



city of yorba linda

# MULTI-FAMILY RESIDENTIAL DESIGN GUIDELINES

Approved by City Council  
Resolution No. 2011-5084  
October 4, 2011



CITY OF YORBA LINDA

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## ACKNOWLEDGEMENTS

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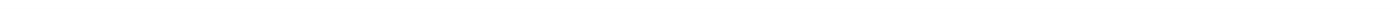
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CITY OF YORBA LINDA

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## TABLE OF CONTENTS

### Chapter 1 - Introduction

1.1	Purpose	1
1.2	Goals and Objectives	2
1.3	Intent	2
1.4	Applicability	3
1.5	General Plan Consistency	3
1.6	Use of the Design Guidelines in the Review Process	4
1.7	Other Applicable Regulations	4
1.8	Document Organization	5

### Chapter 2 - Community Character and Design Guidelines

2.1	Introduction	7
2.2	Appropriate Architectural Styles	7
2.3	Lot Layout and Site Planning	17
2.4	Buffers and Transitions	18
2.5	Privacy	19
2.6	Building Form	20
2.7	Massing	22
2.8	Scale	23
2.9	Roof Form	24
2.10	Windows and Doors	25
2.11	Materials and Colors	26
2.12	Outdoor Lighting	27
2.13	Utilitarian Aspects	28
2.14	Landscaping and Open Space	29
2.15	Garages and Accessory Structures	30
2.16	Parking	31
2.17	Amenities	33
2.18	Safety and Security	35

### Chapter 3 - Sustainability

3.1	Introduction	39
3.2	Smart Location and Linkage	40
3.3	Neighborhood Pattern and Design	40
3.4	Green Construction and Technology	41
3.5	Leadership in Energy and Environmental Design (LEED)	41
3.6	Sustainable Site Planning and Design Guidelines	42
3.7	Sustainable Building and Streetscape/Landscape Design	43



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## CHAPTER 1- INTRODUCTION

### 1.1 PURPOSE

The purpose of the Multi-Family Residential Design Guidelines is to ensure new multi-family residential development is consistent with Yorba Linda community values and character and to provide a clear set of design policies to project sponsors, such as developers, property owners, architects and designers. These are the primary design issues that City staff, the Planning Commission and City Council will use to evaluate project proposals. An important aim is to expedite the planning review process by clearly stating the community's expectations for quality design of multi-family residential development. Consistency with community character, compatibility with surrounding neighborhoods and uses, livability, and long-term viability will guide the evaluation of multi-family residential development proposals.



## 1.2 GOALS AND OBJECTIVES

The Guidelines are intended to address the following goals and objectives:

- a. Maintain a high quality of craftsmanship in development through the use of building styles, design elements and materials;
- b. Design for surrounding context and scale of urban form and land uses;
- c. Establish multi-family residential developments that are integrated and compatible with surrounding land uses and neighborhoods – both existing and future;
- d. Promote design excellence for infill and redevelopment sites;
- e. Respect and enhance the site’s natural form, view sheds, and environmental attributes;
- f. Provide for safe and secure neighborhoods;
- g. Further energy conservation and sustainability;
- h. Enhance and maintain the City’s aesthetic beauty and visual character.

## 1.3 INTENT

The Guidelines are to be used to assist developers, project applicants and City staff in producing high-quality multi-family development. City staff will use the Guidelines as a framework for evaluating development proposals and for developing recommendations regarding the design aspects of proposed projects.

The Guidelines are general and may be interpreted with some flexibility in their application to specific projects. Variations may be considered for projects with special design characteristics in order to encourage the highest level of design quality, while at the same time providing opportunity for creativity on the part of project designers. The design criteria will be used to evaluate development proposals. However, deviations from these criteria will be evaluated in terms of the goals and objectives described above. The Guidelines are intended to ensure that new development is compatible with existing neighborhoods.



## 1.4 APPLICABILITY

The Guidelines are intended to apply to all multi-family residential development proposals of more than four (4) units per acre. The way in which the Guidelines are applied, however, will vary from project to project, depending on the context associated with the proposed development site and surrounding neighborhood, and the particular components and details of any given project design. Potential multi-family sites range from smaller infill sites to larger former commercial sites, with many adjacent to existing single-family residential neighborhoods.

## 1.5 GENERAL PLAN CONSISTENCY

The values expressed in the 1993 Yorba Linda General Plan call for a high level of architectural and site design performance. Goals and policies within the Yorba Linda General Plan are furthered through establishment of the Guidelines. Relevant policies from the Land Use and Housing Element include:

- LU Policy 1.9: Permit and encourage the development of affordable housing opportunities pursuant to State Guidelines in locations adjacent to supporting services and public transportation provided they are compatible with, and will not adversely impact, the integrity and continuity of adjacent uses.
- LU Policy 3.4: Provide land use compatibility through appropriate community design and development policies.
- LU Policy 4.2: Ensure high quality community design image through the City design review process.
- LU Policy 4.5: Emphasize attractive and functional urban design in new development.
- LU Policy 5.5: Promote the development of affordable residential uses which convey a quality design and are compatible with adjacent uses in the community.
- H Policy 1.1: Preserve the character, scale and quality of established residential neighborhoods.
- H Policy 3.4: Encourage use of sustainable and green building design in new and existing housing.



## 1.6 USE OF THE DESIGN GUIDELINES IN THE REVIEW PROCESS

The purpose of multi-family residential development proposal review is to consider building design, site planning, landscaping, parking, signs and other features that affect multi-family residential development function and appearance. In examining these project features, the review process allows for evaluation of the proposed development's relationship to the project site, the surrounding neighborhood, and the community as a whole. It is the intent that future designers of multi-family residential projects use this document so that the ultimate project design reflects the desires and aesthetic tastes of the community.

These guidelines are viewed to be informational, not prescriptive. Every project proposal is unique and requires review on a case-by-case basis. This process depends upon the exercise of discretion. The review process is intended to help achieve development that strikes a balance between the sometimes-competing interests of the project applicant and the City. The City generally does not dictate particular styles of design, instead preferring to encourage creativity and variety while advocating compatibility in scale and "flavor" with the surrounding neighborhoods. The intent is that new residential developments evoke an image that is uniquely "Yorba Linda."

Although the illustrations and photographs contained the Guidelines will help the user better understand the written policies, the graphic images are not intended to dictate a particular style or design feature. Designers are encouraged to develop their own design solutions that respond to the community's values as expressed in the Guidelines.

## 1.7 OTHER APPLICABLE REGULATIONS

The Guidelines primarily address building design and site design elements. Other codes and regulations will apply. Examples include the City's Zoning Code (Municipal Code, Title 18), standard specifications and conditions, applicable building codes, California Environmental Quality Act, and the Yorba Linda General Plan.



## 1.8 DOCUMENT ORGANIZATION

This document is a compilation of design guidelines and recommendations that provide direction for new multi-family residential development. Chapter 1 provides an introduction to the intent and purpose of the guidelines. Chapter 2 provides a discussion of community character, design context, and overarching design guidelines. Chapter 3 includes a discussion and design recommendations for sustainable development.

No single architectural theme is dictated, but rather the emphasis is to promote variety. With exception of the styles provided in Chapter 2, many of the styles and patterns shown in the following pictures and graphic illustrations represent a concept of recommended building elements and details as opposed to thematic images. Caution should be exercised when considering architectural styles that have recently become popular (i.e. “trendy”) but have not yet stood the test of time. In addition, historic styles that cannot be faithfully replicated should be avoided.

This document is organized as follows:

### Chapter 1 - Introduction

Contains the purpose and goals of this document.

### Chapter 2 - Community Character and Design Guidelines

Provides an overview of the desired architectural styles and establishes comprehensive design guidelines.

