

**Comments from
Chuck Martin**

2-11.0.0 LANDSCAPE PLAN REQUIREMENTS¹⁶

2-11.1.0	PURPOSE
2-11.2.0	APPLICABILITY
2-11.3.0	FORMAT
2-11.4.0	CONTENT

2-11.1.0 **PURPOSE.** This Standard specifies means to demonstrate compliance with UDC Section ~~3-7.0~~, Landscaping and Screening ~~Regulations~~.

2-11.2.0 **APPLICABILITY.** A landscape plan is required to be submitted with all applications for land development, with certain exceptions as noted in UDC Section ~~3-7.1.2~~. Any change in design or land use requires a new review and approval process for the landscape plan. Certificates of Occupancy will not be issued, nor will the building be occupied, until the landscaping on the site meets the approved landscape plan criteria.

2-11.3.0 **FORMAT REQUIREMENTS.** The landscape plan shall:

- 3.1 Be on a 24" x 36" sheet(s) folded to the 8.5" x 11" format shown in Exhibit I;
- 3.2 Have a two (2) inch margin on the left side and one-half (1/2) inch margins on the remaining sides to comply with standardization requirements of state law for recorded plats;
- 3.3 Be drawn to a scale of no smaller than one inch equals forty (40) feet; and,
- 3.4 All lettering and dimensions shall be 3/32 inch or greater in size.

2-11.4.0 **CONTENT REQUIREMENTS.** The landscape plan shall include the following:

4.1 Identification and Descriptive Data. Identification and descriptive data is required on the Landscape Plan in accordance with Section 2-06.0.0, Development Package.

4.2 Proposed Landscape and Screening Improvements. Landscape plans submitted for review do not necessarily have to be complete working drawings ready for contractual work. However, all required landscaping and screening will be clearly shown in sufficient detail as to readily convey the intent to comply. Plans will include a planting plan, an irrigation plan, a grading plan, and construction details, each with applicable legend, key, symbols, sizes, quantities, and notes.

The following information must be provided on the plans. Information may be combined on one (1) sheet if the combination of information does not obscure other details.

A. **Planting Plan**

1. **Vegetation Plan and Schedules**

- a. The location of individual plants one (1) gallon or larger in size and areas to be seeded, turfed, or planted from flats;

¹⁶ Text from Development Standard 2-07.

- b. Sizes of plants indicated in boxes, gallon cans, or flats or by height (palms), number of canes (ocotillo), or number of pads (opuntia);
- c. Ultimate size of plants indicated by the spread of canopy, circumference of shrubs, or spread of ground cover;
- d. Both the proper and common name of each type of plant material. They should be included for any proposed seed list, if applicable;
- e. Location, size, and name of existing vegetation to remain in place;
- f. The location of oasis allowance area; and,
- g. Material and areas of inert ground cover.

2. *Calculations.*

- a. Square footage of the site;
- b. Square footage of the oasis allowance area and calculation;
- c. Square footage of the vehicular use area; number of parking spaces, including the required and provided parking space calculations; and the calculation of the required number of canopy trees;
- d. A shadow pattern and calculation are required in certain cases (see Sec. ~~3.7.2.3.A~~ of the UDC). Provide these, if applicable;
- e. Minimum width and square footage measured from the inside edge of tree planters in vehicular use areas;
- f. Length and width of landscape borders and landscape transition borders and number of canopy trees per length; and,
- g. Square footage of all landscaped borders and calculation of the percentage of vegetative coverage, when applicable.

3. *Screening*

- a. Location of screening elements;
- b. Height of screening material and reference point for measurement;
- c. Nature of screening material (e.g., permanent or temporary as in phased development); and,
- d. Type of screening material (e.g., masonry wall, wood fence, species of plant material).

4. *Maintenance Schedule*

- a. Pruning schedules to show that plant material will maintain pedestrian and vehicular clearances or that the material will establish opaque hedge screens, if required;
- b. Replacement criteria, should plant material not survive;
- c. Replacement or upkeep maintenance schedules for inert ground cover materials;
- d. Upkeep maintenance schedules for exterior hardscape materials; and,
- e. Maintenance and replacement schedules for irrigation systems.

B. Grading Information

1. Grade changes across the site indicated by one (1) foot interval contour lines or by spot elevations;
2. Percent slope across the site and the direction of the slope of paved areas;
3. Existing grades on adjacent rights-of-way and adjacent sites. If an adjacent right-of-way or site is under construction, show the proposed finish grades;
4. Extent of grading boundaries if a portion of the site is to be kept in its natural undisturbed state. Indicate natural contours of undisturbed areas;
5. Areas of detention/retention, depths of basins, and percentage of side slope;
6. The methods by which water harvesting or storm water runoff is used to benefit the oasis allowance area and other planting areas on the site; and,
7. Percent side slope of berms.

C. Irrigation Plan

1. Type of water conserving irrigation systems proposed and differentiation between systems for the different water use zones on the site;
2. Source of irrigation water;
3. Indicate potable or reclaimed water use. Reclaimed water system specifications, if used;
4. System specifications, design, and layout (Technical Manual Section X ~~Development Standard~~ 2-05.5.4.A and 2-05.5.4.B);
5. Extent of supplementary irrigation in each planting area, provided by water harvesting methods;

6. Point of drainage off roof areas, amount of flow, and disposition of flow;
7. Temporary systems proposed to establish native seeded areas;
8. The length of irrigation duration (e.g., for native plant material, automatic drip for two [2] years or until established); and,
9. The extent to which systems are proposed within the public right-of-way.

D. *Construction Details*

1. Materials and methods used to construct landscape planters;
2. Materials and methods used to construct plant guards and water diverters, such as curbs, bollards, or walls;
3. Materials and amounts necessary for inert ground cover;
4. Outdoor light fixtures;
5. Street furniture, outdoor art/sculpture, and water features;
6. Materials used for walkways and paving;
7. Grills or tree grates; and,
8. Planting details, method of caliche penetration, soil amendments, mulch cover, staking methods, and root barriers, if used.

E. *Additional Information*

1. Purpose and location of utility easements and facilities; and,
2. Locations of existing solar collectors on adjacent property.

? TEXT FROM 2-07.3.0 LANDSCAPE PLAN APPROVAL ?

- c. Functional Open Space shall be conveniently located to and usable by the maximum number of the residential units on the site.
- d. To the greatest extent possible, Functional Open Space should not be comprised of remnant areas that are not usable by residents of the FLD project.
- e. Where the project is located near a public preserve, or can provide connections to open space areas or areas of environmentally or culturally significant features, the open space shall be configured in a manner to preserve this connectivity.

3. Natural Undisturbed Open Space (NUOS)¹²

- a. NUOS areas include environmentally significant features (as identified in the Environmental Resource Zone; Hillside Development Zone; and, Watercourse Amenities, Safety and Habitat zone); culturally significant features (features eligible for National Register status as identified during the cultural resource assessment process); designated floodplains (except where channelized); and other features identified during the FLD site design plan process.
- b. NUOS areas shall remain unimproved and permanently conserved with the following exceptions:
 - (1) Trails are permitted in NUOS areas and may count toward meeting Functional Open Space requirements.
 - (2) Infrastructure is permitted in NUOS areas when connectivity of services is required or cannot be achieved elsewhere on the site outside the NUOS area using design techniques that minimize the impact on the NUOS, such as limiting crossings and borings.

ARE THESE BEING RELOCATED?

G. Detention and Retention Basins¹³

- 1. To the greatest degree practicable, detention and retention basins within an FLD shall be designed as Functional Open Space by incorporating the Multiple-Use Concepts and Aesthetic Design Guidelines described in Chapter IV of the Stormwater Detention/Retention Manual, and in accordance with Section 7.6.6.C, Stormwater Runoff. Functional Open Space amenities within detention and retention basins may count toward meeting Functional Open Space requirements.
- 2. Detention and retention basins shall be:
 - a. Located in a common area, outside the boundaries of a residential lot;
 - b. Owned and maintained by the homeowners organization or management organization established by the developer;

¹² The NUOS and Detention/Retention Basin provisions apply to all development that have NUOS and detention/retention basins and can be relocated to Article 7 (Development Standards) or the Technical Standards Manual where it will have more general applicability.

¹³ The NUOS and Detention/Retention Basin provisions apply to all development that have NUOS and detention/retention basins and can be relocated to Article 7 (Development Standards) or the Technical Standards Manual where it will have more general applicability.

1. Streets within the FLD site for which on-street parking is proposed shall be designed with parking lanes that comply with Section 10-01.0.0, *Street Technical Standards*, of the Technical Standards Manual. 2.4
2. An alley abutting an existing development shall not be used for parking access.
3. Common parking areas shall meet the following requirements:
 - a. No more than 60 parking spaces may be located in any single outdoor parking area;
 - b. There shall be a minimum of 30 ft. separation between common parking areas. Common parking areas shall be separated by a building or landscaping;
 - c. The same parking area access lane (PAAL) may provide access to two or more parking areas; and,
 - d. Curbed areas shall provide openings to allow water to flow into landscaped areas and water harvesting basins.

J. Circulation and Connectivity

1. The right-of-way and pavement widths for internal ways, common parking areas, streets, roads, or other means of vehicular circulation and for surface drainage serving the FLD shall be in accordance with Section 10-01.0.0, *Street Technical Standards*, of the Technical Standards Manual and Section 7.4.6, *Motor Vehicle Use Area Criteria*, of the UDC.
2. All elements of an FLD, including residential units and recreational amenities, shall be connected by a pedestrian circulation system.
3. Interior pedestrian sidewalks shall connect to sidewalks on abutting streets and to abutting commercial and recreational facilities with adjacent property owner's consent.
4. Bus turn-out lanes and bus waiting shelters shall be provided if requested by the City.
5. Barrier Free Access to Functional Open Space Amenities
 - a. For purposes of this section, barrier free access is defined as functional access for semiambulatory and nonambulatory persons.
 - b. Barrier free access to Functional Open Space amenities shall be provided pursuant to the City's adopted Building Code Section 1109.14 (Recreational and sports facilities). Exception: FLDs using the Housing for the Elderly maximum development option (Section 8.7.3.C.3.b) shall provide barrier free access pursuant to the City's adopted Building Code Section 1109.14 (Recreational and sports facilities) or 50 percent, but not less than one, of each type of Functional Open Space amenity, whichever is greater.
6. Trails that have current or future linkages to other trails, open space areas or recreation areas shall be provided as determined by the City Parks and Recreation Department.

WHAT CODE IS THIS SECTION FROM?

