may be modified subject to approval by the City Engineer:
  - a. Ribbon curbs in lieu of vertical curbs and gutters.



**Figure 18: Low impact curbing.**

- b. Reduced pavement widths for private streets based upon traffic considerations such as maneuverability of safety and service vehicles, speed, traffic generation, and parking restrictions.



**Figure 19: Narrow street.**

- c. No sidewalks or detached sidewalks on only one side of the street.
  - d. Permeable surfaces for sidewalks that meet handicap accessibility requirements.
  - e. Modification of street lighting standards.
  - f. Setbacks that are highly varied.
  - g. Any other subdivision feature that is not listed, but which meets the general intent for low density development, may be considered.

- In order to create the framework for estate lots in low density areas, incorporate the following cross sections into street layouts.

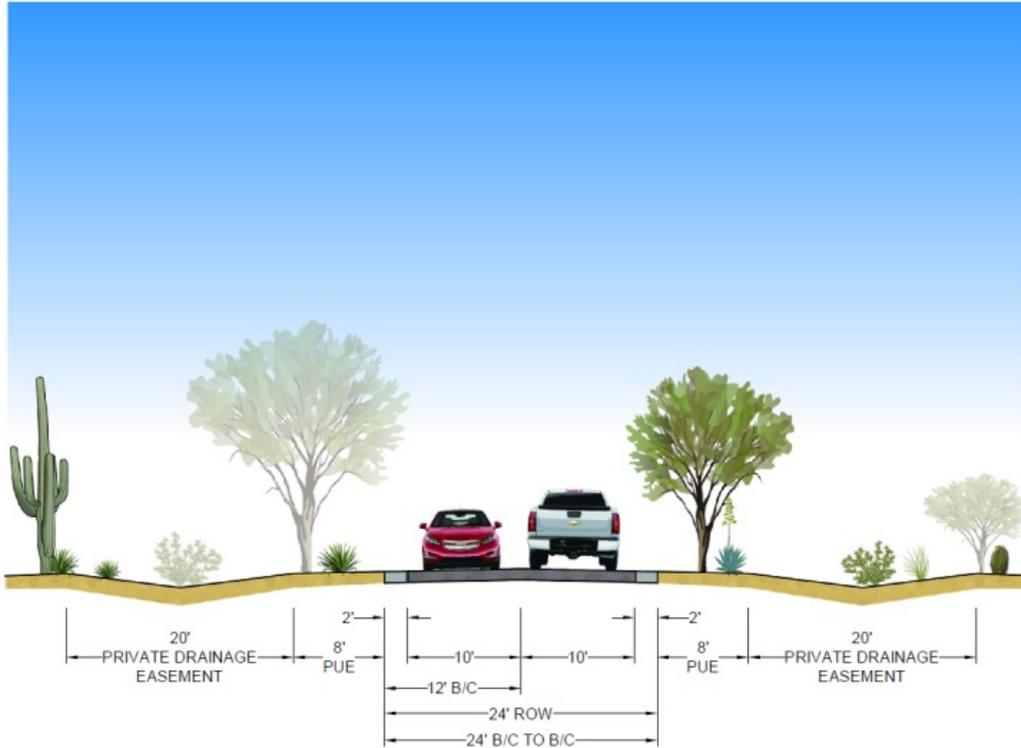


Figure 20: Typical 2-way Local Drive, Option 1

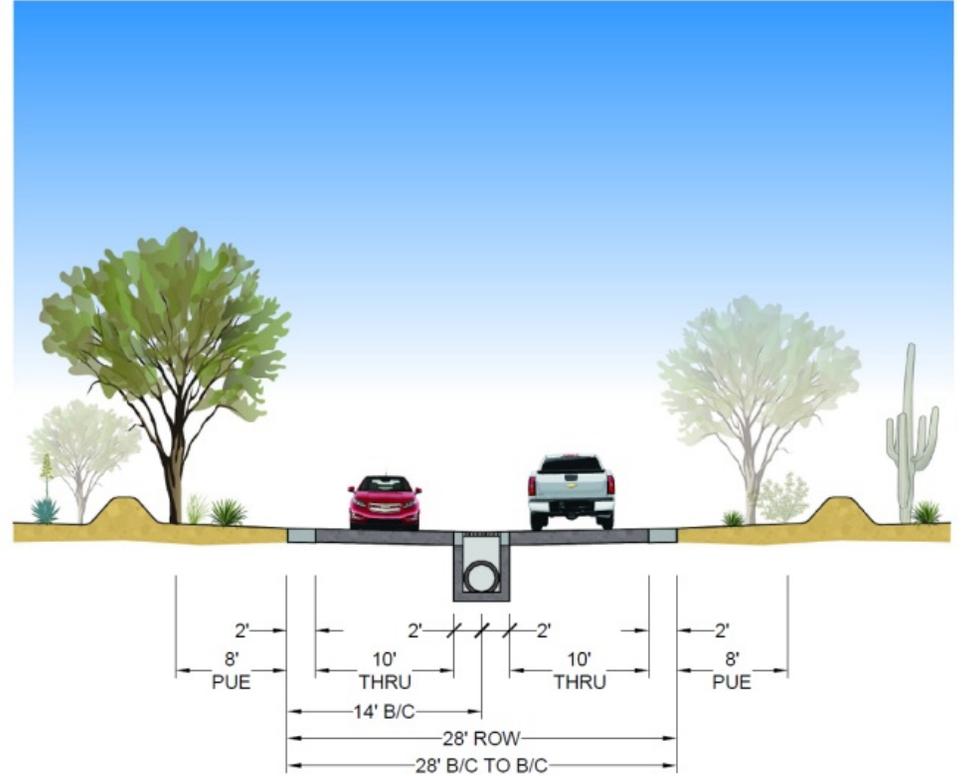


Figure 21: Typical 2-way Local Drive, Option 2

## Site Design

Site planning is one of the most important aspects of making a residential neighborhood a desirable place to live. A mix of densities and lot sizes creates diversity in housing products. Neighborhoods should be pedestrian scaled, have a streetscape encompassed with shade and pedestrian connections, and provide enhanced pedestrian access to open spaces, arterial streets, transit stops, and neighborhood serving commercial uses.

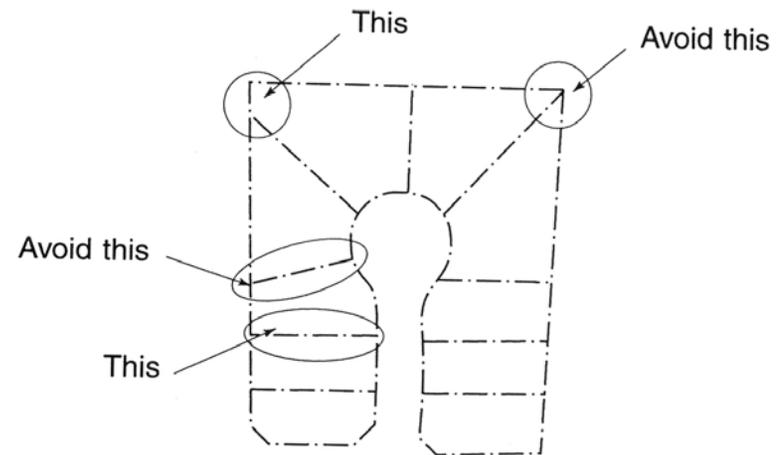
Building placement enhances the quality of the streetscape. Therefore, neighborhoods development that provide variation in lot sizes and building placement avoid a repetitive and regimented appearance.

