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DRAFT

I. SINGLE-FAMILY RESIDENTIAL DEVELOPMENT

A. Site Design

1. Overall Site Planning

a. Environmentally Sensitive Site Design *(I.A.1.a)*

Intent – Design subdivisions to minimize disturbance to the natural environment and reduce infrastructure costs.

Implementation Methods:

1. Prepare an environmental assessment of the site for use in the site design.
2. Cluster development on areas of the site with the least environmental impact.
3. Environmentally sensitive areas of the site should be identified, fenced off and protected during any on-site development.
4. Link Natural Undisturbed Open Space (NUOS) to adjacent NUOS or environmentally sensitive areas.
5. Minimize wash crossings and locate them at the narrowest points along the wash.
6. Locate and orient buildings to maintain views of mountain peaks and other scenic resources available from existing residences and roadways.
7. Incorporate and retain features of the natural environment such as watercourses, associated vegetation, mature specimen trees, topographical features, significant slopes, and rock outcroppings.

b. Design in Context *(I.A.1.b)*

Intent – Design new subdivisions that respond to neighborhood context and enhance a sense of place.

Implementation Methods:

1. Design subdivisions that are compatible with, or transition to, the scale, mass, and architecture of adjacent neighborhoods.
2. Involve neighbors early in the design process and incorporate, if possible, the neighborhood recommendations that enhance compatibility.
3. To protect solar access and minimize afternoon solar exposure, streets should be predominantly oriented in an east/west direction.

c. Innovative Subdivision Design and Lot Layout *(I.A.1.c)*

Intent – Encourage innovation and variety in site design and lot layout in order to add visual interest and character to the streetscape, increase the overall appeal of the subdivision, and encourage pedestrian-oriented activity.

Implementation Methods:

1. In subdivisions containing twenty or more lots, provide a mixture of lot sizes.
2. Front homes onto existing local streets to integrate with surrounding neighborhood fabric and utilize land more efficiently.
3. Vary lot widths and building side setbacks to provide for usable side yards.
4. Vary front yard setbacks to avoid monotony.
5. Maintain significant views through street layout, open space, and/or building orientation.

d. Site Layout for Visibility and Security *(I.A.1.d)*
Intent – Provide a safer subdivision by adhering to "Safe by Design" criteria.
Implementation Methods:

1. Locate common areas, recreation areas, and tot lots to maximize visibility by placing them in central locations within the subdivision, orienting houses to face them, and using view fences, rather than solid walls, where side and rear yards abut such areas.
2. Include front porches and balconies to put "eyes on the street."
3. Discourage the use of screening (landscaping, fences, and screen walls) that blocks visibility and makes two-way surveillance of common areas difficult.
4. Provide lighting for trails and bike paths at an appropriate scale.
5. Design mid-block pedestrian connections within subdivisions for a high degree of visibility and sufficient space for landscaping.

2. Open Space and Common Areas

a. Common Areas and Open Space within Subdivisions *(I.A.2.a)*
Intent – Integrate usable common areas and open space into subdivisions.
Implementation Methods:

1. Develop plans with strategically placed open space that provides residents with safe and convenient passive and active recreational opportunities.
2. Orient open space areas so that they are visible and easily accessible for all residents.
3. Provide pedestrian and bicycle paths that connect open space areas within and outside the subdivision. Refer to the City of Tucson Parks and Recreation Strategic Plan and the Eastern Pima County Trail System Master Plan as the bases for connections to recreational and natural trail networks.

b. Detention/Retention Basins *(I.A.2.b)*
Intent - Design detention/retention basins for multiple uses, such as open space and recreation.
Implementation Methods:

1. Design watercourses and detention/retention basins as functional open space that can accommodate both passive and active recreation.
2. Incorporate the Multiple-Use Concepts and Aesthetic Design Guidelines in Chapter IV of the Stormwater Detention/Retention Manual.