### Chapter 3 - Sustainability

Includes strategies and guidelines for incorporation of sustainable design.



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## CHAPTER 2- COMMUNITY CHARACTER AND DESIGN GUIDELINES

### 2.1 INTRODUCTION

This chapter discusses the appropriate architectural styles for multi-family development and provides overarching design guidelines that apply to all multi-family residential projects.

### 2.2 APPROPRIATE ARCHITECTURAL STYLES

#### **American Farmhouse/Ranch**

This design was developed in the 1930s and became one of the most popular architectural styles in the 1950s and 1960s. The stable economy and prosperity of the decade allowed for families to move into the suburbs and purchase larger lots. This prosperity permitted the construction of a more rambling style of architecture as well as the integration of garages.

Three basic concepts of the ranch style are livability, flexibility, and an unpretentious character. Climate is used as an element of design, outdoor living areas extend beyond the house, and interior spaces merge with the exterior. Other typical characteristics include a linear arrangement of rooms, elevations composed asymmetrically, and low wings spreading out from the rectangular core of the plan. Ranch style was easily adapted for almost every building use.



### American Farmhouse/Ranch Character Elements

- Open feeling
- Subtle/simple
- Ordered/formal
- Straight lines
- Repetition and rhythm
- Defined edges
- Materials (metal, wood, rock)
- Porches



### American Farmhouse/Ranch Architectural Elements to Encourage

- Wide, horizontal forms (referring to roof forms and wall planes – roof forms and wall planes should continue to be articulated and varied)
- Wood panel facades
- Gabled roofs
- Gabled dormer
- Shutters
- Large front porches with wood railing and wood columns
- Revealed tower (square tower, 1 max.)
- Rich colors and white
- Brick/stone exterior chimneys
- Repetition of like windows
- Multiple roof planes
- Exposed roof beams
- Triangular knee brace
- Exposed rafter rails
- Square or rectangle shaped windows
- Weathervane
- Two or three rail split-rail fences should be used at gateways and along trail corridors to reinforce the farmhouse theme.





## MULTI-FAMILY DESIGN GUIDELINES

- The farmhouse theme should be reinforced by incorporating elements such as a water tower or windmill at key focal points within each neighborhood.
- The gateway planting theme should reflect a traditional farm/ranch by incorporating ordered, formal plantings reflective of an orchard.
- Materials such as metal, wood, and rock should be used in gateways.
- Equestrian amenities may be incorporated into the project.
- Homes of this style are reflective of the architecture historically found within Yorba Linda and new construction should respect this heritage.
- Compatible with the following architectural styles: Farmhouse, prairie style, barn influenced, craftsman, ranch, and contemporary ranch.



### American Farmhouse/Ranch Architectural Elements to Avoid

- Rotundas (round towers)
- Red-tile roofs
- Arches (including arched windows)
- Stucco-only front and side facades
- Hip roofs
- Keystones
- Stucco/foam embellishments
- Beige, tan, grey (subtle earth tones)
- Ornate details
- Palm trees

### American Farmhouse/Ranch Landscaping Ideas

- Orchard style plantings at gateways and entryways
- Fruit trees (non-fruit bearing where possible)
- Native grasses and flowers
- Deep green hedges/shrubs





## California Craftsman/Bungalow

Influenced by the Arts and Crafts movement, craftsman and bungalow architecture emphasizes a horizontal link between the house and the land around it. The use of natural, local materials and colors also reinforce this home-earth relationship.

### Craftsman/Bungalow Elements

- Meandering elements such as sidewalks and trails
- Canopy (trees; shade)
- Grasses
- Wildlife
- Organic/natural
- Blended edges
- Wood Siding
- Porch



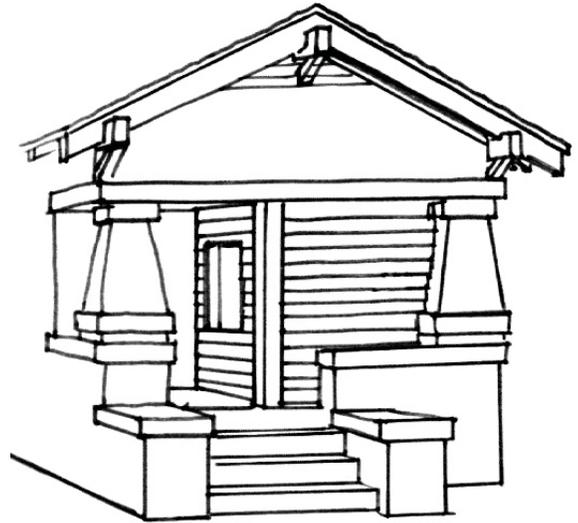
### Craftsman/Bungalow Architectural Elements to Encourage

- Wide, horizontal forms (referring to roof forms and wall planes – roof forms and wall planes should continue to be articulated and varied)
- Piled cobble stone or piled river rock
- Stone facades
- Wood panel facades
- Split wood shingles (fire proof)
- Hip roofs, porch, dormers
- Low pitched roof
- Horizontal chimney
- Projecting eaves
- Exposed rafters and beams
- Brick and quarry stone
- Picture window



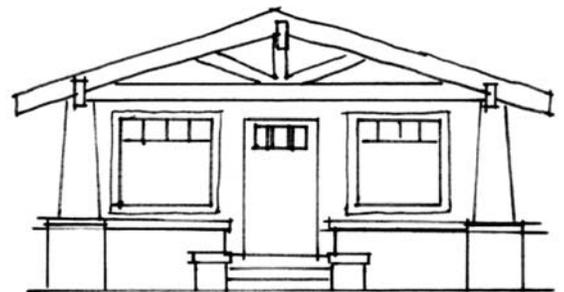


- Grouped casements (ribbon windows)
- Dwarf pier (porch columns)
- Squared bays (square bay window)
- Deep porch
- Clapboards (thin horizontal wood siding)
- Tapered or square columns supporting roof or porch
- The California craftsman theme should be reinforced by incorporating elements such as a wood trellis, stacked stone, and thematic lighting at key focal points within each neighborhood and throughout the Plan Area.
- Compatible with the following architectural styles: Craftsman, bungalow, and prairie.



### Craftsman/Bungalow Architectural Elements to Avoid

- Rotundas
- Shutters
- Red-tile roofs
- Arches (including arched windows)
- Stucco-only front and side facades
- Gabled roofs



### Craftsman/Bungalow Landscaping Ideas

- Pedestal urns
- Canopy street trees





### Mediterranean Revival

The Mediterranean Revival was an eclectic design style movement that was first introduced in the United States around the turn of the nineteenth century, and came into prominence in the 1920s and 1930s. The style evolved from rekindled interest in the Italian Renaissance architecture of palaces and seaside villas dating from the sixteenth century, and can be found predominantly in California due to the popular association of these coastal regions with Mediterranean resorts.



### Mediterranean Character Elements

- An array of rural European styles – from Southern Spain to Italy
- Elegant architecture and landscaping
- Old world style with a California twist
- Placed & ordered elements (stacked rock)
- Rock, wood, iron
- Subordinate garages
- Ornamental and deluxe details



### Mediterranean Architectural Elements to Encourage

- Red-tile roofs (regular or irregularly laid)
- Masonry arches
- Trellis treatments
- Courtyards
- Metal embellishments
- Round or square towers
- Dark wood embellishments (doors, shutters, exposed beams)
- Verandas
- Deep eaves
- Well scaled masses - broken-up walls to reduce massing



## MULTI-FAMILY DESIGN GUIDELINES

- Rough stone exterior
- Blurred boundaries between informal and formal spaces (outdoor living areas vs. indoor living areas)
- Bold earthen tones
- Awnings
- Smooth stucco
- Exposed wood
- Stacked stone
- Recessed entryway
- Recessed garage
- Arcaded wing wall
- Decorative vents
- Decorative tiles
- Multi-level roofs
- Patios
- Porticos
- Cozy sheltered spaces
- Asymmetrical shed and gable roofs
- Tall and/or narrow windows
- Loggia
- Parabolic windows
- Oversized pots for planters
- Rustic Pavers
- Use 'enhanced' elevations to support the richness associated with the Mediterranean theme.
- Compatible with the following architectural styles: Italian Countryside, French Countryside, Spanish Countryside, Spanish Villa, Moorish, Mission, Monterey, Early California, California Tuscan, Andalusian, Hacienda, Santa Barbara.