### Lot and Layout Design

The variation of placement and orientation within new subdivisions is essential to achieve visual variety and avoid redundancy as required below:

1. Vary the orientation of a home to achieve visual diversity and avoid monotony.
2. Recess front facing garages from the front façade or provide side entry garages in order to break the uniformity and to vary the street scene.
3. Where the front-facing garage is placed "flush" with the home's front façade, a courtyard, porch or other feature that extends closer to the street than the garage face shall be included on the lot.
4. When siting homes, highlight view corridors of prominent natural features, such as the Estrella Mountains, from streets, backyards, and neighborhood open space.

5. No two identical elevations shall be placed on adjacent lots or directly across the street from each other.
6. Avoid the placement of lots centered on "T" intersections and avoid driveways opposite a "T" intersection.
7. Increase the width of corner lots an additional fourteen feet (from the standard set in the Zoning Ordinance) or provide a minimum fourteen-foot wide landscape tract (inclusive of PUE) on the side of the lot adjacent to the street.
8. Design the neighborhood so that no more than eight lots are placed in a row backing onto an arterial or collector street before there is a change in the lot pattern or streetscape.
9. Group wider side yards together on some adjoining lots to provide a separation of twenty feet or more between houses.
10. Avoid creating narrow lot frontages or irregular lots that create un-useable space. Avoid acute angles where rear lot lines and side lot lines meet. See diagram below.