- (2) Elevations of single family detached units abutting a public street designated as a collector or arterial street in the Major Streets and Routes Plan; or, a private or public street designed and/or designated as a residential collector street.

c. Requirements

- (1) The same architectural elevation shall not be repeated more often than every fourth lot.
- (2) Architectural variation may be accomplished by incorporating a minimum of two of the following design features into the affected elevations: different building footprint orientation, building elevation, garage placement, roof type, ornamentation, or architectural style. The applicant shall work with the City's Design Professional to ensure that adequate variation is achieved.
- (3) Garage Placement. For FLD projects with over 20 or more single-family detached residential units, no more than 50 percent of detached residential units throughout the FLD shall be designed with garages that protrude from or are flush with the front wall of the living area or front porch of the house.

d. Architectural Variation Plan Required

- (1) An Architectural Variation Plan (AVP) demonstrating compliance with the requirements of this section shall be prepared in accordance with the Section 2-6.5.3.F of the Administrative Manual.
- (2) The AVP shall be included with the subdivision plat, site plan, or building permit submittal.
- (3) The Design Professional will review AVPs for compliance with this Section and forward his or her findings and recommendation in writing to the PDS Director for consideration of approval.
- (4) The PDS Director's decision may be appealed in accordance with Section 3.9.1, *Design Review Board Appeal Procedure*.
- (5) Conditions of the approved AVP shall be included as notes on the approved plat or site plan, whichever applies, and the building plan.
- (6) An AVP shall be approved prior to issuance of a building permit.

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2-06

2. Transition Edge Treatment and Mitigation for Adjacent Properties

a. Transition Edge Treatment

Where a single-family attached or multi-family FLD project is adjacent to existing single-family residential development, the FLD shall provide buffering in order to preserve the privacy of the existing residential development. Examples of buffering include, but are not limited to, landscaping, a fence, or a wall. The proposed buffering shall be included as conditions on the approved subdivision plat or site plan.

b. Privacy Mitigation

(1) Applicability

ADMINISTRATIVE MANUAL
SECTION 2: APPLICATION SUBMITTAL REQUIREMENTS
Section 2-06.0.0 Development Package

Applicants requesting a Maximum Density Option in accordance with Section 8.7.3.C.3.b must demonstrate compliance with the applicable criteria by written report or on the plat or site plan, whichever is appropriate;

- C. Functional Open Space
Delineate the boundaries of the proposed functional open space on the tentative plat or site plan, whichever is applicable. Provide, by note on the plat, the required and proposed functional open space calculations;

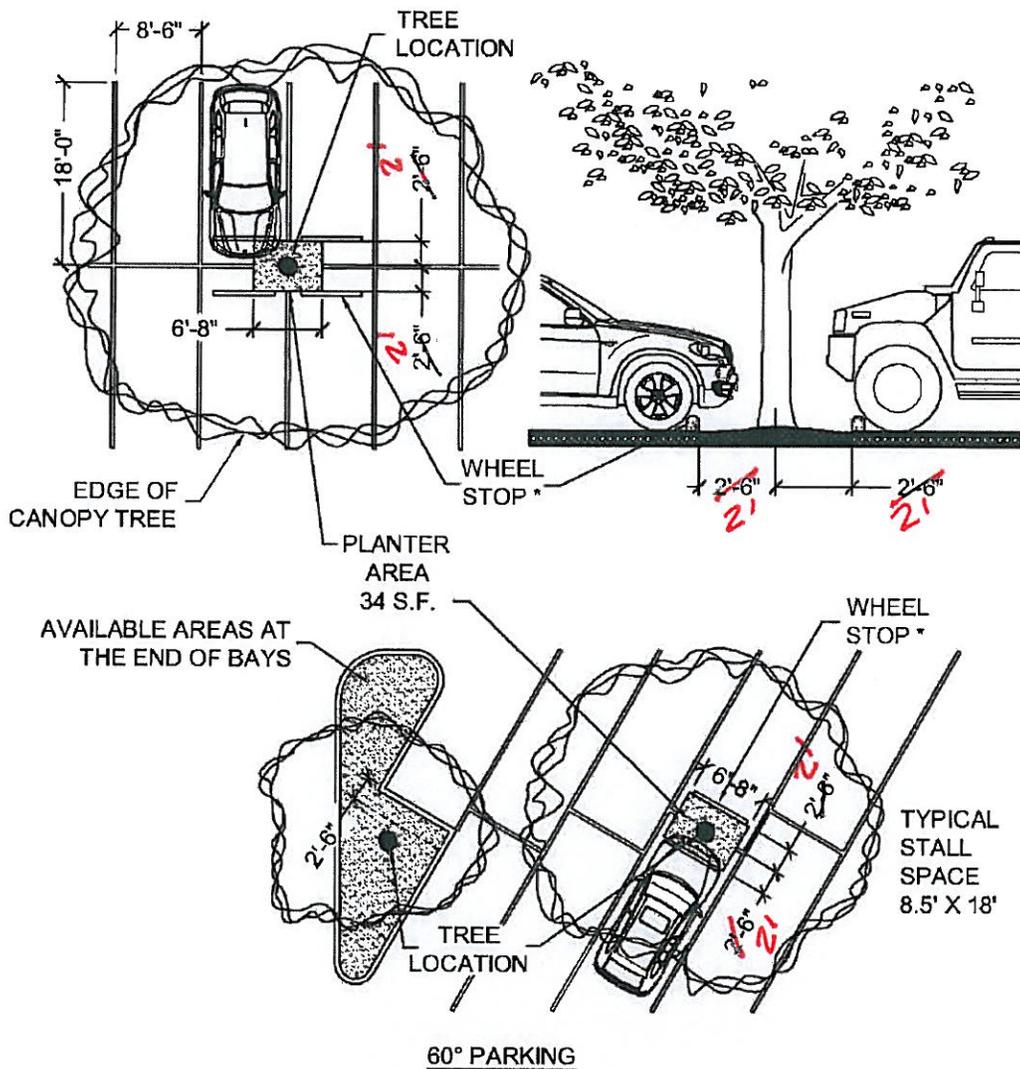
- D. Building Elevations
Provide dimensioned building elevations of all proposed units. The elevations can be preliminary drawings. The model home construction plans will be used to determine exact setbacks and screening requirements at the time of application for building permits;

- E. Architectural Variation Plan
When applicable, an architectural variation plan is required in accordance with Section 8.7.3.M.1 of the UDC as follows:
 - 1. Identify on the tentative plat or site plan the lots and/or units that must provide architectural variation; and,
 - 2. Provide a written statement and drawings (such as elevations and building footprints) demonstrating how the proposed architectural variation techniques comply with Section 8.7.3.M.1 of the UDC.

- F. Privacy Mitigation Plan
When applicable, a privacy mitigation plan is required in accordance with Section 8.7.3.M.2^{1a} of the UDC as follows:
 - 1. Identify on the tentative plat or site plan the lots and/or units that must provide privacy mitigation;
 - 2. Provide photographs of the site and its interface with the adjacent properties documenting the existing conditions; and,
 - 3. Provide a written statement and drawings (such as elevations and landscape plans) demonstrating how the proposed mitigation techniques comply with Section 8.7.3.M.2^{1a} of the UDC. The plan should include when practicable additional design elements to increase privacy such as the siting angle of buildings, windows, and lots;

- F. Covenants, Conditions, and Restrictions
 - 1. Provide three (3) copies of the Covenants, Conditions, and Restrictions (CC&Rs) regarding the homeowner's association's responsibility for the ownership and maintenance of commonly-owned property.
 - 2. Provide two (2) copies of the protective covenants or common use agreements for any shared areas being established by easements over individually-owned property.

REVIEW
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* WHEEL STOP LOCATION AS SHOWN ON THIS PAGE FOR TREE LOCATIONS ONLY

Figure 7.6.10-B: Vehicular Use Area

5-01.0.0 LANDSCAPING AND SCREENING STANDARDS¹⁰

- 5-01.1.0 GENERAL
- 5-01.2.0 DESIGN METHODS
- 5-01.3.0 LANDSCAPE REQUIREMENTS
- 5-01.4.0 WATER CONSERVATION AND IRRIGATION STANDARDS
- 5-01.5.0 MAINTENANCE STANDARDS
- 5-01.6.0 SCENIC CORRIDOR ZONE (SCZ)
- 5-01.7.0 LIST OF FIGURES

5-01.1.0 GENERAL

1.1 Purpose. This Standard is established to assure that proper techniques and materials are used in developing landscape plans and proposals in compliance with the Tucson Unified Development Code (UDC), ~~Sec. 3-7.0~~, Landscaping and Screening Regulations. *Art 7.6*

1.2 Definitions. Definitions used in this Standard are found in the Technical Standards Glossary or ~~Sec. 6-2.0~~ of the UDC. *Sec. 12 Art II*

5-01.2.0 DESIGN METHODS

2.1 Site Layout. Contained in ~~Sec. 3-7.0~~ of the UDC, Landscaping and Screening Regulations, are areas of required landscaping that may affect site layout and design. Site landscaping and screening can also support or deter criminal activity. To assist in the creation of landscapes which foster crime prevention, Crime Prevention Through Environmental Design (CPTED) concepts have been incorporated into this Standard. In order to organize the design process as efficiently as possible, it is best to consider the broad parameters which affect the site as a whole before proceeding to the detailed site design decisions. *Art 7.6*

2.2 Design. The designer should include the following elements in this order:

- A. Determine the intended use(s) of the project site and landscaped areas.
- B. Determine neighborhood or area plan applicability and design requirements, should the site fall within a plan area.
- C. Determine whether the UDC or other sections of the Tucson Code have any special zones or regulations which apply to the site. If there are, determine what compliance measures are necessary. Special zones include the Environmental Resource Zone (ERZ), the Hillside Development Zone (HDZ), or the areas included within the Watercourse Amenities, Safety, and Habitat (WASH) ordinance.
- D. Determine Scenic Corridor Zone (SCZ) and Major Streets and Routes (MS&R) Zone design requirements, if applicable.
- E. Determine whether or not development of the property is subject to a rezoning. If the property is involved in a rezoning, check to see if there were conditions placed on the approval that may affect the design.

¹⁰ Text from Development Standard Section 2-06.