3. Design moderate side slopes (4:1 maximum) to assure accessibility, and avoid rip rap and other materials that inhibit access.
4. Use ground cover, plants, and other materials appropriate for intended uses.

c. Outdoor Recreation Areas *(I.A.2.c)*
Intent – Outdoor activity areas should be accessible and include improvements that accommodate the residents of the subdivision.
Implementation Methods:

1. A range of parks, from tot lots to ballfields, with outdoor recreational amenities, such as ramadas, benches, turf areas, and play equipment, should be distributed throughout the subdivision and properly scaled to satisfy residents' needs.
2. Disperse outdoor recreation areas and children's play areas throughout the subdivision so that they are highly visible and easily accessible for all residents.
3. Provide thorn-free shade trees in and around outdoor recreation areas.

3. Pedestrian and Alternative Travel Modes

a. Pedestrian and Bike Access within Subdivisions *(I.A.3.b)*
Intent - Encourage pedestrian and bike access throughout the subdivision.
Implementation Methods:

1. Create visual and pedestrian connections within the subdivision.
2. Include mid-block paths and connections to create more convenient and direct routes to destinations.
3. Provide pedestrian and bicycle paths between areas where there are limited or no vehicular connections.
4. Provide sufficient width along sidewalks, paths, and trails to accommodate landscaping, and to provide visibility and freedom of movement.

b. Pedestrian and Bike Access at Perimeter of Subdivisions *(I.A.3.b)*
Intent - Encourage pedestrian and bike access from the subdivision to adjacent public rights-of-way, trails, and nearby schools, other public facilities, and neighborhood commercial developments.
Implementation Methods:

1. Create pedestrian and bicycle connections with off-site destinations.
2. Provide convenient and inviting points of access at the project's perimeter to allow appropriate pedestrian and bicycle short cuts based on the site context and adjacent development.
3. Enhance access points along perimeter walls with design details (color, texture, decorative features, etc.), landscaping, and security lighting.
4. Provide access points with sufficient width to accommodate landscaping, and to provide visibility and freedom of movement.

c. Transit Opportunities *(I.A.3.c)*
Intent - Encourage transit use where service exists, and support transit-ready design where future service is possible.
Implementation Methods:

1. Provide safe, convenient, and direct routes between the subdivision and existing or planned transit facilities.
2. Provide transit facility enhancements such as pullouts, shade structures, seating, and landscaping, where subdivisions abut an existing or future route or facility.

d. Accessibility *(I.A.3.d)*

Intent – Design circulation systems, common areas, individual lots, and buildings to be usable by people of all abilities.

Implementation Methods:

1. Minimize obstacles, excessive height transitions, and unnecessary grade changes along routes, pathways, and sidewalks.
2. Provide direct routes that minimize distances between destinations.
3. Provide ample space to accommodate users of all abilities, minimizing hazards and anticipating and allowing for user error.
4. Create easily understandable environments that are simple to navigate and use, and incorporate highly visible paths and clear signage.

4. Vehicular Circulation and Parking

a. Streets within Subdivisions *(I.A.4.a)*

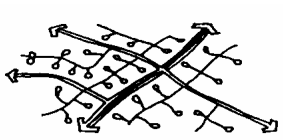
Intent - Promote the most efficient and economical vehicular, bicycle, and pedestrian circulation within new subdivisions with convenient access to neighborhood facilities.

Implementation Methods:

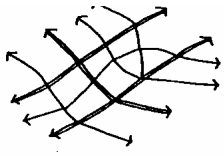
1. Use appropriate traffic calming devices, such as: street trees and landscaping; textured pedestrian crossings; narrow streets; traffic circles; curb extensions; chokers and neck-downs; and parking on both sides of the street.
2. Design street system without loop roads and cul-de-sacs unless they are necessary to avoid wash or ridge crossings or other environmentally sensitive areas. When necessary, loop roads and cul-de-sacs should be limited to a maximum distance of 600-feet.
3. Provide a hierarchy of streets within the subdivision. This hierarchy should consist of Neighborhood Collectors and Local Streets. Neighborhood Collectors provide connections between the subdivision and its immediate surroundings, and include pedestrian and bicycle amenities, such as bike lanes, wide sidewalks, and enhanced landscaping, and provide alternate routes to surrounding destinations for residents. Local Streets provide direct access to residences and internal routes to neighborhood amenities such as parks, open space, and recreation facilities.
4. Lay out streets in new residential areas in a modified grid pattern, where appropriate, to discourage non-local through traffic and avoid creating nuisance shortcuts.
5.
6. Include wildlife crossings where appropriate.
7. A portion of the required visitor parking can be on-street if on-street parking adds to the urban street character, improves pedestrian and bicycle safety, or is compatible with the neighborhood parking patterns.