11. All lots shall be designed so that there is a logical location for all trash receptacles and a/c units out of sight to the public or neighbors and fully screened behind a fence or gate.

The following design concepts are recommended:

1. Vary lot widths where appropriate throughout a neighborhood to create diversity in street scene and product.
2. Maximize energy conservation by considering climactic factors such as prevailing winds, shade trees, window and door orientation, and the positioning of buildings on the site.



Figure 22: Passive solar home maximizing windows that face south.

### Perimeter Walls

Landscaped earthen berms are preferred to perimeter walls. Where perimeter walls are used, they shall be designed to create an attractive appearance to complement the style and character of the home, street layout, and neighborhood, and in accordance with the Avondale Zoning Ordinance regulations. Landscaping should be

integrated to create additional visual interest as well as soften the wall's appearance.



Figure 23: Perimeter wall with stone veneer pilasters.

1. Construct walls with materials, such as smooth stucco finish, brick, stone, or other approved masonry, or gabions, designed in a style, material and color to complement the neighborhood.
2. Utilize non-transparent materials for walls that are required for screening purposes and incorporate standards to provide for wall inserts and/or decorative columns or pilasters to provide relief.
3. Step walls on sloping terrain in order to follow the terrain.
4. Provide frequent breaks in perimeter walls to allow for pedestrian access to adjacent streets.

## Entry Areas

Residential neighborhood entries shall incorporate features to set the overall design tone for the development and to provide a sense of arrival into a community.



**Figure 24: Architectural feature at development entry.**

Entry features should reflect the overall architectural identity and character of the development. A minimum of three of the following features shall be incorporated into entry areas:

- Colored and textured paving
- Water harvesting feature
- Accent lighting
- Enhanced landscaping including large, specimen trees and landscaped medians

- Decorative metal work
- Stone wall features
- Architectural monuments

## Street Layout

Plan streets to efficiently connect all parts of the neighborhood and simplify circulation patterns. All modes of transportation – vehicular, transit, bicycle, and pedestrian - shall be integrated into a circulation network.

1. Streets shall follow the City's hierarchy of street classifications and be designed to conform to the City's General Engineering Requirements Manual. Arterial and collector grid systems shall be maintained at the 1/2 mile, and mile spacing.
2. Discontinuities and curvilinear roadways on arterial and collector corridors are prohibited.
3. New streets shall connect with adjacent existing public streets to form a neighborhood network.
4. A street circulation network shall provide access to all areas of the development, be shaded by rows of trees, and be continuous whenever possible.
5. Dead-end streets are discouraged unless they connect to an overall pedestrian trail system or open space area.
6. Cul-de-sacs may only terminate on lots, minimum 20-foot wide by 20-foot deep landscape tracts, or entrances to a common open space area.



Figure 25: Nicely landscaped traffic calming measure.

7. Use traffic calming measures, such as islands, traffic circles, chicanes, or bulbed intersections, to slow vehicular speeds within the neighborhood, especially where pedestrian pathways intersect streets.



Figure 26: Public walkway through community garden.

8. Provide direct vehicular, bicycle, and pedestrian connections to adjacent residential and non-residential areas.

9. Internal pathways shall connect to amenity features such as parks, community buildings, or open space.
10. Neighborhood design should prevent homes from fronting on arterial and collector streets.
11. Incorporate a design theme for directional signage throughout the neighborhood.
12. Provide detached sidewalks with a minimum eight foot landscape planting area. See City standard cross-sections in the City of Avondale Supplement to MAG.



Figure 27: Detached, tree-lined sidewalk.

13. Incorporate residentially-scaled street lights, landscape medians, separated sidewalks with street trees and landscaping, and accent paving at neighborhood entries and crosswalks throughout the development.



Figure 28: Pedestrian lighting.

14. All gated communities are required to provide private streets. Design entry gates to be compatible with overall design intent of the development.