- F. Determine whether or not native vegetation is to be preserved in place. To avoid having the preservation area destroyed during construction, a highly visible fence or, at a minimum, a highly visible rope should be placed surrounding the area (refer to Figure 1).
- G. Determine landscape border and screening requirements in conjunction with the proposed location of the building, improvements, and circulation pattern.
- H. If an oasis area is proposed for the project, calculate the oasis allowance including the turf and water feature elements.
- I. Determine the number and placement of trees and/or accompanying square footage of paved areas for the vehicular use areas, based on the method chosen for tree requirements.
- J. Determine where the proposed/existing outdoor, overhead lighting will be/is located. Design the placement of trees in coordination with the lights, so that the trees, at maturity, do not diminish the purpose of the lights. Conflicts such as this could result in the elimination or the extensive trimming of trees.
- K. Develop a detailed planting and irrigation plan for plant material selection and placement, screening, water requirements, and other design elements as required by ~~Sec. 3.7.0~~ of the UDC and this Technical Standard which supports the intended use of the project site and landscaped areas. Guidelines for implementing CPTED concepts in landscape design are provided in ~~Sec. 2-06.3.6~~.
Art 7.0
- L. Develop an irrigation system complying with ~~Sec. 3.7.0~~ of the UDC and this Technical Standard. An irrigation plan is required with the landscape plan when applying for permits.
Art. 7.6.4.G
Art 7.0
- M. Determine if any street right-of-way will be landscaped as part of the project. Landscaping within the right-of-way requires approval from the City Engineer's Office. There is no fee for landscaping City right-of-way.

However, if the landscaping design includes placement of screen wall, fencing, parking, or other similar improvements within the right-of-way, application for a Temporary Revocable Easement (TRE) with the City's Real Estate Division is required. If such use is approved, an annual fee is charged.

5-01.3.0 LANDSCAPE REQUIREMENTS.

3.1 Plant Material (Vegetation).

- A. Plant selection for landscaping is from the Drought Tolerant Plant List in Technical Standard ~~2-16.0~~. Exceptions: Oasis allowance area and Scenic Corridor Zone.
5-02.6.0
- B. Plant selection for landscaping within public right-of-way is from the Drought Tolerant Plant List in Technical Standard ~~2-16.0~~, except along a Scenic Corridor Zone.
5-02.6.0
- C. Oasis areas may be landscaped with nondrought tolerant vegetation, including turf. Refer to ~~Sec. 2-06.3.2~~.
Sec. 5-01.3.2

- D. Scenic Corridor Zone plant selection is to include native plant material in addition to plants from the Drought Tolerant Plant List. For specifics, see Sec. ~~2-06.7.0~~ ^{5-02.6.0} ~~5-02.6.0~~.
- E. The types of seeds used for reseeding after grading and for revegetation are to be selected from the seed list in Technical Standard ~~2-16.0~~ ^{5-02.6.0}. Seeding programs may be utilized in all areas except to comply with the canopy tree requirements or with the fifty (50) percent vegetative coverage in landscape borders.
- F. Turf is permitted only in the oasis area.
- G. Healthy trees and shrubs existing on a site are encouraged to be preserved in place, especially if drought tolerant. Vegetative ground covers are required to be drought tolerant and listed on the Drought Tolerant Plant List in Technical Standard ~~2-16.0~~ ^{9-02.6.0}.
- H. Plant materials proposed for locations subject to maximum heights and/or minimum canopy heights shall be capable of being maintained as required without adversely affecting the health of the plant materials.

3.2 Oasis Allowance.

- A. An oasis area is not required but is permitted. The oasis allowance does not have to be calculated unless an oasis area is proposed. The amount of oasis area landscaping, as permitted by Sec. ~~3-7.2.2~~ ^{7.6.4} of the UDC, is calculated by multiplying the net site area (the site area after dedication or public acquisitions of drainageways and rights-of-way) by a factor according to the use.
 - 1. *Multifamily Uses:* There are three methods by which the oasis area can be calculated; by an amount equal to either five (5) percent of the net site area, eight (8) percent of the required open space, or one hundred (100) square feet per dwelling unit. The greater amount calculated by any of these methods is the maximum permitted (see *Figure 2*).

Example using net site area:

Net site area	143,748	sq. ft.
(multiplier)	<u>.05% factor</u>	
OASIS AREA =	7,187.4	sq. ft.

Example using open space:

Open space per unit	500	sq. ft.
(multiplier)	120	no. of units
Open space required	60,000	sq. ft.
(multiplier)	<u>.08</u>	% oasis
OASIS AREA =	4,800	sq. ft.

Example using 100 sq. ft. per unit:

Oasis area per unit	100sq. ft.	
(multiplier)	<u>120</u>	no. of units
OASIS AREA =	12,000	sq. ft.

2. *All Other Uses:* In all other situations (other than multifamily development), the oasis area is calculated by multiplying the net site area by two and one-half (2½) percent (see **Figure 3**).

Example:

Site area	43,560	sq. ft.
(multiplier)	<u>.025</u> %	
OASIS AREA =	1,089	sq. ft.

B. The following factors will be considered to determine the location of the oasis area.

1. The oasis is placed on the site near main buildings or assembly areas where pedestrian activities are designed to occur or in an active use area.
2. The oasis is designed for optimum exposure to on-site users.
3. The oasis is designed as part of an area of repose, such as a seating, assembly, rest, dining, or employee break area, or it is designed to enhance a main pedestrian entryway.
4. The oasis is located in an area of relatively low evaporation potential from wind and heat.
5. The oasis is located in an area of common recreation and patio facilities in multifamily development.
6. The water harvesting system or storm water runoff design on the site is integrated with the oasis.
7. ~~Sec. 3.7.2.2.C of the UDC allows~~ a portion of the oasis area to be located within the street landscape border, provided:
 - a. The amount of oasis area does not exceed five (5) percent of the street landscape border area; and
 - b. The oasis area within the street landscape border is restricted to bedding plants; and
 - c. The bedding plants are not placed within the street right-of-way as per Sec. 2-06.3.1. ?

3.3 Vehicular Use Areas. Landscaping within vehicular use areas as required by Sec. ~~3.7.2.3~~ of the UDC will be designed and landscaped to the following standards.

- A. As per Sec. ~~3.7.2.3~~ of the UDC, canopy trees are required within the vehicular use area at a ratio of one (1) tree for every fifteen (15) parking spaces or fraction thereof. The trees must be evenly distributed throughout the vehicular use area.

Where a landscape border or other landscape area abuts the vehicular use area, canopy trees within those landscape areas may count toward the vehicular use area canopy tree requirement, provided:

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Handwritten note: 7.6.4.B

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1. The trees are planted within ten (10) feet of the vehicular use area; and
2. The number of canopy trees that are provided within the vehicular use area is not reduced by more than fifty (50) percent of the amount required; and
3. There is a minimum of one (1) canopy tree provided within the vehicular use area.

Example: A project with seventy-five (75) parking spaces is required to have five (5) canopy trees within the vehicular use area. In addition, there are two (2) trees being provided within the landscape border surrounding the vehicular use area. The two (2) trees in the landscape border also count toward the required five (5) in the vehicular use area. This means only three (3) trees need to be planted in the vehicular use area.

- B. As an option to the ratio of one (1) tree for every fifteen (15) parking spaces, canopy trees can be provided by one (1) of the following two (2) methods:

Option 1. Canopy trees can be provided so that no parking space is farther than thirty (30) feet from the trunk of a tree (see **Figure 4**). Trees adjacent to and within ten (10) feet of the vehicular use area can also be used from which to measure the thirty (30) feet.

Option 2. The project can be designed so that the shade pattern caused by trees and buildings covers at least fifty (50) percent of the vehicular use area. The amount of shade available on June 21 is calculated between the hours of 9:20 a.m. and 3:20 p.m., Mountain Standard Time. (This is the same as 9:00 a.m. to 3:00 p.m. using Solar Time.)

- C. For each tree required by the UDC, a planter area with a minimum unpaved area of thirty-four (34) square feet and a four (4) foot minimum width is required.

1. The measurement is always within the planter area and does not include any material which defines the outer edge of the unpaved area.
2. The unpaved area may be covered with a permeable material or with grillwork, but air and moisture must be able to penetrate the soil.
3. Inert or vegetative ground cover is used in planter areas not otherwise occupied by trees, shrubs, or grillwork.

- D. Canopy trees planted within and adjacent to vehicular use areas should be planted in a manner which will afford the greatest amount of shade to the paved areas.

- E. Parking spaces may be designed so that the front of a vehicle overhangs into planter areas that are within a vehicular use area but cannot overhang into the street landscape border. When planted within the vehicular use area, trees should be located at the edge and between vehicle spaces, such as the common corner of four (4) perpendicular spaces that face each other (see **Figure 5**).

1. The maximum amount of overhang is the same measurement as the parking space wheel stop location, as permitted in Technical Standard ~~3-05.0~~ **Art 7.4.6.H**
2. The planter area must have a raised border four (4) inches high to prohibit the tires of the vehicle from encroaching onto the planter. Standard wheel barriers are acceptable but not encouraged, as they can be easily moved and could allow damage to the tree.
3. Only trees with single trunks are to be planted within these planters. Trees with multiple trunks need wider areas of growth and interfere with the vehicle.

F. In development where it is necessary to bring the existing vehicular use areas into conformance with these regulations, gaps are allowed in the tree coverage requirement of even distribution, provided that at least the minimum required number of trees is placed within or adjacent to the vehicular use area with coverage which is as uniform as possible. Canopy trees adjacent to the vehicular use area may count toward meeting this requirement, provided the trees meet the criteria listed in Sec. ~~2-06.3.3.A~~ **5-01**.

3.4

Landscape Borders. There are two (2) types of landscape borders, a street landscape border and an interior landscape border.

Street landscape borders are required on all projects except those fronting on a Scenic Route or unless specifically exempted. Interior landscape borders are required only when indicated in Table ~~3-7.2-1~~ **7.6.4-1** of the Landscaping and Screening Regulations, Sec. 3.7.2.4, of the UDC. For requirements along street frontages on Scenic Routes, refer to Sec. ~~2-06.7.0~~ **?** of this Standard.

A. Existing drought tolerant vegetation on adjacent sites should be considered in design to prevent abrupt changes in plant types and to maintain a visual continuity along street frontages.

B. Covered parking canopies or other structural canopies, such as those used in service stations, may not overhang into street landscape borders. This is in order to avoid conflicts between the structures and crowns of trees.

duplicate of 7.6.4.C.2.A

C. A street landscape border, Sec. ~~3.7.2.4~~ **Art. 7.6.4.C** of the UDC, is a landscape area with a ~~minimum width of ten (10) feet~~ **?**, running the full length of the street property line bounding the site except for points of ingress-egress.