### Mediterranean Architectural Elements to Avoid

- Wood shingles
- Brick
- Wood siding
- Metal
- Foam and stucco embellishments

### Mediterranean Landscaping Ideas

- Cypress trees (residential and gateways)
- Olive trees (residential and gateways)
- Oversized pots for fountains and planters
- Palm trees
- Yorba Linda multi-family residential developments will reflect an upscale community through the use of enhanced gateways and superior landscaping
- The Mediterranean theme should be carried throughout the development by including formal plantings at gateways, landscaped corridors, and at focal points.





## Colonial Revival

The Colonial Revival style became popular in the late nineteenth century. It draws its inspiration from Georgian Colonial architecture. Buildings of this type have strictly symmetrical facades and are usually rectangular in plan with no or minimum projections. Eaves have classical detailing. Windows are usually double-hung sash except when Palladian windows are used for accent.

### Colonial Revival Character Elements

- Symmetrical facade
- Elaborate front doors with crown pediments and overhead fanlights and sidelights
- Simple, classical detailing
- Multiple columned porches and doors
- Side porches or sunrooms
- Rectangular
- Center entry-hall floor plan
- Fireplaces



### Colonial Revival Architectural Elements to Encourage

- Brick or wood siding
- Gable roof
- Dormers
- Symmetrically located windows on either side of the front entrance
- Pillars and columns
- Multi-pane, double hung windows with shutters
- Elevated front entry



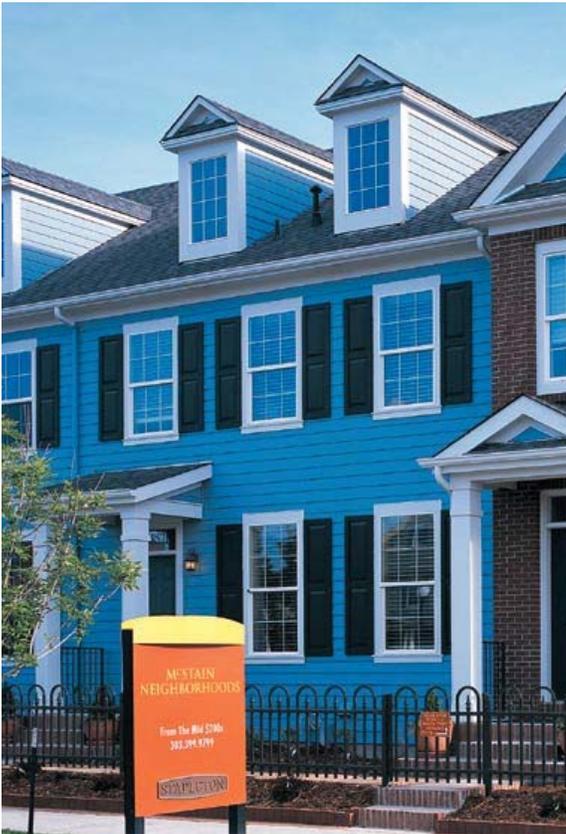


### Colonial Revival Architectural Elements to Avoid

- Stucco siding
- Second story protrusions
- Awnings

### Colonial Revival Landscaping Ideas

- Formal/groomed plantings
- Canopy trees
- Flower beds

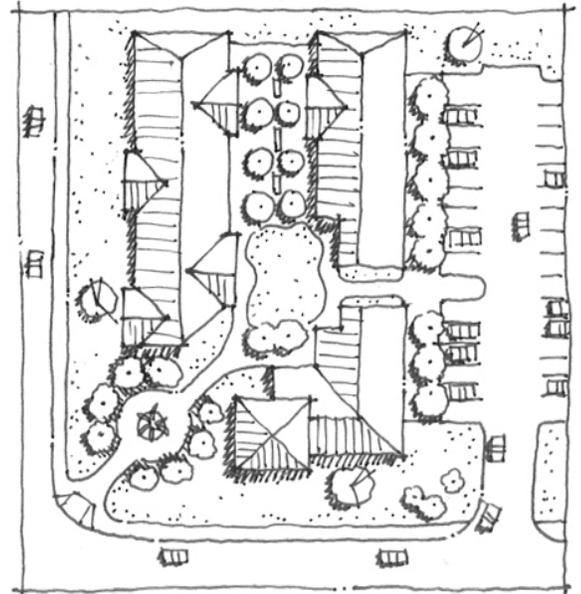




## 2.3 LOT LAYOUT AND SITE PLANNING

A multi-family residential development should unify the styles and character of the surrounding community. The location of these areas should be in walking distance to parks, commercial centers, and public facilities.

- a. Residential developments should provide a variety of architectural styles complementary to each other to provide a diverse neighborhood atmosphere.
- b. A variety of one, two, and three bedroom dwelling units should be provided to encourage a variety of product types. Units should be mixed throughout the development.
- c. Units should front streets and common areas to increase visual surveillance of public streets, parks, and open spaces within the neighborhood.
- d. For attached products, the principal vehicular access into a project should be through an entry drive rather than a parking drive. Colored, textured, and permeable paving treatment at entry drives is encouraged.
- e. Each residential community should provide open space with at least 400 square feet per unit, which may be used in a shared open space area.
- f. The site area adjacent to the street should not be dominated with parking. Parking should be concentrated in areas behind buildings, and away from the street when possible.
- g. Pedestrian linkages to nearby neighborhoods, schools, parks, commercial projects, and parking areas should be provided. Linkages should be ADA compatible.
- h. All residences shall be located to minimize the distance between parking areas and residential units.
- i. The design of multi-family developments should consider compatibility with the surrounding neighborhood by mimicking existing architectural styles, colors, and rhythm.
- j. Dwellings should incorporate porches, trellises, landscaping, and other features to extend the living area toward the street and soften the transition between the street and the dwelling. When placed correctly, these elements can also provide shading.





- k. Natural amenities such as views, mature trees, creeks, riparian corridors, and similar features unique to the site should be preserved.
- l. Where possible, utilize courtyards or other methods to break up the building mass and provide natural ventilation.
- m. Building placement should not limit solar access by shading adjacent rooftops.
- n. Orient buildings on an east/west axis to maximize the use of natural daylighting and solar panels.
- o. Narrow floor plan depths should be used to maximize daylight, exterior views, and natural ventilation. Use a courtyard atria to bring light and air into interior spaces.
- p. In consultation with OCTA, determine if a bus stop/turnout is necessary adjacent to new multi-family development.
- q. Accoustical and noise attenuation issues should be considered during the design process.

## 2.4 BUFFERS AND TRANSITIONS

Most land uses can be compatible when adjacent uses are taken into consideration during the design process. The use of visual buffers, such as setbacks, landscaping, walls, berms or a combination thereof, assist in creating a transition between land uses.