## Landscaping

This section of the Manual supplements the requirements contained within the Avondale Zoning Ordinance and should be used to soften and embellish the quality of residential environments, provide shade along walkways and public spaces, and accent entries.

1. An overall landscape theme and plant palette that will create an identity and natural appearance for each neighborhood must be established.
2. Front yards and public areas should incorporate native plant materials and shade trees that both reduce the urban heat island effect and accentuate the architectural style reflected in the overall design of the site.



Figure 29: Desert landscape palettes can vary.

3. Utilize densely limbed evergreen plant species to create privacy between neighbors and to screen living areas.
4. Provide landscaping that mitigates heat gain at southern and western exposures.
5. Decorative tree grates and detached sidewalks with trees and landscaping are encouraged to be used when possible in walkway and public open spaces areas.
6. Backflow Prevention Devices shall be screened and carefully placed throughout the development.
7. All Conditions, Covenants and Restrictions (CCR's) for each neighborhood shall address landscape maintenance requirements for open spaces areas, entries, and individual's lots.
8. A maintenance and replacement program shall be put in place to reduce the likelihood that turf areas, trees, and shrubs will become a detriment to the neighborhood.

## Storm Water Retention

Retention areas shall meander through the development as a connected, green-space amenity, such as a greenbelt, and shall be designed to encourage maximum recreational use:

1. Contour the sides and bottoms of the basins to create a natural looking appearance. Use varied slopes and curvilinear edges to create a more natural looking facility instead of a rectangular form and long stretches.



Figure 30: Seamless integration of retention into the landscape.

2. All common landscaped areas, adjacent rights-of-way, tracts and retention basins shall be owned and maintained by the HOA.
3. Maximize water permeability by reducing paved areas (hardscape), using of permeable paving materials, and preserving open space drainage ways when feasible.

## Open Space and Amenities

Open space is considered the common area portion of a residential subdivision, located outside of required setbacks, where there are no buildings, driveways, or parking. Usable open space shall be considered any area on a site which is designed to be used for recreational or gathering purposes and viewed as an amenity to the residents.

A multigenerational approach should be considered when designing open space to promote resident interaction and community choice.



Figure 31: Multiple amenities in an open space.

1. Provide a sufficient amount of open space and facilities to match the scale of the development.

2. Usable open space may include tot lots, community gardens, swimming pool areas or clubhouses, turf play areas, private parks or dedicated park sites, multi-use paths, improved utility corridors, volleyball, basketball, and other sports courts, trails, picnic areas, or other similar amenities.
3. Integrate pocket parks throughout neighborhoods that allow for every lot to be no more than 1/4 mile from a park. Pocket parks shall be:
  - Thoughtfully designed as part of the street and residential lot pattern, and shall be connected to the neighborhood by sidewalks or trails.
  - Generally one-quarter to one-half acre each; however, they can be any configuration that adds an amenity and identity to the neighborhood.
  - Located along a roadway for access.
  - Designed to provide shade and an area for children to play.
4. Multi-use trails which tie into City trail systems shall be a minimum ten feet in width and lighted with low level security lights. Open space trails not interconnected to a larger trail system shall be a minimum of six feet in width and lighted with low level security lights.
5. Pedestrian amenities (such as benches, trash receptacles, bicycle racks, and pedestrian scale lighting) should be provided along trails every 800 feet, and in the vicinity of the tot lots, sport courts, and other active open spaces.



Figure 32: Multi-purpose sports courts are excellent open space amenities.

- 6. Active play areas are to be carefully designed and located to ensure safety and compatibility. Tot lots are to be located central to the neighborhood or in each phase of a development if designed as a multi-phased project. Integrate other types of amenities to allow choices for all age groups.



**Figure 33: Adjacent homes provide surveillance at basketball courts.**



**Figure 34: Shade is an asset to open space amenities.**

- 7. Trees with wide canopies shall be planted in close proximity to pedestrian seating to provide cover from the sun.
- 8. Provide open space in areas that will create focal points and scenic views.
- 9. Locate decorative street lighting throughout the development in open space areas.

- 10. All open space areas shall provide connectivity to one another by designing the areas to meander as a greenbelt.



**Figure 35: Connections.**

- 11. Open space areas shall be developed at a rate equal to or greater than the rate of construction of the residential area.
- 12. A maximum of 50% of the area identified as a golf course may be used towards open space.
- 13. Active open space areas must be above the 100 year flood elevation. Open space areas located below the 100 year flood elevation will not be considered active open space as they may be unusable following periods of severe weather.