1. **Minimum Width.** The street landscape border minimum width is ten (10) feet. It is to be located on site and measured from the street property line. On streets designated as Major Streets and Routes (MS&R), the street landscape border is measured from the MS&R right-of-way line. For information on the location of the MS&R right-of-way line, refer to Sec. ~~2-8.3.4~~ **Art 5.4.4** of the UDC.

There are situations where the UDC allows up to five (5) feet of the required ten (10) feet of landscaping to be located within the right-of-way. The required landscaping may be located within the right-of-way only if there are no utilities within the same area, the required

landscaping area is extended only to the back of sidewalk, and the City Engineer's Office approves such use in the right-of-way.

On MS&R streets, the back of sidewalk is the standard sidewalk location based on the MS&R cross-section for the designated width. According to City Engineering standards, this would place the back of sidewalk seven and one-half (7½) feet from the face of roadway curb, unless there is a specific City Engineering plan indicating a different location. The MS&R cross-sections are listed in the *Major Streets and Routes (MS&R) Plan*.

- 2. **Maximum Width.** In situations where the street landscape border is wider than the minimum ten (10) foot requirement, the landscape border width needs to be determined for the purposes of calculating the fifty (50) percent vegetative coverage requirement, Sec. ~~3.7.2.4~~ of the UDC. The width is that area between the required screen and the property line, unless there is encroachment into the right-of-way as per Sec. 2-06.3.4.C.1. *5-01.3.A* *Art 7.6.4.C.2.e*

D. Within the street landscape border, the required landscape elements include the following.

- 1. Canopy trees are to be provided in number equal to or greater than an average of one (1) per thirty-three (33) feet, excluding the access points, of the site frontage length, with a minimum of one (1) tree per site.
- 2. Fifty (50) percent or more of the street landscape border area must have shrubs and vegetative ground cover to comply with the coverage requirement of Sec. ~~3.7.2.4~~ of the UDC and Sec. ~~2-06.3.5~~ of this Standard. *7.6.4.C.2.c* *5-01.3.5*
- 3. Inorganic ground cover is to comply with the dust control measures of Sec. ~~3.7.2.7~~ of the UDC. *7.6.4.C.2.d*

duplicate of 7.6.4.C.2.e. except for time frame

E. An interior landscape border is a buffer area located along common property lines between two (2) land uses and is required in specific situations per Table ~~3.7.2.4~~ of the Landscaping and Screening Regulations, Sec. ~~3.7.2.4~~ of the UDC. The only landscape elements required within the interior landscape border are canopy trees (Sec. 3.7.2.4 of the UDC) (see Figure 6). *7.6.4.C.3*

7.6.4-I

- 1. The canopy trees are to be provided in number equal to or greater than an average of one (1) per thirty-three (33) feet of property line length.
- 2. Trees are to be planted within ten (10) feet of the property line.
- 3. Inorganic ground cover is to comply with the dust control measures of Sec. 3.7.2.7 of the UDC.

Art 7.6.4.C.3.C.1

F. Under certain circumstances (refer to Sec. ~~3.7.2.4~~ of the UDC), the interior landscape border may be eliminated if an equivalent number of canopy trees is installed elsewhere within the vehicular use area.

3.5 **Plant Size, Location, and Spacing.** Required plant characteristics and planting standards for various landscape applications are as follows.

- A. When vegetation is used to satisfy a screen requirement, the size of the plant material specified will be five (5) gallon minimum and be of a type that will maintain an opaque screen year round.

Screen planting can be aligned, clustered, or unevenly spaced to provide interest as long as the plants provide a continuous screen, at maturity (see *Figure 7*).

Because screens are to be opaque, plant growth in width, at maturity, is essential for vegetation to be acceptable as a screen. Therefore, when vegetation is proposed for screening purposes, an appropriate width of planter area must be provided in addition to the width of the landscape border for the plants to work as intended. The width of the screen is based on the growth pattern of the plant material chosen. For example, if *Nerium oleander* is specified, the minimum width that will have to be available is six (6) feet, as that plant grows as wide as it does high. The thickness of the plant is necessary for the required opaqueness to be acceptable as a screen.

- B. For the calculation of plant growth coverage, two (2) years' growth will be used as a base for shrubs and ground covers. Ten (10) years' growth will be used for trees.

If the requirement is for a certain size area of landscaping or for a purpose such as dust control, the plant materials used must be installed with the appropriate spacing and must cover more than fifty (50) percent of the area with vegetation. Indicate "on center" (o.c.) planting requirements for all ground cover.

- C. Trees that are located in areas of required landscaping will be a minimum fifteen (15) gallon container size and meet the minimum plant size standards for the Arizona Nursery Association Grower's Committee. Palms will have a minimum trunk height of five (5) feet from soil line to the bottom of the crown.

- D. The spacing of trees in the landscape borders must be adjusted to allow solar access to existing solar collectors on adjoining property and to prevent conflict with utility wires and easements (see *Figure 8*).

AS DEFINED IN ART 11.4.20

- E. Trees planted near sidewalks or curbs will be planted at a sufficient distance from the structural improvement to prevent pavement upheaval or soil settling. Where the distance is not available or where the design places the trees closer to the improvement, suitable barriers to the root system to mitigate pavement upheaval or soil settling will be installed with the landscaping. If the trees are in the public right-of-way, the root barriers must be approved by the City Engineer or designee.

- F. Shrubs in areas of required landscaping other than for opaque screening will be a minimum one (1) gallon container size, with twenty (20) percent of the required number to be five (5) gallon container size or larger.

- G. Ground cover in areas of required landscaping may be one (1) gallon container size or in flats if the watering techniques allow.

- H. Trees are to be planted an appropriate distance from refuse dumpster locations and loading spaces so that the tree canopy, at maturity, does not obstruct service.

DIFFERENT
LANGUAGE
IN ART. 7.6.4.E.11

I. Use of high pollen-producing plants will be kept to a minimum on the site. These plant materials, when used, should not be concentrated in any one location. Pima County health ordinances regulating the use, maintenance, and sale of specific plant species, such as bermuda grass, mulberry trees, and olive trees, also apply in the City of Tucson.

J. Landscape designs for developments that are projected for construction and occupancy during the winter months are to avoid using frost-sensitive vegetative ground cover. If it cannot be avoided, planting schedules should be discussed with the Planning and Planning and Development Services Department (PDSD) to establish conditions of occupancy. Landscaping regulations require final inspection of landscaping prior to occupancy.

*K. Conflicts with Utilities and Solar Access ... 3.6
7. G.4, B.10*

Crime Prevention Landscaping Guidelines. The positioning, location, and type of plant material, screening, and other landscape elements should allow for natural surveillance of the outdoor spaces from within buildings, from outdoor locations on-site, and from adjacent buildings, sites, and rights-of-way. Landscaping and screening should complement efforts to define public, semipublic, and private spaces. Security is enhanced when entrances to and exits from buildings or open spaces around buildings, including pedestrian walkways, are open and in view of the surrounding neighboring or adjacent sites. The more open the view of a space is the less likely that space will be used for commission of a crime.

A. Encourage the utilization of curbs, sidewalks, and landscaped trails to define public, semipublic, and private areas.

B. Define property owner/occupant areas of influence through the use of design elements, such as walls, fences, changes in level or grade, lights, color, or change in paving texture.

C. To allow maximum visibility and surveillance of the development, utilize screening which is no higher than required by this Standard unless high enough to create an effective barrier to entry.

D. In areas adjacent to doors and windows, select plant material of such height to retain visibility of building openings from the street or from other development (e.g., less than thirty [30] inches or with a greater than six [6] foot space between the ground and the canopy).

E. Shrubs and ground cover located within four (4) feet of the edge of a walkway shall not exceed thirty (30) inches in height, except where other requirements call for a greater height. An effort should be made to avoid a design requiring a greater height. Trees located less than twelve (12) feet from the edge of a walkway shall be trimmed to a minimum six (6) foot canopy height. (See **Figure 9**.)

Use of barrier plants (see **Figure 10**) in areas adjacent to walkways is recommended with consideration for pedestrian safety in compliance with ~~Sec. 2-06.3.8.~~ *5-1.3.8*

F. River rock shall not be used in landscaping located adjacent to parking lots.

- G. Unless adjacent to a pedestrian path, barrier plants shall be planted below and extending at least twelve (12) inches beyond each side of windows. Plant materials in this area shall be no higher than the sill height of the window.

3.7

Screening Standards. The screening requirement is in addition to the landscape requirements. The use of vegetation to satisfy the screen requirement is allowed only to provide for alternative treatment and is not in any way meant to imply that the vegetative screen can also be used to meet the landscape requirement. In the following discussions, the word "screen" includes all types of screens (walls, fences, earth berms, hedges, etc.), unless a particular type of screen material is specifically identified. When applied to a vegetative screen, the height is based on growth, at maturity.

- A. Height of screens is measured in the following manner.

1. The height of screening material adjacent to property lines is measured on the project side of the screen, at finish grade (see **Figure 11**).
2. The height of screening material necessary for certain uses, such as mechanical installations, is measured from the highest point of the element being screened, up to a maximum of six (6) feet, if the screen is free standing or as allowed by the Uniform Building Code if attached to the primary building (see **Figure 11**).

- B. Screen Location Along Street Frontages.

1. Screens with a height ^{is} greater than thirty (30) inches ~~cannot be located~~ within the sight visibility triangle (SVT) required by Technical Standard 3-01.0. This means that, if a screen is between thirty (30) inches and six (6) feet in height ~~and encroaches into the SVT~~, the screen must be located outside the SVT area. *10-01.5.0*
2. Screens, whether required or not, are to be located on the development side of the street landscape border so that the landscaping is visible from the street.
3. Screens may be located any distance from the property line as long as the street landscape border is between the screen and the street property line and the screen does not interfere with the SVT.
4. A building can serve as the required screen along a street if only landscaping is proposed between the building and the street property line.
5. Screens are allowed by Code to encroach into or be located within the minimum width required for the street landscape border under the following conditions.

The maximum height of any

This flexibility is available to provide design alternatives to the monotony of a linear treatment to a screen and is not intended as a method of reducing the amount of required landscaping.

- a. The minimum width provided for the street landscape border is ten (10) feet.

Engineer's Office allows the berm to occur within the right-of-way area.

The slope of the earth berm will not exceed one (1) foot of rise for every three (3) feet of distance. This is applicable on all slopes. At this ratio, a minimum of nine (9) feet in distance (the width of the border) is needed to achieve a height of three (3) feet for only one (1) side of the berm.

If berms are used in conjunction with vegetation or a retaining wall to achieve the screen, the vegetation or wall still has to occur at the area of the landscape border farthest away from the property line as per Sec. 2-06.3.7.B.5.b.