b. Relationship between New and Existing Streets *(I.A.4.b)*

Intent - Maintain direct and efficient connections with the larger community while minimizing interruptions to traffic flow on arterial streets.



AVOID



ENCOURAGE

Related Policy Link - CCD Policy 4(4.1C; 4.3); LU Policy 3 (3.9; 3.10)

Implementation Methods:

1. Connect new local streets with existing local streets and arterials, using grid or modified grid patterns to create direct routes to nearby destinations.

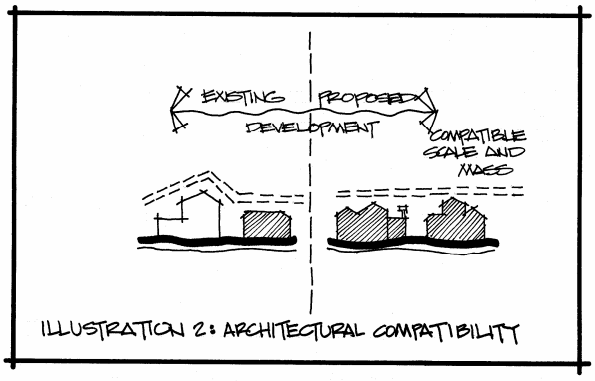
2. Minimize interruptions to arterial traffic flow and disperse vehicular traffic by limiting access points and curb cuts.
3. Include pedestrian and bicycle access where vehicular connections are not provided.

B. Architectural Design

1. Overall Design Context

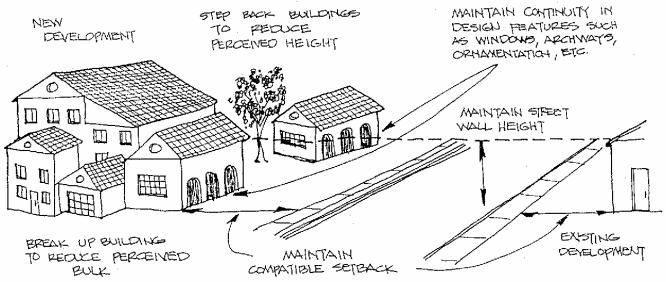
a. Design Context and Neighborhood Character *(I.B.1.a)*

Intent – New residential subdivisions should reflect the distinctive character of Tucson as a unique southwest city and the defining elements of existing neighborhoods.



Implementation Methods:

1. Observe traditional or prevailing setbacks and building orientation where they exist.
2. Use building massing and height that express the neighborhood scale, especially along edges and streetscapes, to provide a transition to adjacent development.
3. Visually harmonize new subdivisions with adjacent residential neighborhoods by repeating characteristic design elements, such as form, scale, pattern, color, material, and texture.
4. Limit building height to one story where new subdivisions abut existing single story development.



b. Sonoran Desert Context, Energy Conservation, and Green Building *(I.B.1.b)*

Intent – New residential subdivisions should respond to the context of the Sonoran Desert, incorporating energy efficiency and conservation.

Implementation Methods:

1. Consider traditional approaches to building in arid regions, such as: solar orientation; passive heating, cooling, and ventilation; thermal massing; and the use of shade, including awnings, verandas, ramadas, deeply recessed windows, and landscaping.
2. Orient buildings to respond to solar heat gain, and reduce reflectivity and glare by using architectural shading devices such as pronounced eaves, fin walls and/or covered walkways, and low reflective materials.
3. Use building elements, materials, and textures associated with the desert environment.
4. Incorporate outdoor living spaces and opportunities, such as patios, courtyards, and roof decks. Consider the impact of solar orientation prior in the siting of such areas. Spaces having a southern or western orientation should incorporate landscape and architectural shading.
5. Consider using the LEED (Leadership in Energy and Environmental Design) Green Building Rating System when designing buildings.