## Mailbox Design

Mailbox design and location is integral to the neighborhood. Mailbox designs should be integrated within the development, in a well-lit area, near open space, and not opposite any entry drives to minimize traffic congestion. The design should reflect the same type of building materials as used throughout the neighborhood to the extent allowed by the United States Postal Service.



Figure 36: Good example of a multi-use mailbox kiosk.

## Safety

Crime Prevention Through Environmental Design, or CPTED (pronounced sep-ted), is a crime prevention philosophy based on the theory that proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime. It focuses on the positive use of a space and natural elements in order to maintain a sustainable quality of life for intended users, while offering a sense of security by increasing the difficulty for criminal or abnormal activities. The principles of CPTED - natural access control, natural surveillance, territoriality, and maintenance - when integrated with the principles of physical security, present a unique approach to minimizing crime opportunities. This may be accomplished through the design elements described in this manual.



- **Natural Surveillance**

Creating environments that allow the opportunity for people to engage in their normal behavior and to observe the space around them limits the potential for crime to occur. This is done by designing the placement of physical features and activities in such a way as to maximize visibility and foster positive social interaction among legitimate users of the space.



- **Natural Access Control**

Most criminal intruders will try to find a way into an area where they will not be easily observed. Limiting access and increasing natural surveillance keeps them out altogether or marks them as an intruder. Strategically locating entrances and exits, fencing, lighting, and landscaping in order to control or limit the flow of or access will, in turn, increase the level of natural access and control within a neighborhood.

- **Natural Territorial Reinforcement**

An environment designed to clearly delineate private space does two things. First, it creates a sense of ownership. Owners have vested interest and are more likely to challenge intruders or report them to the police. Second, the sense of ownership within a community or space creates an environment where "strangers" or "intruders" stand out and are more easily identified. By using buildings, fences, pavement, signs, lighting, and landscaping to express ownership and define public, semi-public and private spaces, natural territorial reinforcement occurs.

- **Maintenance**

CPTED and the "Broken Window Theory" suggests that one "broken window" or nuisance, if allowed to exist, will lead to others, and ultimately to the decline of an entire neighborhood. Neglected and poorly maintained properties, lighting, landscaping, or open space areas can increase the level for criminal activity.



Maintenance within a community and with each individual housing unit must be maintained at all times to include, paving surfaces, landscaping, walls, gates, entry features, light poles, play equipment, pools and ponds, signs, paint, and other related items typically found within a neighborhood.

The best time to apply this philosophy is in the design phase before a building or neighborhood is constructed. These elements can be successfully applied later, but retrofitting an existing environment can sometimes be costly. The use of CPTED standards will deter crime and reduce fear by minimizing criminal opportunity and fostering positive social interaction throughout a community.

The CPTED Theory advocates that all possibilities for natural crime prevention be exhausted prior to the involvement of the mechanical and organized strategies. The CPTED approach is much more user friendly and customer service oriented than the traditional target hardening approach. Each element below must be carefully analyzed when reviewing and designing projects and must be included and addressed with each neighborhood to ensure the safest neighborhoods for Avondale residents.

- Provide clear border definition of controlled space.
- Provide clearly marked transitional zones that indicate movement from public to semipublic to private space.
- Relocate gathering areas to locations with natural surveillance and access control or to locations away from the view of would-be offenders.
- Place safe activities in unsafe locations to promote natural surveillance of these activities to increase the perception of safety for normal users and risk for offenders.

- Re-designate the use of space to provide natural barriers to conflicting activities.
- Improve the scheduling of space to allow for effective use, to attract more people, and to increase the perception that these areas are controlled.
- Redesign or revamp space to increase the perception or reality of natural surveillance.
- Overcome distance and isolation through improved communication and design efficiencies.

When considering walls for security, they must be of substantial construction to resist vandalism and excessive deterioration, with materials and finishes as described in the Zoning Ordinance. Where not required for visual screening or noise control, walls may have decorative wrought iron fence panels that present an opening of four inches or less and are designed as an integral part of the wall. In some locations, such as between property lines and bike paths, golf courses, parks, and walkways, the use of the decorative wrought iron is encouraged to increase visual surveillance and to maintain aesthetics.