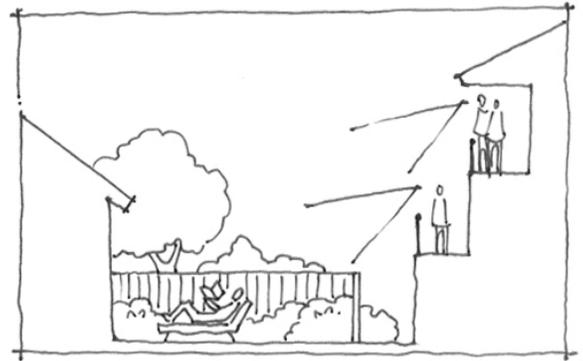
- a. Where multi-family residential uses are adjacent to single-family residential development, the placement of buffers, buildings, and parking should be carefully examined.
- b. Buffers should be incorporated between development and sensitive environmental areas, significant habitats, and important riparian corridors.
- c. Structures with greater height should include additional setbacks and steps within the massing to create a transition in heights from adjacent properties and to avoid dominating the character of the neighborhood.
- d. Elevations of proposed pad areas shall match the elevations of existing adjacent residential pads surrounding the site to the extent feasible. The goal is to achieve a smooth transition in grade from existing projects to new developments and to be sensitive to surrounding land uses, view sheds, and privacy issues.



- e. When adjacent to single-story residential zone, the entire building shall be setback an additional five (5) feet for two story structures and ten (10) feet for three or more story structures.

## 2.5 PRIVACY

The plotting of homes should avoid the placement of two, two-story elements directly adjacent to one another. Wherever possible, two-story elements should be adjacent to single story homes or single story elements. If this cannot be achieved in a given situation, additional side yard separation and/or additional front setbacks shall be required to alleviate a row-house effect, and provide greater privacy



- a. Dwellings built on lots without direct frontage on the public street should be situated to respect the privacy of abutting homes and to create usable yard space for the dwelling(s).
- b. Landscaping of a size and type consistent with the development will be provided to enhance the streetscape and enhance privacy for dwellings.
- c. Windows on walls adjacent to a neighbor's home should be offset to prevent direct views into neighbor's windows, with specific attention to new second floor windows that look into windows, pools, spas, etc. on adjacent properties.
- d. Balconies and decks should avoid direct sight lines to neighbor's windows or livable outdoor areas.
- e. Use clerestory windows or translucent glass to interrupt direct sight lines to neighbor's windows and livable outdoor spaces.
- f. Use landscaping or garden features, where appropriate, to provide a buffer or screening between properties.
- g. Recess or enclose second-story balconies and decks on three sides.
- h. Use solid or translucent materials or walls for balcony or deck railings.
- i. The use of large blank walls as a result of trying to address privacy concerns is not acceptable.





*Architectural features such as balconies, wood detailing, and color scheme should be used to complement the building design.*



*Attached units can uniquely provide varying architectural style and details as to appear as separate units while still remaining part of the whole building.*



*Corner elements such as towers call attention to the buildings entrance and provides visual interest.*

## 2.6 BUILDING FORM

The design of residential neighborhoods should minimize large block housing and encourage porches, articulated entries, and recessed garages to decrease visual dominance along the street.

- a. Multi-family units shall be designed and detailed to correlate with the neighboring single-family detached and/or attached homes, and commercial centers. The architecture should incorporate the best features of the neighboring units.
- b. A variety of architectural styles and types can create a vibrant streetscape, allowing for deviation in building heights, massing, setbacks, and architectural elevations and floor plans.
- c. Building facades should provide various setbacks utilizing different materials to minimize singular planes on all sides of the building. Varying setbacks should be between two (2) feet and three (3) feet.
- d. Architectural features such as porches, balconies, chimneys, door placement, window proportions, dormers, wood detailing, fencing, siding, and color scheme shall be used to compliment the overall building design, site and neighborhood context.
- e. A variety of architectural details, elevations, and setbacks create visual interest to homes, and one design should not be repeated more frequently than every fourth house.
- f. A variety of horizontal and vertical changes in the architectural treatment help reduce monotony of dwelling units.
- g. A variety of architectural styles found within the City of Yorba Linda should be provided to reflect the overall character of the community.
- h. Orient design to incorporate a relationship between indoor and outdoor spaces.
- i. Attached units can uniquely provide varying architectural style and details as to appear as separate units while still remaining part of the whole building.



## MULTI-FAMILY DESIGN GUIDELINES

- j. Simple, clean, bold projections of stairways should be used to complement the architectural massing and form of multi-family structures. Stairways should be constructed of smooth stucco, plaster, or wood with accent trim of complimentary colors. Thin looking, open metal, prefabricated stairs are discouraged.
- k. To the extent possible, each unit should be individually recognizable. Methods to break up massing could include:
- Vary front setbacks within same structure.
  - Stagger and jog unit planes.
  - Design a maximum of two adjacent units with identical wall and roof lines.
  - Vary building orientations to avoid the monotony and long garage door corridors.
- l. When adjacent to public streets, all foundations should be raised with a minimum of two feet (2'0") crawl space. Raised houses with parking underneath should utilize stucco or brick masonry veneers with appropriate detailing on foundation wall surfaces below the main floor of the house. Slab on grade foundations will generally not be permitted except for garages, patios, and unheated rear porches and patios.



*Foundations and/or front entries should be elevated.*



*Wallplanes should vary.*



*Image by Weber Thompson*

*Building projections and recessions are encouraged.*



*A variety of architectural styles and varying roof forms make these units appear as if separate and unique.*



*Massing should be broken up by varying wall planes.*



*A combination of two and three story units were used to create visual interest and variation to the building massing.*

## 2.7 MASSING

Mass is defined as a three-dimensional form, such as a cube, box, cylinder, pyramid, or cone. The way the forms are sized directly relates to the way building elements are emphasized or de-emphasized. Voids or open spaces in the forms can change the form's appearance and make the building more interesting and less imposing.

- a. Large projects should be broken up into groups of structures of various heights.
- b. Several smaller, compact building footprints, rather than one large building, should be used to provide an intimate scale and a more efficient envelope for optimizing daylighting and passive solar heating and cooling functions.
- c. Buildings designs should include a combination of the following techniques:
  - Variation in the wall plane (projecting and recessed elements).
  - Variation in wall height.
  - Roofs located at different levels.
- d. Combinations of one, one and one half, and two story units should be used to create visual interest and variation in the massing and building height.
- e. Where appropriate, the upper stories of new multi-family buildings should be stepped back to reduce the scale of facades that face the street, courtyards, or open space areas.
- f. Structures with greater height should include additional setbacks and steps within the massing to create a transition in heights from adjacent properties and to avoid dominating the character of the neighborhood.
- g. Vertical elements such as towers may be used to accent horizontal massing and provide visual interest.



## 2.8 SCALE

Scale is the proportion of one object to another. “Human” or “intimate” scale incorporates building and landscape elements that are modest in size. “Monumental” scale incorporates large or grand building elements. The individual components of the building also have relationships to each other and to the building as a whole, which contributes to the overall scale of a building.

- Building scale should be reduced through the proper use of window patterns, structural bays, roof overhangs, wall materials, awnings, moldings, fixtures, and other details.
- Architectural details and materials on lower walls that relate to human scale such as arches, trellises, or awnings should be utilized.
- Window distribution and shape can be a significant building scale determinant.



*The utilization of dormers on the third story helps to improve the street level scale of the building.*



*Multi-family residential projects should use varied roof forms to prevent a box-like appearance.*



*Varied roof pitches increases the visual quality of the building.*



*Roof forms help to define individual units.*

## 2.9 ROOF FORM

Roofs should reflect a residential appearance through roof pitch and material selection.