6. Integrate solar panels and other energy conservation equipment into the overall design of the buildings, or screen when possible.

2. Architectural Elements

a. Primary Façades/Front Elevations in Subdivisions *(I.B.2.a)*
Intent – Encourage an attractive streetscape and higher quality housing by varying front elevations within subdivisions.
Implementation Methods:

1. Vary front elevations to assure that no two homes with the same elevation and the same color schemes will be adjacent to one another.
2. Provide variety of features that help orient the house to the street, such as: front porches, courtyards, or balconies: rear-loaded or recessed garages; and front doors and windows facing the street.
3. Avoid tall, unarticulated exposures for two-story units, particularly along front and rear building elevations.

b. Secondary Elevations/Rear and Side Facades (I.B.2.b)
Intent - Provide architecture that is visually interesting from all sides for all homes in a subdivision, and vary building placement and façade treatment, especially when adjacent to a major street.
Related Policy Link - CCD Policy 5(5.6); LU Policy 3 (3.9)
Implementation Methods:

1. Vary building and site orientation, rear and side setbacks, and architectural features and elements, such as façade treatments, window placement, and detailing, to create visual interest.
2. Design side and rear building facades with attention to architectural detail comparable to the front façade. This is particularly important if rear and side facades are visible from streets or adjacent properties.

c. Garage Placement (I.B.2.c)
Intent – Minimize the dominance of the garage and emphasize the front entry of the home to enhance neighborhood streetscapes.
Related Policy Link:
Implementation Methods:

1. Provide a mix of recessed, detached, side-loaded, angled, in-line (tandem), or rear loaded garages to create variety.
2. Vary garage placement (setback) from the front property line by recessing garages from living areas, and providing side entry garages at corner lots.
3. Minimize blank garage doors and walls by incorporating glass block, windows, raised or recessed panels, and/or architectural trim.
4. Use shared driveways among clustered units.

5. Provide a mix of driveway orientations including, but not limited to circular, angled, crescent, or elbow.

d. Roof and Parapet Design, Roof Lines, and Rooftop Equipment (I.B.2.d)
Intent - Encourage a high quality and visually interesting roof horizon. Encourage the design of roofs and parapet walls for functional uses and aesthetic screening of mechanical equipment on rooftops.
Implementation Methods:

1. Create a variety of rooflines along collector streets and arterials by varying building mass, height, and form, and providing a minimum of 4 houses of separation between similar building forms.
2. Provide roof features and parapets that complement the character of adjoining neighborhoods.
3. Vary roof lines and surfaces, especially where building heights exceed 20 feet, in order to reduce the apparent scale of the structure.
4. In subdivisions with predominantly flat roof forms, incorporate roof elevation offsets, pop-ups, parapet offsets, and other massing effects to reduce monotony.
5. Use three-dimensional cornice treatments, parapet wall details, overhanging eaves, and other techniques to enhance architectural character.
6. Screen mechanical equipment from adjacent views through ground placement, parapets, or other design features.

C. Landscape Design and Screening

1. Landscape Design

a. Sonoran Desert Landscape Character *(I.C.1.a)*
Intent - Promote tree planting and other landscaping that reflects the Sonoran Desert environment as a means to moderate climate, decrease urban heat build up, add to home energy efficiency, and enhance the visual character of subdivisions.
Related Policy Link –
Implementation Methods:

1. Offer prospective homebuyers a variety of front yard landscape packages from the native or drought tolerant plant list that include canopy trees, accent plants, shrubs, and ground cover
2. Provide automated irrigation system to all landscaped areas.
3. All landscaping (except areas enclosed by rear yard walls), including automated irrigation systems, shall be installed by the Builder/Developer during the residence's original construction stage.

b. Water Harvesting *(I.C.1.b)*
Intent - Conserve water resources and preserve drainage patterns, thereby reducing engineering and irrigation costs.
Implementation Methods: -

1. Incorporate the water-harvesting principles and techniques in the City of Tucson Waster Harvesting Guidance Manual

(March 2003), to direct all excess runoff into landscaped common areas prior to discharging in retention areas or adjacent washes.
2. Use reclaimed water for irrigation whenever possible.
3. Increase visual interest and promote water harvesting by incorporating rocks and boulders, earthen berms, and grading treatments.

c. Placement of Trees *(I.C.1.c)*

Intent - Provide a pleasant microclimate for pedestrians and increase the aesthetic appeal of the subdivision and adjacent streets.