All sides of
Bermed areas, ~~front and back sides~~, must be landscaped to comply with minimum requirements when located within the street landscape border area. Vegetation also minimizes erosion.

If the toe of the berm slope abuts a sidewalk or pedestrian area, design precautions must be implemented to prevent water from washing debris, dirt, rocks, etc., onto the sidewalk or eroding the pedestrian path.

The ordinance requires the thirty (30) inch screen across the entire frontage, except at points of ingress-egress. When berms are used, design solutions are to be provided accomplishing screening requirements if the berm cannot satisfy the requirements (i.e., at the ends where the berm slopes or if the berm is cut to place a tree).

C. Screen Location Along Interior Property Lines.

? The location of required screens along interior property lines is the property line. There is no specified location for screens if they are not required.

In situations where a utility or drainage easement runs along a property line and the width of easement lying within a site is not used as part of the site, then the required screen can be located at the easement line.

? D. Screen heights shall be reduced in compliance with Sec. *2-01.3.6.B* ~~2-06.3.6.E~~. (See Figure 9.)

3.8 Safety Standards.

A. Vegetation, such as those with spines, thorns, or needles, that may present hazards to pedestrians, bicycles, or vehicles are to be planted a safe distance from the outer branch tips to the edge of a walkway, bike lane or path, roadway, or parking area access lane (PAAL). The growing characteristics of the vegetation are to be taken into consideration when determining this distance (see Figure 13).

B. Shrubs or ground cover planted adjacent to a walkway, driveway, bicycle path, or street must be placed with the plant center at a distance equal to or greater than one-half (1/2) the normal width of the plant, at maturity.

- C. Shrubs or ground cover that spreads will be kept pruned to prevent encroachment upon walkways, bicycle paths, driveways, or streets.
- D. Trees with the potential for overhanging a walkway, driveway, bicycle path, parking space, or street must be of a type that, at maturity, provides a canopy with an understory height clearance of eight (8) feet for walkways and bicycle paths, twelve (12) feet for driveways and streets, and fifteen (15) feet for loading spaces. The height clearance will be maintained by pruning during the tree's active growth period or when necessary.
- E. Trees should be planted no closer than three (3) feet from a PAAL or street to avoid damage from vehicles.
- F. Shrubs located in planting areas within vehicular use areas at the intersections of drives will be of a type that grows to no more than thirty (30) inches in height. Any other planted area that may potentially obscure a driver's view of oncoming pedestrians, bicyclists, or vehicles is also subject to this requirement.
- G. Sight Visibility (see **Figure 14**). All landscaping and screening must comply with the sight visibility requirements of Technical Standard 3-01.0. Plant materials located within sight visibility triangles should consist of ground cover or low-growing vegetation of a species that will not grow higher than thirty (30) inches. However, trees may be installed within those areas provided that:
 - 1. The trunk caliper, at maturity, will not exceed twelve (12) inches in diameter;
 - 2. The lowest branch of any tree is at least six (6) feet above the grade of the street or driveway, whichever is the determining factor in the sight visibility triangle; and
 - 3. Trees are not planted in a line that could result in a solid wall effect when viewed at an angle.
- H. Required screening over thirty (30) inches in height will be placed out of the sight visibility triangle.
- I. Trees are to be planted an appropriate distance from refuse dumpster locations so that the tree canopy, at maturity, does not obstruct collection.

Duplicates
5-01.3.7.A.

5-01.4.0 WATER CONSERVATION AND IRRIGATION STANDARDS.

- 4.1 Xeriscape Landscape Concepts. Landscaping as required by the UDC is to be low water use with emphasis on the utilization of water conserving irrigation systems and drought tolerant vegetation as listed in the Drought Tolerant Plant List in Technical Standard 2-5-02 16.0. The UDC allows the use of nondrought tolerant plants within an oasis area only.

Xeriscape landscaping is a transitional planting zone concept which may consist of as many as three (3) zones, as follows:

Zone 1. The oasis zone is not required nor encouraged. If used, the oasis zone must be planned in areas of high use, such as active recreation areas or social gathering areas near buildings. Oasis areas have added benefits of decreasing interior energy use if

planned in conjunction with energy-conserving building design. (See Sec. 2-06.3.2 to calculate oasis zone size.)

There are no restrictions on plant selection within this zone, and the use of turf is allowed; however, a lush green effect can also be achieved with plant selection from the Drought Tolerant Plant List. Irrigation systems for plants within this zone should be valved separately from plants in Zones 2 or 3, if plants in the other zones have different watering requirements.

Zone 2. This zone is the transition zone between Zone 1 (oasis zone) and Zone 3. Plant selection for this zone must be from the Drought Tolerant Plant List and should have a lower watering requirement than plants in the oasis zone. If plants selected have a different watering requirement from those in Zone 1 or 3, then the irrigation system should be valved separately.

Zone 3. This zone is usually on the periphery of the property adjacent to Zone 2. Plant selection is from the Drought Tolerant Plant List and generally includes those with the lowest irrigation requirements. Plants in this zone, if selected with care, can be of the type that could survive without irrigation once established. Use of native plants indigenous to the area is encouraged (see *Figure 15*).

4.2

Soil Preparation.

- A. The soil will be amended with natural material suitable for the particular requirements of the plants to allow the plants to grow and to use water more effectively.
- B. Caliche layers will be broken in planting areas to promote good drainage and root growth.
- C. If vegetative ground cover is not intended, a minimum two (2) inch layer of organic or inorganic material (i.e., decomposed granite, rock mulch, or other material) will be used as ground cover under and around the vegetation in landscaped areas to help cool soil areas, reduce evaporation, and retard weed growth. Existing areas of undisturbed native vegetation retained on the site are not required to have the soil mulched or amended.

4.3

Reclaimed Water Use--Tucson Water Review.

- A. The Tucson Water Department will review all applications for building permits and development plans to determine the feasibility of using reclaimed water to irrigate landscaping.
- B. Tucson Water will provide the applicant with a sign-off sheet indicating whether potable water or reclaimed water will be used for irrigation.
- C. The applicant will turn in the sign-off sheet to the Planning and Planning and Development Services Department (PDSD) prior to the issuance of a building permit or the approval of a development plan.

USE
TEXT FROM
7.8 & B

4.4

Irrigation Standards. Most plant material requires supplemental irrigation. In general, most newly planted vegetation, with the possible exception of native cacti, requires irrigation until established.

3. Areas of different water requirements, such as the oasis, trees and shrubs, the vehicular use area, landscape borders, and native vegetation areas, will be controlled by separate remote control valves.
4. The design of irrigation systems and irrigation schedules should attempt to match application rates with infiltration rates in order to minimize runoff and reduce evaporation.
5. Sprinkler heads and nozzles within each control valve should have matching precipitation rates.
6. Spray irrigation systems are not to be installed in planting strips less than ten (10) feet wide. Strip spray heads are not allowed.
7. Irrigation timers are to be set for irrigation cycles between 8 p.m. and 8 a.m. between May and September to minimize water loss due to evaporation.
8. Rain-sensing and moisture-sensing devices are encouraged.

5-01.5.0 MAINTENANCE STANDARDS.

5.1 Plant Materials.

- A. Any plant material in areas of required landscaping that does not survive will be replaced with an equivalent size and species within thirty (30) days.
- B. Plant material will be pruned as necessary to control size but not to disrupt the natural growth pattern or characteristic form of the plant except as necessary to achieve height clearance for visibility and pedestrian passage or to achieve a continuous opaque hedge if required.
- C. Clipping and pruning of the plant material are required to allow maximum shading while preserving surveillance opportunities and preventing obstructive overhang into walks, curb areas, drives, and line of sight triangles.

For general guidelines on height clearance of tree canopies, refer to Sec. 2-06.3.6.D, Sec. 2-06.3.6.E, Sec. 2-06.3.6.F, and Sec. 2-06.3.7.D.
5-01 *5-01* *5-01* *5-01*
- D. All dead or removed plant material will be replaced with plant material acceptable under the requirements of the xeriscape landscaping regulations. Replacement material will be a minimum fifteen (15) gallon size for trees and five (5) gallon size for shrubs.
- E. Regular landscape maintenance should ensure water efficiency and include, but not be limited to, pruning, mulching, weeding, litter removal, aerating and dethatching turf areas, and fertilizing nonnative plant materials.

5.2 Inert Materials.

- A. Exterior improvements, such as benches, walls, or ramadas, will be of durable materials appropriate to the desert climate. Material with integral coloring or stucco is preferred for seating fixtures and other permanent improvements.