- a. A variety of roof planes and accent details increases the visual quality and character of a building.
- b. Varied roof pitches, porches, and overhangs provide visual interest and increase the architectural character of the dwelling unit, while reducing the bulk and size of the structure.
- c. A variety of roof tiles and colors consistent with the architectural style of the home help enhance the diversity and character of the community.
- d. Upper stories should be set back with a variety of roof lines and pitches throughout the project, including side-gabled, cross-gabled, combined hipped-and-gabled or hipped roofs.
- e. Roofs covering the entire building such as hips and gables are preferred over mansard roofs. Segmented pitched roofs should be applied at the building edge.
- f. Roofing colors shall be soft earth tones to minimize reflective glare and visual impacts.



## 2.10 WINDOWS AND DOORS

Windows and doors help to define the architectural style of a building while providing daylight to interior spaces and visual interest to building facades. These features may be accented through the use of awnings.

- a. Entries should be enhanced by the architectural style and details of the building.
- b. Windows should be articulated with accent trim, sills, kickers, shutters, window flower boxes, balconies, awnings, or trellises authentic to the architectural style of the building.
- c. Shutters should be proportional to the window and complement the architectural style of the building.
- d. Awnings and overhangs may be appropriate for some building styles.
- e. Entries and porches should be inviting and architecturally articulated at a pedestrian scale.
- f. Garage, windows, doors, and porches should complement the architectural style of the building.
- g. Covered porches, porticos, and other significant entry features compatible with the architectural style of the dwelling are encouraged in Yorba Linda to create an elegant arrival sequence and perspective from the public street. Columns, handrails, exterior trim, cornices, window detailing, exterior lighting fixtures, front door and surround, and other architectural elements must be compatible with the style of the dwelling. Columns on front porches should be a minimum of 10 inches in width/diameter with appropriate base and cap detailing.



*Front entrances should be enhanced by stoops or porches.*



*Windows should be framed with trim and shutters where architecturally compatible.*



*Heavier and darker colors should be used at the base of the building.*



*Elements such as stone and wood that are architecturally compatible should be used.*



*Exterior facade colors should be harmonious.*

## 2.11 MATERIALS AND COLORS

The selection and placement of building materials should provide visual interest at the pedestrian level. Heavier materials should be used to form the building base and as accents on upper stories and walls. Materials and colors should be used to enhance buildings and adjacent pedestrian spaces by adding color, shadows, and interesting forms.

- a. A variety of materials and colors help create a consistent style and character for a neighborhood, while accentuating details and key features.
- b. A variety of building materials - such as stone, brick, wood siding, and stucco - should be utilized to enhance the building's architectural character.
- c. Heavier and darker materials should be used at the base of the building, allowing lighter materials to remain on top.
- d. Material changes should occur at intersecting planes, preferably at inside corners of changing wall planes or where architectural elements intersect such as a chimney, pilaster, projection, or fence line.
- e. Colors used on exterior facades should be harmonious. Contrasting colors are encouraged to accentuate details such as trim, windows, doors, and key architectural elements.
- f. Color schemes involving a maximum of four (4) colors are recommended.
- g. Materials and articulation used on the front façade will be incorporated into the sides and rear facades where visible from a street or paseo.
- h. Exterior wall materials, trim and architectural details shall be provided on all elevations. All elevations exposed to public right-of-way shall be architecturally enhanced.
- i. Coordinate color and finishes on exteriors of all elevations to provide a total continuity of design. Colors should reflect the community character and theme.
- j. Reflective materials shall be avoided on elevations that face existing single-family homes.
- k. Color and material schemes that complement the existing neighborhood should be utilized.



## 2.12 OUTDOOR LIGHTING

Effective lighting provides safety and direction for vehicles and pedestrians while enhancing architectural building and landscape details. These guidelines apply to on-site lighting for parking areas and lights associated with the building in private development projects. Light types may include pole lights, spotlighting, wall-mounted sconces, parking lighting, and landscape lighting.

- a. Light fixtures should be designed or selected to be architecturally compatible with the main structure or theme of the development.
- b. The intensity of light, level of light as measured in footcandles, and the type of bulb or source should be carefully addressed. Lighting levels should not be so intense as to draw attention or become a nuisance.
- c. Spotlighting or glare from any site lighting should be shielded from adjacent properties and directed at a specific object or target area.
- d. Exterior lighting such as decorative wall sconces, eye mounted spotlights, landscape lighting, etc are acceptable if positioned so as not to create glare or spill over onto an adjacent lot. Lot owners are encouraged to significantly reduce exterior lighting levels after 12:00 a.m.
- e. Exposed bulbs should not be used. Cut-off lighting is preferred.
- f. Uplighting of building elements and trees should use the lowest wattage possible to minimize impacts to the night sky. Light sources for wall washing and tree lighting should be hidden.
- g. Where landscaping is lit, low-voltage lighting should be used whenever possible to conserve energy. Energy efficient lamps and ballasts, controlled by photoelectric methods or timers, should be incorporated.
- h. The height of a light pole should be appropriate in scale for the building or the complex and the surrounding area.
- i. Accent lighting should be used to illuminate walkways, entries, seating areas, and/or specimen plants and trees.
- j. Walkways and paseos should be lit to an average of one and one half to two footcandles in intensity to ensure safe nighttime conditions.
- k. Use renewable energy sources for lighting, such as solar microturbine.
- l. Recreational amenities and courtyards should be well lit to enhance the pedestrian experience and create a safe environment.
- m. Light poles should be designed with downward facing fixtures to eliminate light spill.



*Light fixtures should be selected to be architecturally compatible with the main structure.*



*Downward shining lighting is encouraged.*



*Common mailbox enclosures should be similarly designed in form, materials, and color to the surrounding buildings.*



*Mailbox design and placement should be considered during project layout and development.*



*Trash enclosure areas should incorporate a trellis or other screening feature and shall be enclosed by 6-foot high walls constructed of materials consistent with the architectural style of the units.*

## 2.13 UTILITARIAN ASPECTS

All utilitarian equipment and features should be integrated into the site plan and should either be aesthetically screened from view or designed to complement the architectural style of the project. Utility service areas should be part of the early site design process, rather than an afterthought at the construction document phase.

- a. Landscaping, screens, or aesthetic walls should minimize impact of trash cans and mechanical enclosures.
- b. Any equipment, whether on the side of structure, or ground, should be screened. The method of screening should be architecturally compatible in terms of materials, color, shape, and size. The screening design should blend with the building design, which may include a continuous screen.
- c. Trash enclosure areas should incorporate a trellis or other screening feature and shall be enclosed by 6-foot high walls constructed of materials consistent with the architectural style of the units. Trash enclosures shall be screened from upper level unit views.
- d. Trash enclosures should include separate access for pedestrians.
- e. All utility and mechanical equipment shall be screened from view. Roof mounted air conditioners, coolers or antennas are prohibited.
- f. Common mailbox enclosures should be similarly designed in form, materials, and color to the surrounding buildings.
- g. Air conditioning and heating equipment must be located in the side yard or rear yard of a lot and be visually screened from view from the public street. Screening should extend from existing grade to the top of the equipment. Acceptable screening materials include brick masonry, painted wood lattice, or evergreen plant materials.



## 2.14 LANDSCAPING AND OPEN SPACE

Plants should be used to define building entrances, parking lots, and the edges of various land uses. Plants should also be used to buffer and screen neighboring properties. Consider safety, environmental impacts, and accent elements when selecting and locating landscaping features.

### Landscaping and Open Space Design

It is envisioned that streets within the Community will provide ample shade for residents to enjoy walking to local parks and commercial centers.