Figure 37: Play area enclosed for safety.

## Architectural Design

The requirements in this Manual promote high-quality, architectural designs that enhance the character of Avondale. The architectural style and design theme of each residential development will establish a unique neighborhood identity. Special attention must be paid to roof type, symmetry, articulation, massing, window and door treatments, building materials, colors, trim, porches, and columns.



Figure 38: Materials, color, and detail contribute to good architectural design.

Defining and establishing the character and theme of a neighborhood is addressed through many design elements as described below:

1. A minimum of three (3) distinct floor plans with a minimum of four (4) distinct elevations and six (6) different color schemes shall be provided for each designated neighborhood.
2. Developments proposing 100 lots or more shall provide additional elevations and floor plans at the City's discretion.

3. Floor plans should be provided to accommodate family types of all kinds, including plans that accommodate multi-generational families.
4. Neighborhoods south of Lower Buckeye Road should portray the southwest style and utilize forms and materials as exemplified in Figure 38, as they may be applied to varying home sizes and footprints.



Figure 39: Southwest style and contextual materials.

5. Articulate all facades, including variation in massing, roof forms, and wall planes, as well as surface articulation.



Figure 40: Facade treatments integrated into rear porch.

6. Utilize energy-efficient components and building materials in order to conserve energy and promote Avondale as a sustainable community.
7. Incorporate architectural elements and details that add visual interest, scale, and character. See *Architectural Elements and Details* below.
8. Insets or four-sided pop-outs around windows and doors along with other architectural recesses and projections to present distinctiveness are required.

### Sustainability

Energy-efficient and environmentally-conscious homes have some basic elements in common: a well-constructed and tightly sealed thermal envelope; controlled ventilation; properly-sized, high-efficiency heating and cooling systems; and energy-efficient doors, windows, and appliances. These energy efficiencies should be incorporated into the design of new buildings:

1. Consider Energy Star measures, such as a complete thermal enclosure system, a complete water management system, a complete heating, venting and cooling system, and efficient lighting and appliances when designing a home product.
2. Energy-efficient features, such as an electric solar system, solar tubes, tankless or solar water heaters, LED lighting, radiant barrier insulation systems, high-performance windows, dual flush toilets, and low-flow faucets and shower heads, should be provided or offered for all home plans.

3. Solar panels, while encouraged, shall:
  - a. Be low profile and parallel with the plane of a pitched roof to the extent feasible based upon functional needs.
  - b. Not project over the roof edge.
  - c. Match the shape and portions of the roof.



Figure 41: Example of solar panel placement.

4. Use traditional environmental design strategies, such as roofs with large overhangs for shade, trellises or deciduous trees over south-facing windows, additional windows for natural light and oriented to take advantage of airflow, building orientation, and patios and porches to buffer homes from heat gain.



Figure 42: Xeriscaping.

5. Conserve water with xeriscaping techniques in the landscape:
  - a. Design with conservation in mind.
  - b. Minimize turf areas.
  - c. Group plants by their watering needs and utilize drip irrigation.
  - d. Choose plants appropriate to the area.
  - e. Plant in soil rich with compost.
  - f. Allow plants to grow naturally and prune based on their growth habits.

## Architectural Style

Avondale neighborhoods are envisioned to be quality environments that include usable open spaces, walkable streets, and detailed landscapes. To complement this image, architecture plays a key role. No one particular design characteristic is predetermined for the entire City. However, it is creativity and variety that creates a sense of place that residents enjoy. Architectural design for home products will be reviewed to ensure that the smallest house has the same amount of effort, art, and detail as the largest house.

Five architectural “styles” have been identified by this manual:

- Spanish/Mediterranean
- Ranch
- Pueblo Revival
- Craftsman/Bungalow
- Southwestern

Although these “styles” vary and can have different interpretations, the design standards in this Manual will assist in establishing an identity that will blend together to form a diverse community. Additional styles are welcomed to add to the diversity of Avondale.



Figure 43: Spanish/Mediterranean style.



Figure 44: Pueblo Revival style.



Figure 45: Craftsman style.



Figure 46: Ranch style.

## Materials and Colors

1. Utilize high-quality, durable, natural materials. Synthetic materials are acceptable if they are sustainable products. Wood is acceptable as a trim or accent only.