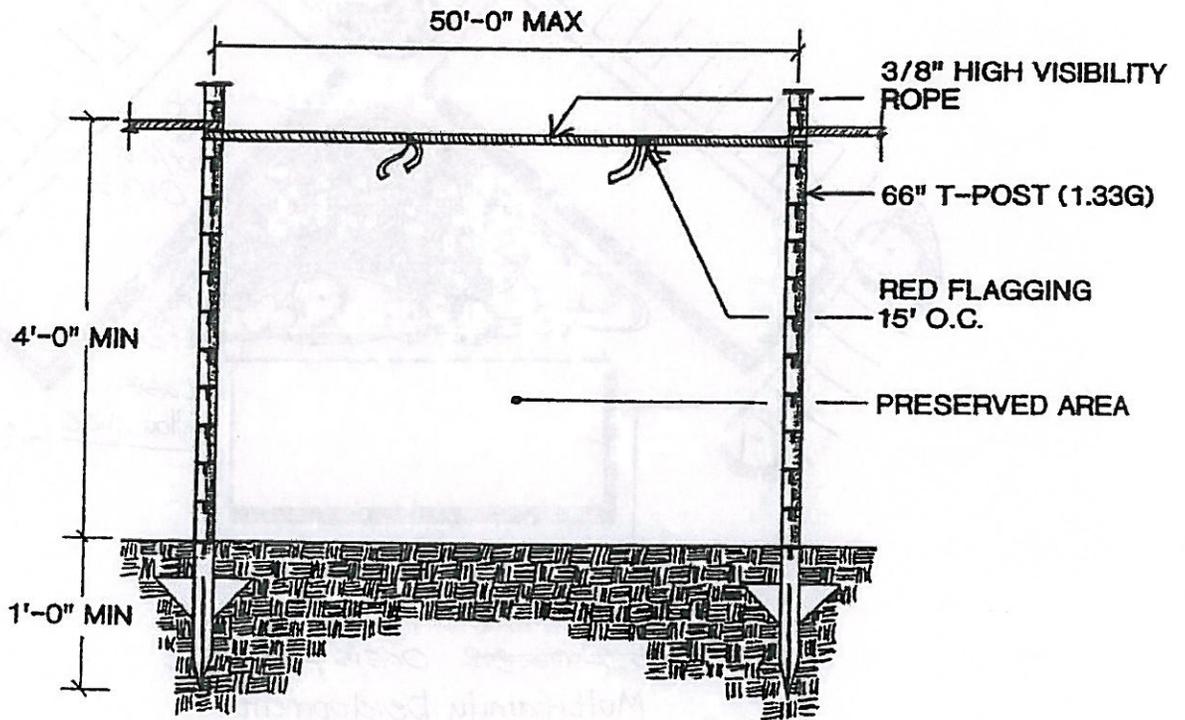
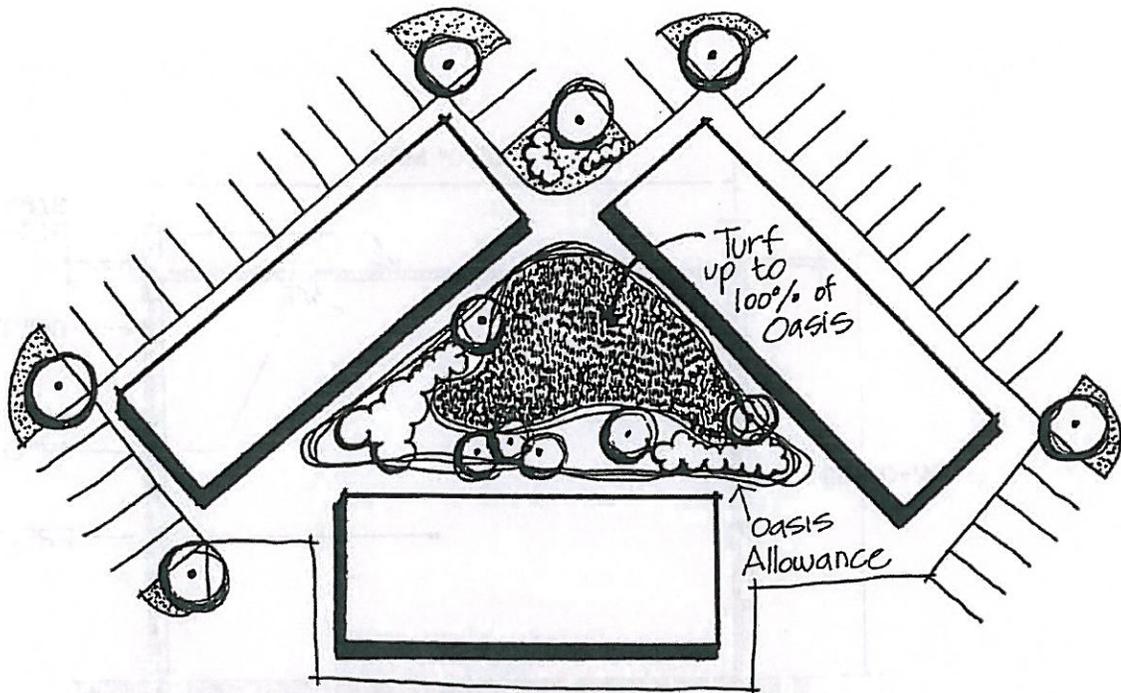


Figure 1: Site Preservation Fence Detail

TM 5-01.2.2.F



N.T.S.

TM 5-01.3.2.A.1

~~D.S. 2-06.3.2~~ Oasis Allowance
Multifamily Development

Oasis Allowance = 5% of site

Turf Allowance = Up to 100% of Oasis

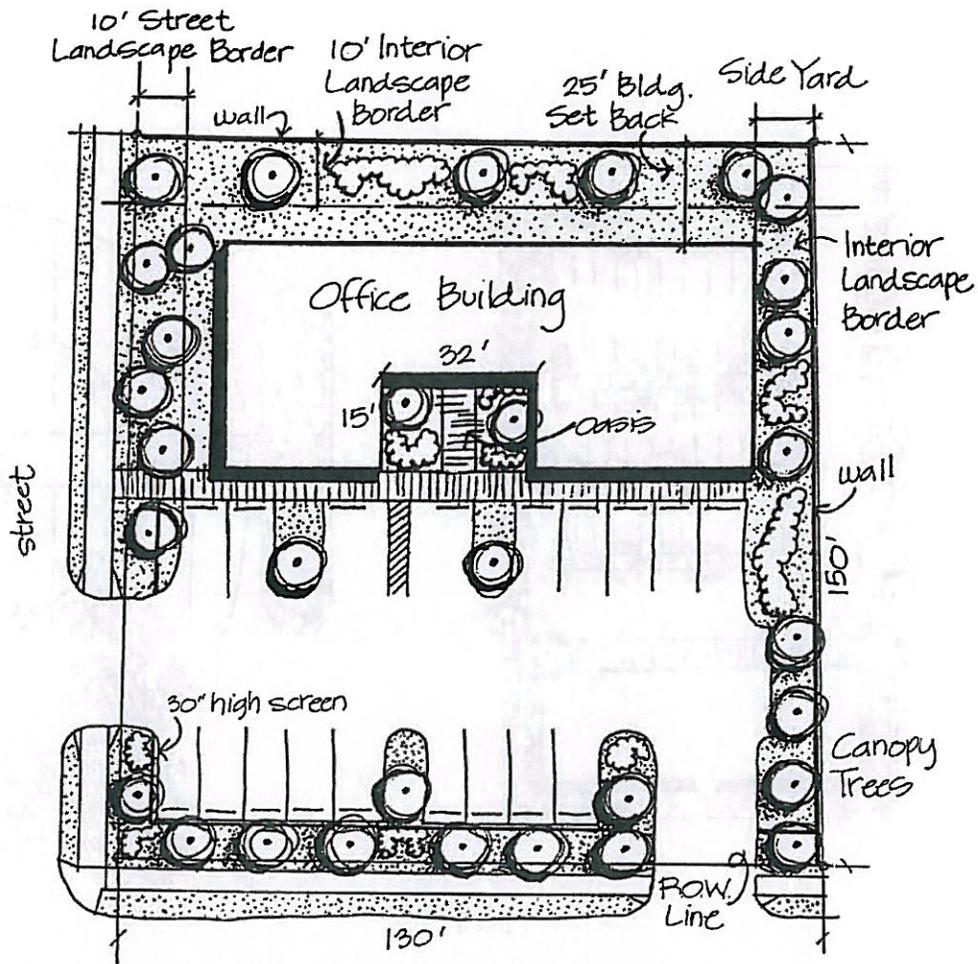
Example using one of the three options:

Four Acre Multifamily Development = 172,240 sq.ft.
X.05

8712 sq.ft.
Oasis Allowance

Figure 2: Oasis Allowance for Multifamily Development

TM 5-01.3.2.A.1



N.T.S.

TM 5-01.3.2.A.2

~~D.S. 2-06.3.2~~ Oasis Allowance

Oasis Allowance for office development
2.5% of Site area

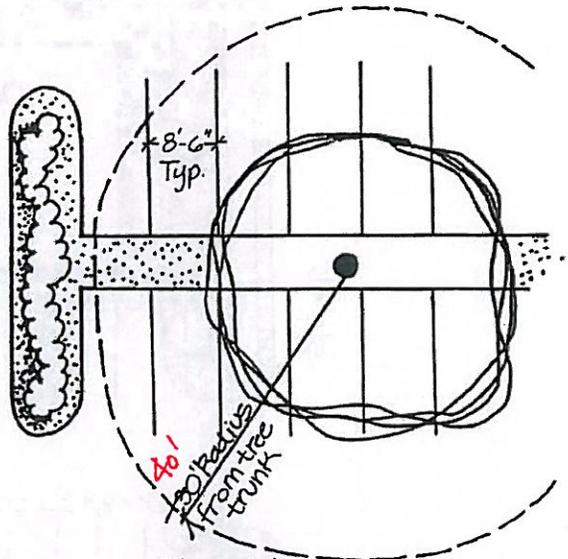
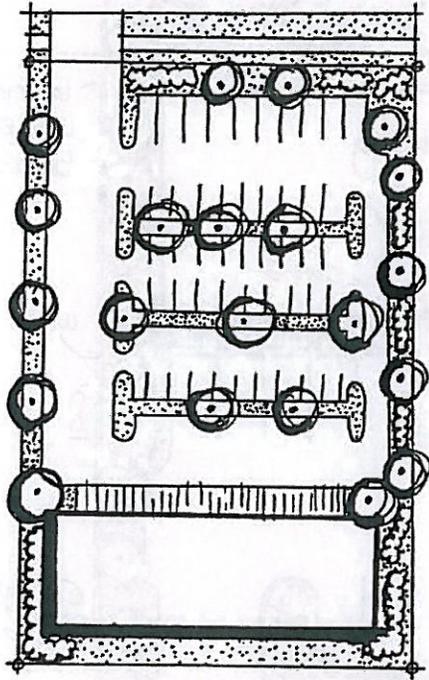
Calculation:

$$\begin{array}{r} \text{Site Area} = 150' \\ \quad \times 130' \\ \hline 19,500 \text{ sq. ft.} \\ \quad \times .025 \\ \hline \end{array}$$