- a. Each first floor dwelling unit shall provide a minimum of 100 square feet of private outdoor space where possible.
- b. Each upper floor dwelling unit shall provide a minimum of 50 square feet of private outdoor space.
- c. Within the right of way of local streets, a landscaped parkway and street trees shall provide a separation between vehicle and pedestrian circulation patterns.
- d. Buildings and lots shall be oriented to increase accessibility to trails and open space.
- e. Private open space should be enclosed with walls, landscaping, fences, trellises, etc., but must be complementary to the architectural style of the building.
- f. Street trees shall be provided along the street edge and along driveways to reduce heat and provide shade for pedestrian thoroughfare. Refer to City approved Tree List for appropriate species.
- g. Each attached home builder parcel shall include common recreation facilities such as pools, spas, club houses, management offices, barbecues, and others facilities appropriate to the area.
- h. All community elements must complement the style and character of the neighborhood.
- i. Public spaces which require visibility shall use transparent or permeable screens.



*Common open space*



*Landscape/Irrigation equipment should be screened or covered. Fake boulder shown.*



*Landscaped common space*



*Detached garages and carports should be architecturally consistent with the main structure.*



*Rear/alley loaded garages.*



*Parking court style garages.*

- j. Within all required landscaped areas, an automatic water efficient irrigation system shall be installed upon initial construction of any building or substantial alteration to any building or site.
- k. Low-water use plantings shall be utilized to the extent possible.
- l. Environmental factors, such as noise, may affect the design and placement of outdoor amenities.

## 2.15 GARAGES AND ACCESSORY STRUCTURES

- a. Garages, carports, and other accessory structures should be designed as integral parts of the development.
- b. Garages and parking areas should be located to have the least amount of visual impact on the street.
- c. When viewed from the street, garages should be subordinate to the main living area. Where possible, the garage should be recessed behind the dwelling unit and not located between the main living area and the street.
- d. Garage doors should be recessed into, rather than flush with, the exterior wall.
- e. Detached garages and accessory structures should be designed as an integral part of the architecture of the project and should be similar in materials, color, and detail to the principal structures of a development.
- f. Detached garages, carports, and accessory structures should incorporate roof slopes and materials similar to the principal structures of a development. Flat roofs are prohibited.
- g. Carport columns shall include architectural features and be a minimum of 24 inches wide at the base. The architectural treatment shall extend vertically for a minimum of 36 inches.



## 2.16 PARKING

Site plans should balance the need to provide adequate vehicular access with the need to eliminate unnecessary driveway entrances and should provide access points that are coordinated with other properties.

### Parking Design

- a. Parking shall be provided and located behind residential units to maintain the visual appearance of the street character. Appropriate screening shall be provided if parking is in view of the street.
- b. Parking shall be landscaped and screened from adjoining uses and public streets.
- c. Where feasible, parking should be conveniently located in smaller parking areas or parking courts dispersed throughout the site.
- d. Large parking areas should be avoided to decrease their dominance on the landscape.
- e. Parking should be distributed and in close proximity to individual residential units.
- f. Guest and unassigned parking shall be provided.
- g. Where feasible, provide “tuck-under” parking.
- h. The end of parking rows shall be capped with landscaped medians, except where space is restricted because of existing site conditions.
- i. Parking areas and entry drives are encouraged to incorporate permeable materials to allow for groundwater recharge.
- j. Provide adequate parking on-site to minimize off-site impacts to surrounding neighborhoods and streets.

### Parking Lot Area Screening

- a. Screening should be provided at the edge of all parking areas.
- b. A landscaping buffer should be provided between parking areas and public rights-of-way. The landscaped buffer area should not be included when calculating the minimum five percent landscaping within the parking lot interior. This buffer should be designed to provide stormwater retention through swales, sumps, etc.



*Parking area located behind the building away from the street.*



*Tuck-under parking.*



*Cluster homes with parking court.*



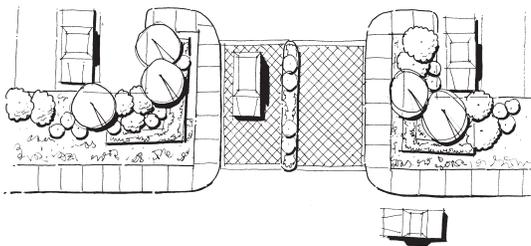
- c. A 36-inch to 42-inch high berm, headlight hedge, or masonry wall should be used to screen any parking at the street periphery. Breaks should be provided to allow pedestrian circulation. A combination of walls, berms, and landscape material is highly recommended.
- d. Where topography allows, parking lots could also be located above or below the adjacent street grade to effectively screen parking without the addition of substantial screen walls or landscaping.
- e. Parking lots graded at least 48-inches below the adjacent street grade will effectively be screened without the addition of a 36-inch to 42-inch high wall or landscaping, but the hillside should still be landscaped.
- f. Both sides of all perimeter walls or fences should be architecturally treated. Walls should be finished and designed to complement the surrounding development. Long expanses of fence or wall surfaces should be offset and architecturally designed to prevent monotony. Landscape pockets should be provided.



*Entry drive with landscaping.*

### Entry Drives

- a. Easily identifiable and aesthetically pleasing entrances designed to complement the style of the project should be provided.
- b. The principal vehicular access into a multi-family housing project should be through an entry drive rather than a parking drive. Colored, textured, and/or permeable paving treatments at entry drives are encouraged.
- c. A combination of the following accent features shall be incorporated into the project entry:
  - Ornamental landscaping.
  - Landscaped medians (minimum seven feet measured from outside of curb face to outside of curb face).
  - Water features.
  - Architectural monuments.
  - Decorative walls.
  - Enhanced paving (colored, textured, and/or permeable).
- d. Project entry features should reflect the overall architectural identity or character of the development.
- e. Driveway entries should align with existing or planned median openings and adjacent driveways.
- f. The number of site access points should be minimized.



*Plan view entry drive with landscaping and median.*



## 2.17 AMENITIES

In conjunction with the open space requirements, all multi-family projects shall provide two or more amenities for the residents as listed below. The extent of amenities provided on-site should be proportionate in scale and number with the proposed project. Amenities shall be centrally located for a majority of residents. Outdoor play amenities should be for a range of ages (for example, a tot lot would not be sufficient if the project would have many teenagers and no park is nearby).

Compliance with this guideline will be evaluated on a case-by-case basis as part of City project review process with the intent of establishing a selection or combination of amenities that will contribute to the residential quality of life for each project.

- Tot lot/play structure
- Community garden
- Picnic tables and BBQ areas (preferably with shade structures)
- Swimming pool
- Indoor recreation/athletic facility
- Sports court (e.g., tennis, basketball, volleyball)
- Natural open space area with benches/viewing areas and/or trails
- Media room (equipped with big screen TV, etc. for group activities)
- Community room with warming kitchen
- Common library (probably suitable for senior project only)
- Craft /hobby room
- Bicycle storage room and/or bike racks
- Resident storage lockers/cages (this also avoids unsightly storage on patios and balconies)
- Recycling room (separate from trash dumpsters)
- Other passive and/or active recreation area that meets the intent of this guideline



*Tot-lot/playground*



*Clubhouse/rec center/mail room*



*Swimming pool and clubhouse*



## CITY OF YORBA LINDA

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*Outdoor seating and BBQ area*



*Tennis courts*



*Homeowner garden plot*

As previously stated, the number, type and size of amenities should be proportional to the anticipated number of residents and representative of the anticipated needs of future residents. For example, a senior housing complex may not benefit from development of a tot lot and an apartment project located in close proximity to a community park may not benefit from a duplication of park amenities.

Common facilities such as laundries, mailboxes, and management offices should be centrally and conveniently located for accessibility and proximity to the majority of the residents.

Opportunities for resident support and betterment should be integrated as a project amenity, including uses such as:

- On-site computer lab/learning center
- Child care
- Adult day care
- Social service provider office space/counseling rooms
- On-site health clinic/services



Image by Weber Thompson

## 2.18 SAFETY AND SECURITY

Crime Prevention Through Environmental Design (CPTED) strategies rely upon the ability to influence offender decisions that precede criminal acts. The four most common built environment strategies are natural surveillance, natural access control, natural territorial reinforcement, and maintenance.