Figure 47: Lintels and other acceptable wood accents.

2. Materials should not appear applied by using heavier materials as bases and ending materials on inside corners.
3. Utilize contrasting, but complimentary, colors for trim, windows, doors, and key architectural elements.



Figure 48: Color highlights the architectural expression of this home.

4. Roof materials and colors shall be consistent with the desired architectural style. The colors of natural roofing materials should be left natural and not be altered by staining or painting.
5. Provide a minimum of three (3) acceptable roof materials and three (3) different colors such as:
  - Clay tile
  - Slate tile
  - Barrel (S) tile
  - Flat concrete tile
  - Cool roof tile
6. The design, color, and materials of accessory structures shall be architecturally tied to the main structure.



Figure 49: Accessory structures create a unified property.

7. Roof materials shall exhibit earth-tone colors and be non-reflective in muted tones.
8. Metal flashing, vents, pipes, electrical panels and other exposed metal must be painted to match the color of the house.
9. Box all fireplace chimneys to avoid exposed metal flutes. Consider designing chimneys as an architectural element.

## Architectural Elements and Details



Figure 50: Vigas enhance the Southwest style of architecture.

1. Each home shall utilize six or more of the following elements to enhance the home's character:
  - Recessed or projecting balconies
  - Trellises
  - Awnings
  - Porches
  - Columns
  - Decorative doors and windows
  - Exterior moldings
  - Roof overhangs
  - Stucco
  - Masonry
  - Wood or metal accents
  - Decorative lighting
  - Ledges
  - Arched windows
  - Shutters
  - Other features as appropriate for a given architectural style, as displayed in Figure 50 above.

2. The front door or entry way of the home is required to be sited so it is clearly visible from public view to act as the home's focal point.



Figure 51: Dramatic front entry.



Figure 52: Balcony element is a defining feature.

3. Articulate windows with elements that are authentic to the architectural style of the structure. Arched, bay, projecting, transom, and clerestory windows are desirable methods of articulation.



Figure 53: Arched windows enhance a street-facing facade.

4. The primary entry and windows shall be the dominant elements of the front façade. Integrate front porches, courtyards, or other entry features that create an attractive interface with semi-public front yard areas.
5. Pillars, columns, and posts shall be architecturally enhanced with stucco, brick, stone, or other authentic materials for visual interest.
6. Patio covers shall be provided as a standard feature and shall be compatible with the architectural style of the home.



Figure 54: Well-designed patio cover.

7. Outdoor lighting at the entry areas are required as a standard feature, coach lights at garage(s) are encouraged as a standard feature to create a safe environment.



Figure 55: Various lighting techniques create attractive and safe entries.

8. For lighting exceeding 1,000 lumens, select fixtures where the source is not visible.
9. Lighting shall match the architecture of the home, and shall be fully shielded and directed downward to prevent light spill onto adjacent property and streets.

## Massing and Building Façade

1. Massing shall accentuate entries and minimize garage prominence.
2. Break the main façade of the home into 3 to 4 distinct elements, at a minimum to include the main building, a single-story element, and the roof.



Figure 56: The garage is set back behind the facade.

3. Massing, articulation, and proportion will have greater emphasis if the elements are differentiated by a change in detail, color, and/or material.



Figure 57: Massing by materials, color, and scale.

4. Surface detailing shall not serve as a substitute for well integrated and distinctive massing.
5. Corner lots shall feature either a) one-story homes or b) two-story homes that feature a one-story element adjacent to the side street.
6. Design two-story homes with a single story element placed closest to the front of the house.



Figure 58: One-story and two-story elements.

7. Avoid long, unbroken facades.

- 8. Design garage doors so they are complementary with the architectural style of the house.



Figure 59: Garage doors in concert with architectural style.

- 9. Gated entries on the side yards shall be designed with colors and materials compatible with the architecture of the home.



Figure 60: Unique side yard gate.

### Roof Articulation

- 1. Various roof forms and changes in roof plane shall be used on all elevations visible from a public street or pedestrian right-of-way.
- 2. Variation in ridgeline height and alignment should be utilized to create visual interest.
- 3. Gable roofs, which emphasize vertical proportions and create modulation, are encouraged, unless the architectural style suggests other roof variations for authenticity to the style.



Figure 61: Roof forms and solar tiles.