$$487.5 \text{ sq. ft.} = \text{Max. Oasis Area}$$

$$\text{Max. Oasis Area} = 15' \times 32' = 480 \text{ sq. ft.}$$

Figure 3: Oasis Allowance for Office Development

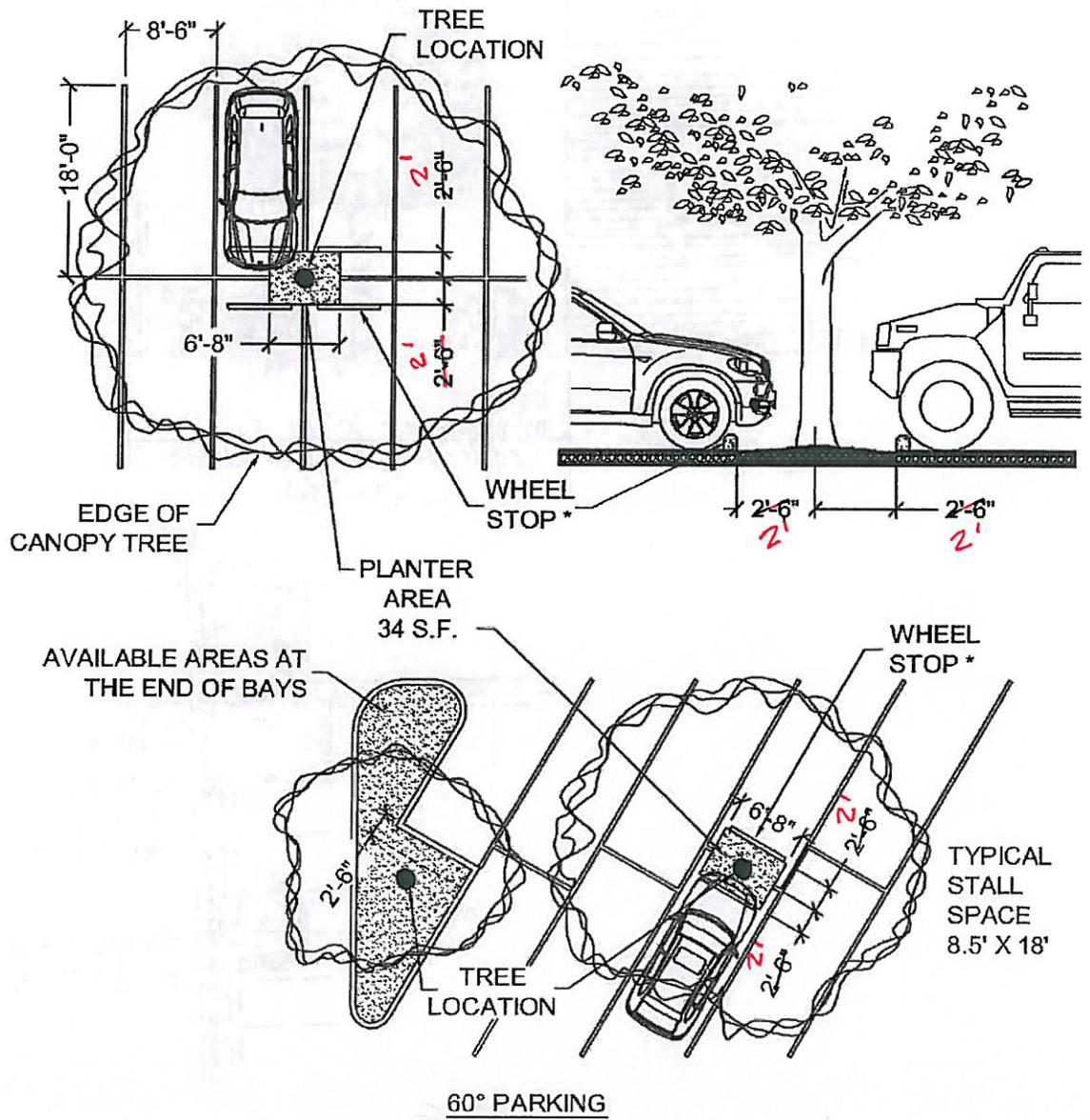


All parking spaces to be placed no further than 30' from tree trunk.
40'

N.T.S.

Figure 4: Vehicular Use Area

TM 5-01.3.3.

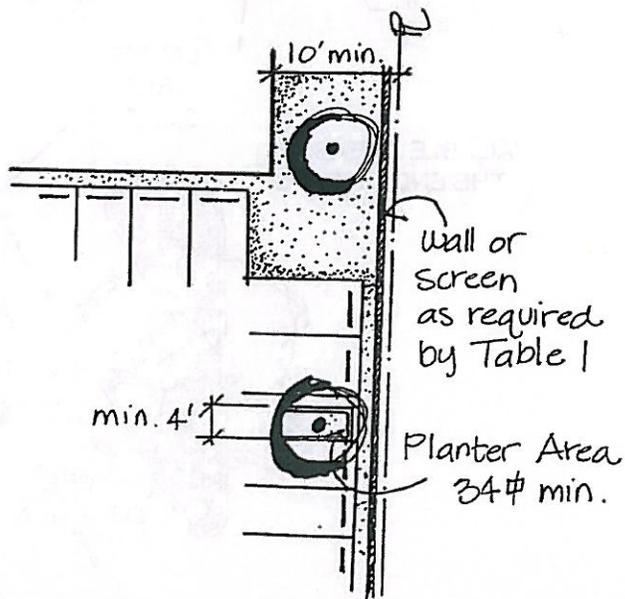
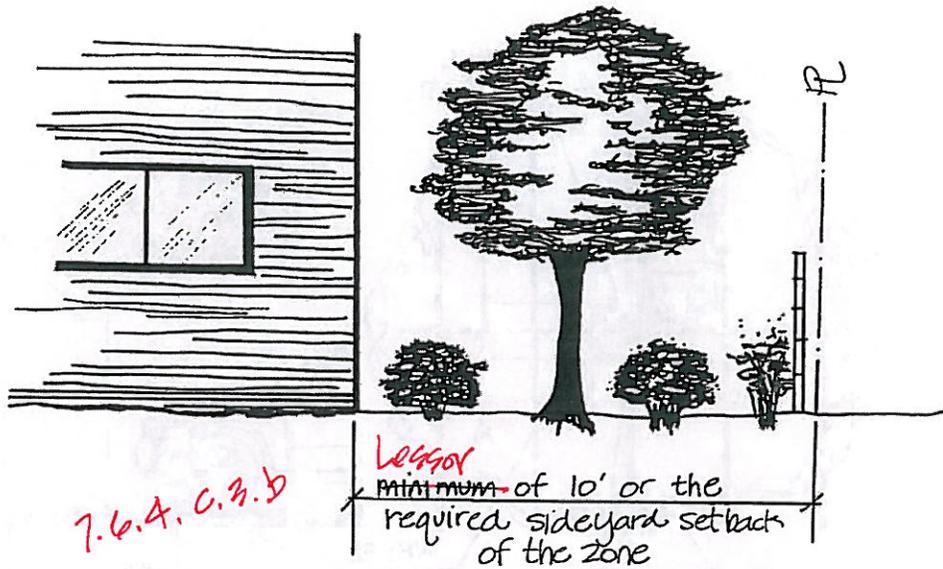


60° PARKING

* WHEEL STOP LOCATION AS SHOWN ON THIS PAGE FOR TREE LOCATIONS ONLY

Figure 5: Vehicular Use Area

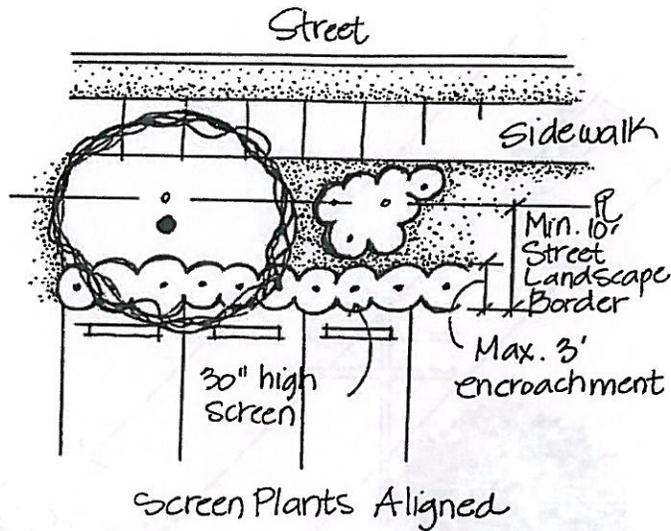
TM 5-01.3.3.B



N.T.S.

Figure 6: Interior Landscape Border

5-01.3.4.E



*Note: The area between the sidewalk & the property line may be included in the min. 10' Street Landscape Border if the City Engineer approves the placement of required landscaping in the public right of way.

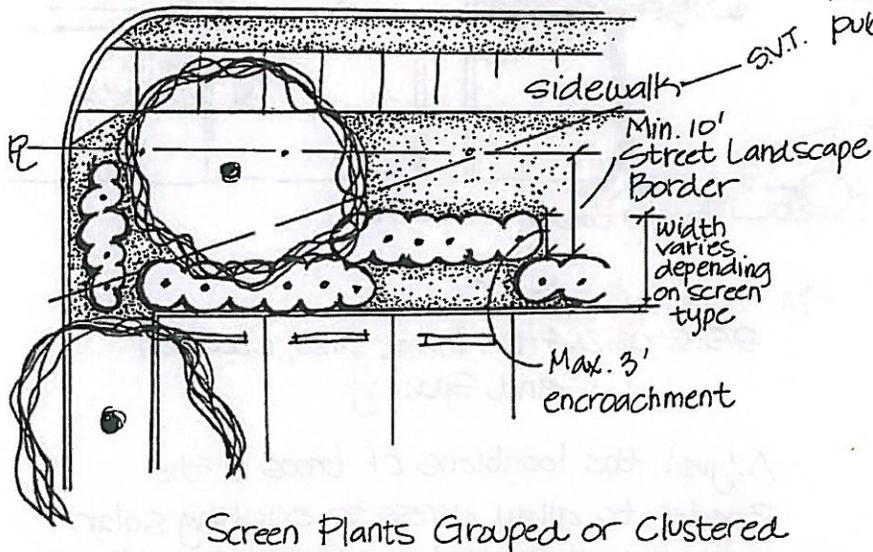
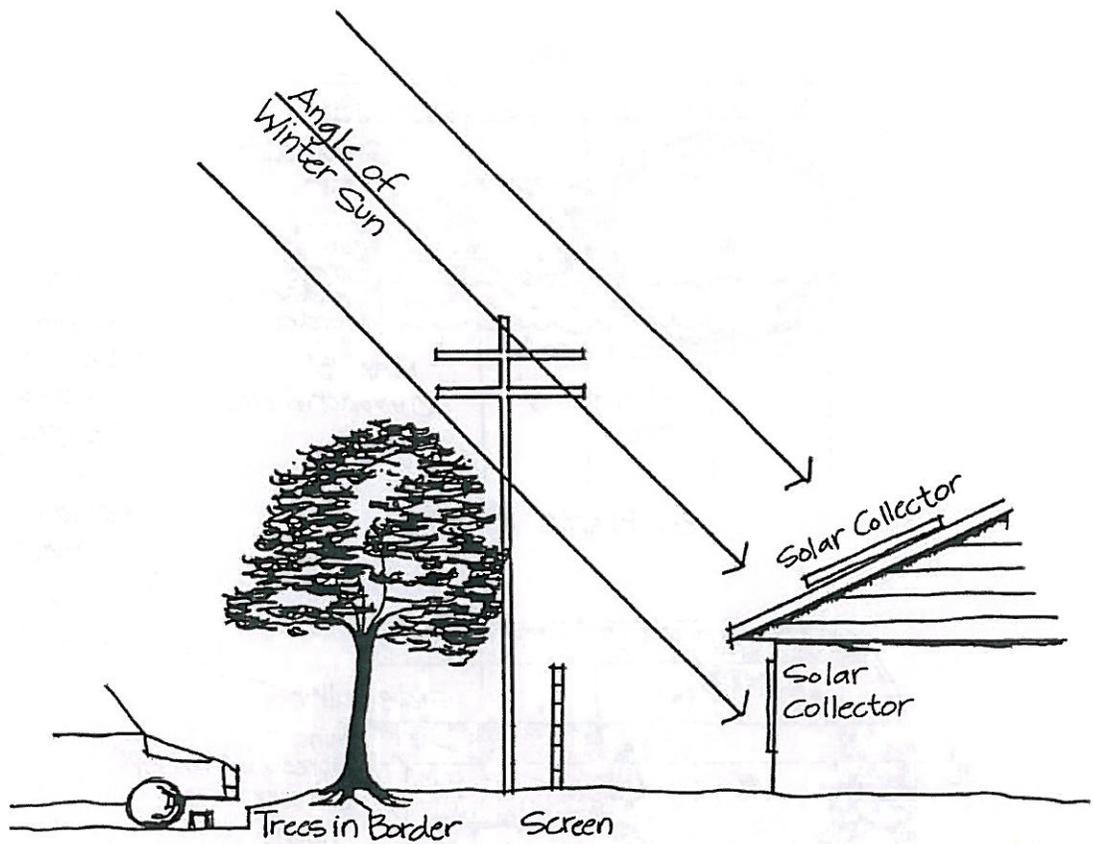