Natural surveillance and access control strategies limit the opportunity for crime. Territorial reinforcement promotes social control through a variety of measures.

### Natural Surveillance

Natural surveillance increases the threat of apprehension by taking steps to increase the perception that people can be seen. Natural surveillance occurs by designing the placement of physical features, activities and people in such a way as to maximize visibility and foster positive social interaction among legitimate users of private and public space. Potential offenders feel increased scrutiny and limitations on their escape routes.

- Place windows overlooking sidewalks and parking lots.
- Leave window shades open.
- Use passing vehicular traffic as a surveillance asset.
- Create landscape designs that provide surveillance, especially in proximity to designated points of entry and opportunistic points of entry.
- Use the shortest, least sight-limiting fence appropriate for the situation.
- Use transparent weather vestibules at building entrances.



*Windows and porches oriented towards common spaces*

- When creating lighting design, avoid poorly placed lights that create blind-spots for potential observers and miss critical areas. Ensure potential problem areas are well-lit: pathways, stairs, entrances/exits, parking areas, ATMs, phone kiosks, mailboxes, bus stops, children’s play areas, recreation areas, pools, laundry rooms, storage areas, dumpster and recycling areas, etc.
- Avoid too-bright security lighting that creates blinding glare and/or deep shadows, hindering the view for potential observers. Eyes adapt to night lighting and have trouble adjusting to severe lighting disparities. Using lower intensity lights often requires more fixtures.
- Use shielded or cut-off luminaires to control glare.
- Place lighting along pathways and other pedestrian-use areas at proper heights for lighting the faces of the people in the space (and to identify the faces of potential attackers).

### Natural Access Control

Natural access control limits the opportunity for crime by taking steps to clearly differentiate between public space and private space. By selectively placing entrances and exits, fencing, lighting and landscape to limit access or control flow, natural access control occurs.

- Use a single, clearly identifiable, point of entry.
- Use structures to divert persons to reception areas.
- Use low, thorny bushes beneath ground level windows.
- Eliminate design features that provide access to roofs or upper levels.
- In the front yard, use waist-level, picket-type fencing along residential property lines to control access, encourage surveillance.
- Use a locking gate between front and backyards.
- Use shoulder-level, open-type fencing along lateral residential property lines between side yards and extending to between back yards. They should be sufficiently unencumbered with landscaping to promote social interaction between neighbors.
- Use substantial, high, closed fencing (for example, masonry) between a backyard and a public alley.



*Night lighting*



## Natural Territorial Reinforcement

Territorial reinforcement promotes social control through increased definition of space and improved proprietary concern. An environment designed to clearly delineate private space does two things. First, it creates a sense of ownership. Owners have a vested interest and are more likely to challenge intruders or report them to the police. Second, the sense of owned space creates an environment where “strangers” or “intruders” stand out and are more easily identified. By using buildings, fences, pavement, signs, lighting and landscape to express ownership and define public, semi-public and private space, natural territorial reinforcement occurs. Additionally, these objectives can be achieved by assignment of space to designated users in previously unassigned locations.

- Maintained premises and landscaping such that it communicates an alert and active presence occupying the space.
- Provide trees in residential areas. Research results indicate that, contrary to traditional views within the law enforcement community, outdoor residential spaces with more trees are seen as significantly more attractive, more safe, and more likely to be used than similar spaces without trees.
- Restrict private activities to defined private areas.
- Display security system signage at access points.
- Cyclone fencing and razor-wire fence topping are prohibited, as it communicates the absence of a physical presence and a reduced risk of being detected.
- Placing amenities such as seating or refreshments in common areas in a commercial or institutional setting helps to attract larger numbers of desired users.
- Scheduling activities in common areas increases proper use, attracts more people and increases the perception that these areas are controlled.



*Security signage*



## Maintenance

Maintenance is an expression of ownership of property. Deterioration indicates less control by the intended users of a site and indicate a greater tolerance of disorder. The Broken Windows Theory is a valuable tool in understanding the importance of maintenance in deterring crime. Broken Windows theory proponents support a zero tolerance approach to property maintenance, observing that the presence of a broken window will entice vandals to break more windows in the vicinity. The sooner broken windows are fixed, the less likely it is that such vandalism will occur in the future.



*Image by Weber Thompson*

## CHAPTER 3- SUSTAINABILITY

### 3.1 INTRODUCTION

Sustainable design refers to design and construction practices that significantly reduce or eliminate the negative impacts of development on the environment and its inhabitants. A sustainable design approach can be defined by a variety of green building practices and the availability of pedestrian-oriented amenities. The essential components that make up a successful sustainable development have been identified by the US Green Building Council through the emergence of their latest neighborhood program. LEED-ND (Leadership for Energy and Environmental Design for Neighborhood Development) has been developed as a tool to gauge the effectiveness of neighborhood design principles. The program recognizes that the layout and design of the built environment influences the way residents and visitors experience a neighborhood, and it can impact their quality of life and sense of community.

The following sustainable principles are derived from the LEED ND criteria developed by the USGBC, and were customized to fit Yorba Linda. The guidelines in the following sections include more specific objectives aimed at meeting the following criteria.



*Walkable neighborhood*

## 3.2 SMART LOCATION AND LINKAGE

- a. Encourage development within and near existing neighborhoods or public transportation infrastructure to reduce vehicle trips and induce pedestrian activity.
- b. Promote neighborhoods that are physically connected to each other to foster community and connectedness beyond one individual project.
- c. Minimize erosion to protect habitat and reduce stress on natural water systems.
- d. Design parking to increase the pedestrian orientation of projects and minimize the adverse environmental effects of parking lots (locate parking lots at the side or rear of buildings leaving building frontages and streetscapes free of parking lots).

## 3.3 NEIGHBORHOOD PATTERN AND DESIGN

- a. Incorporate high levels of internal connectivity and connections to surrounding development to promote a variety of travel options.
- b. Provide direct and safe connections for pedestrians, bicyclists, and drivers to key components of a project, local destinations, and neighborhood centers.
- c. Encourage the design and construction of buildings to utilize green building practices.
- d. Encourage the design and construction of energy efficient buildings to reduce air, water, and land pollution and environmental impacts from energy production and consumption.
- e. Preserve existing tree canopy, native vegetation, and pervious surfaces.



### 3.4 GREEN CONSTRUCTION AND TECHNOLOGY

- a. Reduce the impact of heat islands by providing shade structures and trees that can produce large canopies to provide shade. In addition, choose roof and paving materials that possess a high level of solar reflectivity. Refer to City approved Tree List for appropriate species.
- b. Achieve enhanced energy efficiency by creating the optimum conditions for the use of passive and active solar strategies.
- c. Use recycled building materials whenever possible.
- d. Minimize light trespass from site, reduce sky-glow to increase night sky access, improve nighttime visibility through glare reduction, and reduce development impact on nocturnal environment.
- e. As new energy technology emerges, residential projects should incorporate installation hook-ups that are architecturally integrated with the main structure.