Implementation Methods:

1. Provide trees for accent and visual interest, with spacing determined by the requirements of the tree species, the mature canopy, and the context.
2. Locate trees along streets, sidewalks, walkways, and pedestrian paths to provide shade for pedestrians, with spacing that will form a continuous canopy along at least one side of the street or walkway.
3. Cluster trees at plaza areas, common areas, or other public gathering places.

d. Plant Materials *(I.C.1.d)*

Intent - Provide landscape continuity, appropriate to the site context, using predominantly xeriscape plants and minimal irrigation.

Implementation Methods:

1. Select "primary" and "secondary" trees from the City's drought tolerant plant list to create a varied but unified landscape design.
2. Provide accent plants at entryways, intersections of roads, etc.
3. Use trees, shrubs, and ground cover that display an assortment of form, texture, color, and seasonal variety.

e. Planting for Visibility and Security *(I.C.1.e)*

Intent - Select and position plant materials to maintain visibility within common areas and around buildings.

Implementation Methods:

1. Maintain tree canopies near buildings, along walkways, and in common areas and playgrounds at least six feet from the base of the trunk, and plant larger specimens in those locations.
2. Integrate free-standing entry and monument signs into the overall landscape plan so they are not obscured when plants reach maturity.

2. Screening and Buffering

a. Screening *(I.C.2.a)*

Intent - Use landscape, grading, and walls to screen unattractive uses.

Implementation Methods:

1. Screen trash and recycling collection areas, outside storage, utility, other free-standing equipment, and water pumping stations by integrating them into the design of the subdivision, using minimum six-foot-high masonry walls, and incorporating other materials that are consistent with those used throughout the subdivision.

b. Mitigating Impacts of Free-standing Walls *(I.C.2.b)*

Intent – Reduce the impact of freestanding walls over 75 feet long and over 3 feet high and increase their visual appeal.

Implementation Methods:

1. Where perimeter walls abut designated open areas, common areas, and trail systems, the masonry portion of the wall is not to exceed three feet in height, except for pillars, with wrought iron or other similar open fencing materials on top.
2. Break up long wall expanses with contrasting elements and materials, such as pilasters, columns, and decorative caps.
3. Use two or more decorative materials, such as tile, stone, or brick and/or incorporate a visually interesting design on the wall surface.
4. Use graffiti-resistant paint or materials on all walls visible from a public right-of-way.

D. Signage and Lighting

1. Street Numbers

d. Visibility of Street Numbers *(I.D.1.d)*

Intent - Aid the general public and emergency services in safely locating residences.

Implementation Methods:

1. Ensure street numbers are clearly visible from public rights of way by choosing a suitable size, location, and style of numeral.
2. Address numbers should be conspicuously placed near the residence entry.
3. Consider painting numbers on rooftops if they are not visible from neighboring properties.

2. Lighting

a. Illumination Levels *(I.D.2.a)*

Intent - Light levels and sources should be carefully chosen to satisfy the needs of utility, decoration, and security.

Implementation Methods:

1. Prevent over-illumination and glare, and avoid insufficient or uneven illumination, especially in areas where there may be conflicts between pedestrians and vehicles.
2. In residential subdivisions provide down-shielded or low-pressure sodium lighting, as close to the ground as possible.
3. In pedestrian areas, streets, and parking areas use metal-halide light sources for the visual comfort of pedestrians.
4. In pedestrian areas and crosswalks or other areas where pedestrians and vehicles meet, overlap light sources at about seven feet to give even coverage and visual recognition of pedestrians.