Rain barrel

### 3.5 LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED)

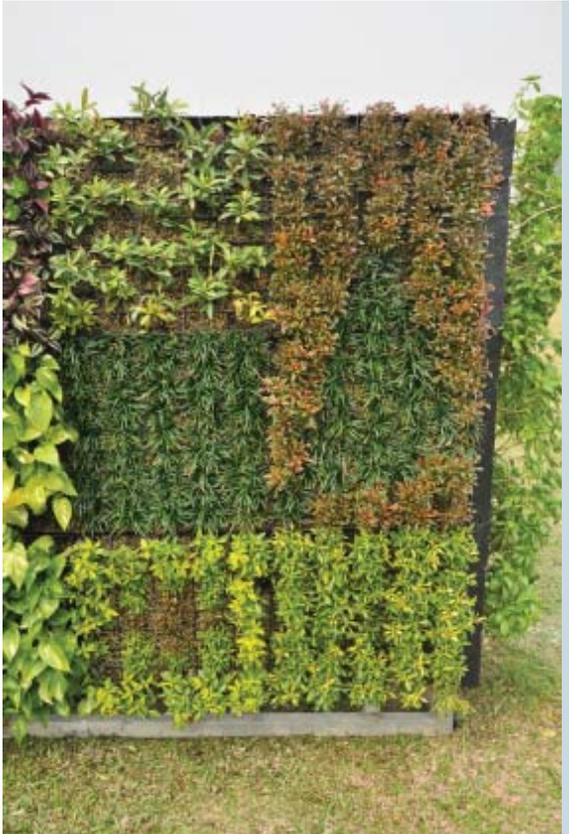
LEED is a voluntary, consensus-based, market-driven green building rating system and evaluates environmental performance from a “whole building” perspective. LEED is a self-certifying system and contains prerequisites and credits in five categories. There are four rating levels: Certified, Silver, Gold, and Platinum. The intent of a LEED certified building is to create a great built environment, providing the highest level possible of operational efficiency, as well as comfort and support for building tenants and visitors.

#### LEED Project Recommendations:

- a. Multi-family developments should strive to achieve LEED certification. Projects are subject to local green building programs upon adoption.
- b. Multi-family developments should integrate building materials and methods that promote environmental quality, economic vitality, and social benefit through the construction and operation of the built environment.



Solar panel



*Vegetated wall*



*Permeable paving*

- c. Sustainability should be incorporated into the earliest design discussions with a sustainable design charrette to kick-off the project to insure that all design and construction team members are familiar with sustainability concepts and basic sustainable building practices. The result should be utilized to develop a scheme describing the specific approach and method to accomplish achieving LEED certification.

### 3.6 SUSTAINABLE SITE PLANNING AND DESIGN GUIDELINES

An integral first step in the planning process for a project should include a site survey and constraints analysis to determine the existing conditions of the site. Proximity between the site and surrounding uses, existing drainage patterns, visual corridors, and other specific constraints and opportunities should be identified. To result in a low impact development, building footprints, location, and orientation should be designed efficiently.

Potential project environmental impacts related to site planning include:

- Site Disturbance
- Impact to Surrounding Uses
- Storm Water Drainage

#### Sustainable Site Planning Guidelines

- a. Reduce pollution from construction activities by controlling soil erosion, waterway sedimentation and airborne dust generation.
- b. Minimize the impact of light pollution through the use and placement of appropriate lighting technology.
- c. Building placement should be sensitive to site topography and should be integrated seamlessly with minimal impact.
- d. Through site and building design, consider the use of building roofs, parking lots, and other horizontal surfaces to convey water to either distribute it into the ground or collect it for reuse.
- e. Vegetated roofs should be designed to blend into the existing character of the neighborhood. In some instances the roof may need to be screened from public view.



## MULTI-FAMILY DESIGN GUIDELINES

- f. Site drainage should be designed integrating a decentralized system that distributes storm water across a project site to replenish groundwater supplies. In addition, various devices that filter water and infiltrate water into the ground should be considered.
- g. The project site should be designed to maintain natural storm water flows by promoting infiltration. Techniques and materials such as vegetated roofs, pervious paving, and other measures to minimize impervious surfaces are encouraged. Storm water should be reused for non-potable uses such as landscape irrigation.
- h. Impervious paving should be minimized, increasing on-site infiltration, and reducing or eliminating pollution from storm water runoff and contaminants.
- i. Constructed surfaces on the site should be shaded with landscape features and utilize high-reflectance materials and other materials to reduce the heat absorption of hardscape.
- j. Limit the use of lawn areas to conserve water and reduce energy consumption.



*Permeable pavers and bio-swale*



*Permeable pavers at parking spaces*

### 3.7 SUSTAINABLE BUILDING AND STREETScape/LANDSCAPE DESIGN

A soil analysis should be performed to determine the appropriate plant material. The landscape should be designed with native or adapted plants to reduce or eliminate irrigation requirements. Stormwater and/or greywater should be used for irrigation.

#### Potential Project Impact Related to Building Design

- Material and Energy Consumption
- Impact on the City's Water System
- Light Pollution

The design of multi-family projects can directly impact sustainability in the following areas:

- Materials consumption
- Energy and water consumption
- Light pollution
- Heat build-up and spillover



*Bio-swale*



*Bio-swale*



*Drip irrigation*

## Sustainable Building and Streetscape/Landscape Guidelines

- a. Identify opportunities to incorporate salvaged materials into building design and research potential material suppliers. Consider salvaged materials such as beams and posts, flooring, paneling, doors and frames, brick and decorative items.
- b. Consider using rapidly renewable materials such as bamboo, wool, cotton insulation, agrifiber, linoleum, wheatboard, strawboard and cork.
- c. Design buildings to maximize interior daylighting and provide for a connection between indoor spaces and the outdoors. Strategies to consider include building orientation, exterior and interior permanent shading devices, and high performance glazing.
- d. Limit the use of potable water, or other natural surface or subsurface water resources available on or near the project site, for landscape irrigation.
- e. California friendly landscaping is encouraged. Plant selection should be based on the climate and environment of the area as well as site characteristics such as exposure, light intensity, soil analysis, site drainage, and irrigation. Proper plant selection based on site characteristics should enhance the plants' likelihood of becoming established in the site and reduce potential incidences of low vigor, excessive maintenance, disease, or death. Native species are preferred for natural landscapes.
- f. "Green" and "cool" roofs should be promoted as an efficient method to reducing glare and heat build up on roof tops. In addition beyond the obvious aesthetic benefits of Green roofs are also valuable for their ability to absorb rain water and reduce runoff.
- g. A subsurface irrigation system should be employed at community common areas to help irrigate that area and reduce water demand. The system will also help capture storm water and reduce runoff while irrigating the landscaping.
- h. "Urban bio-swales" should be used along the roads that travel through the community where soil type supports recharging. The bio-swales will help capture stormwater and irrigate landscaping in the planting strips.



## MULTI-FAMILY DESIGN GUIDELINES

- i. To reduce the heat island effect, the project area should be adequately landscaped to provide shade and protect surfaces including sidewalks, driveways, parking lots, and exterior walls. Where appropriate, plant deciduous trees on the south and west sides of buildings to provide protection from the summer sun. In the winter months, these trees lose their leaves and allow sunlight to provide passive heating and light;
- j. In an effort to control energy consumption, it is recommended that solar panels be integrated on roof tops.
- k. Low water demand fixtures are encouraged for use throughout the community. Dual flush toilets and waterless urinals are viable alternatives to promote water efficiency.
- l. Use energy efficient lighting wherever possible.



*Tree-lined streets provide shade to cool pedestrians and homes*

## CASE STUDY - SOLARA APARTMENTS POWAY, CA

Community Housing Works, a non-profit developer, have constructed the first apartment complex in California that is fully powered by the sun. Nationally awarded as a pioneering sustainable community, the California Energy Commission recognizes this as the first Zero Energy New Home.

The project takes advantage of the inland sunny climate with buildings sited for maximum solar exposure. The architecture recalls Poway's rural roots and early California heritage with the use of traditional and contemporary forms. The design includes public art, interactive recreational activities, low-water landscaping and a community center that provides learning opportunities for residents to reinforce the ideas of cost savings through recycling, solar energy awareness and use of existing environmental technologies.





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