Figure 7: Plant Size, Location, and Spacing

5-01.3.5.A



TM 5-01.3.5.D N.T.S.

~~DS. 2-06.3.4.D.~~ Plant Size, Location
and Spacing

Adjust the locations of trees in the
Border to allow access to existing solar
collectors & prevent conflicts with utility
wires or easements.

Figure 8: Plant Size, Location, and Spacing

5-01.3.5.D

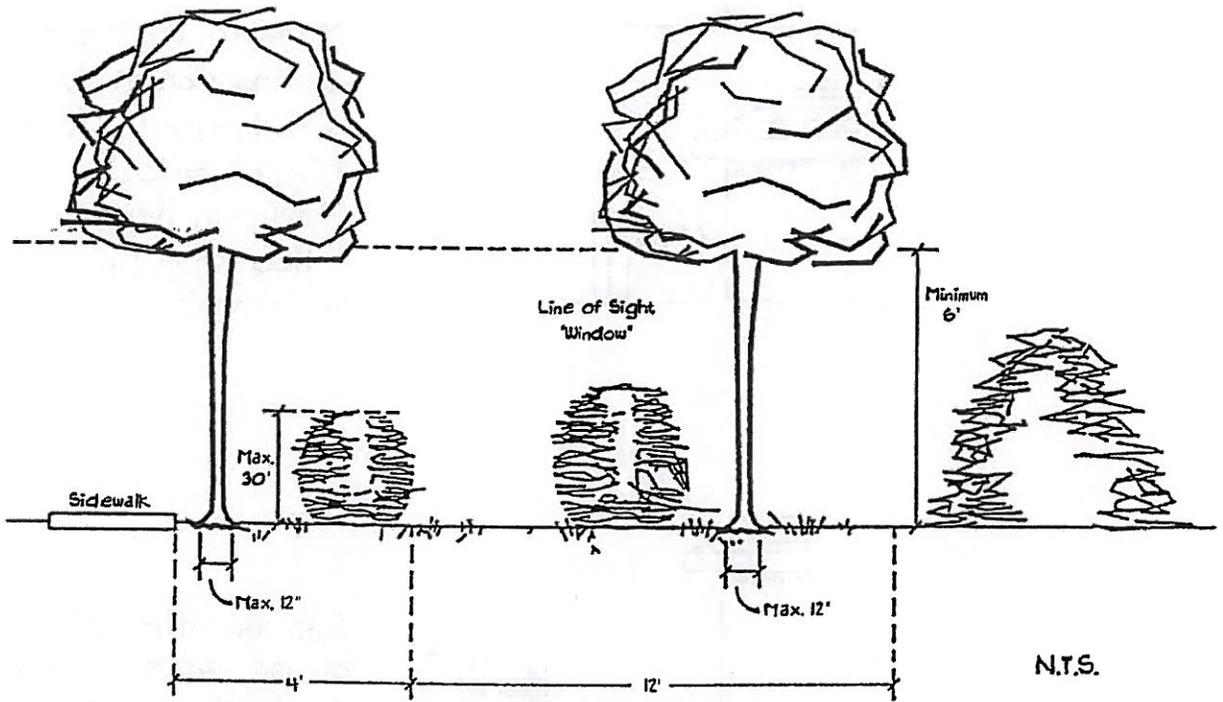
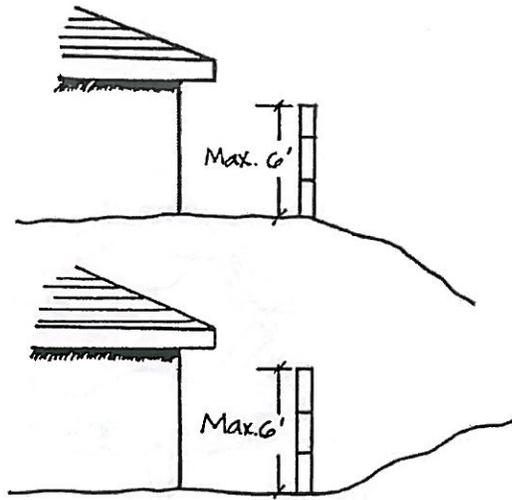


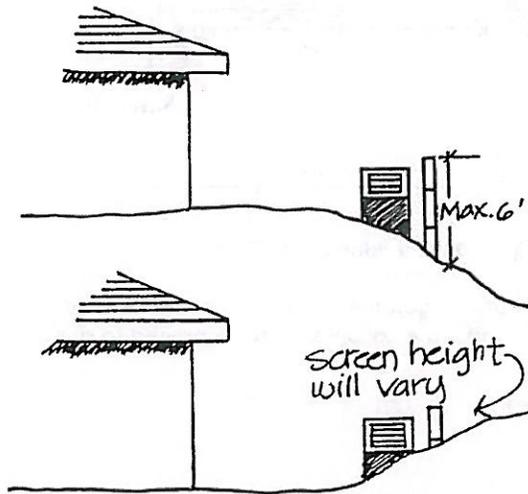
Figure 9: Pedestrian Safety Zone

Within four (4) feet of a pedestrian path, vegetation must be trimmed to thirty (30) inches in height. Within twelve (12) feet of a pedestrian path, tree canopies must be pruned to a minimum height of six (6) feet.

TM 5-01.3.6.E



Measure the height of the screen from the interior of the project site.
 Maximum height for a free-standing screen is 6 feet.



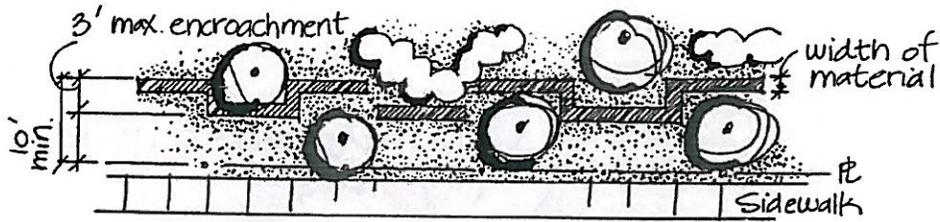
Measure the height of the screen for mechanical equipment to the highest point of the element.
 Maximum height for a free-standing screen is 6 feet.

Building Code ?

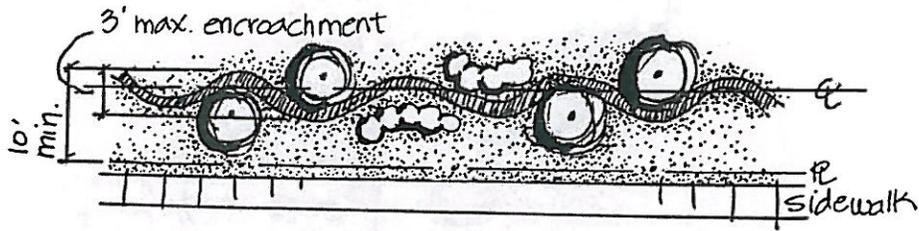
N.T.S.

Figure 11: Screening Standards

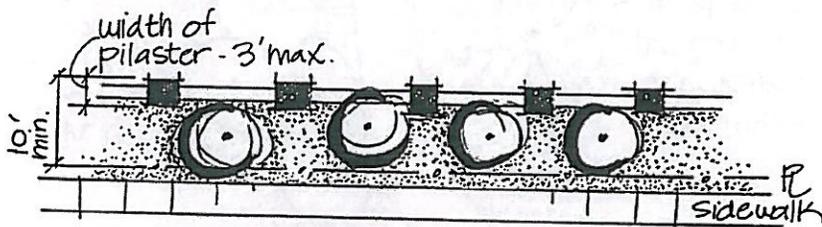
TM 5-01.3.7A



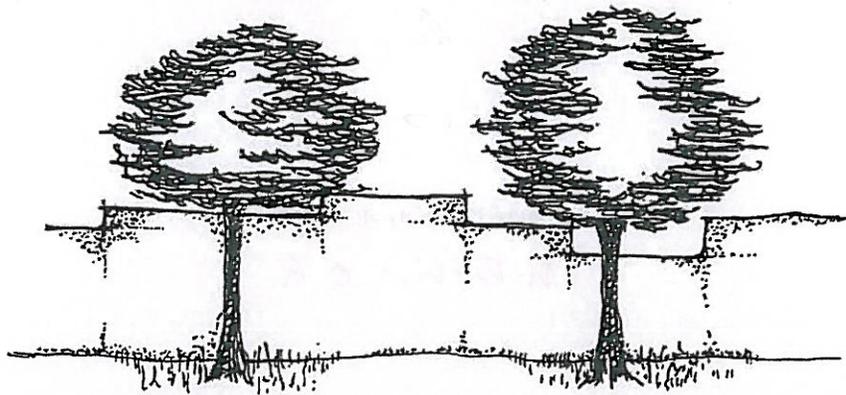
Offsets and Jogged Enclosures



Staggered Center Line



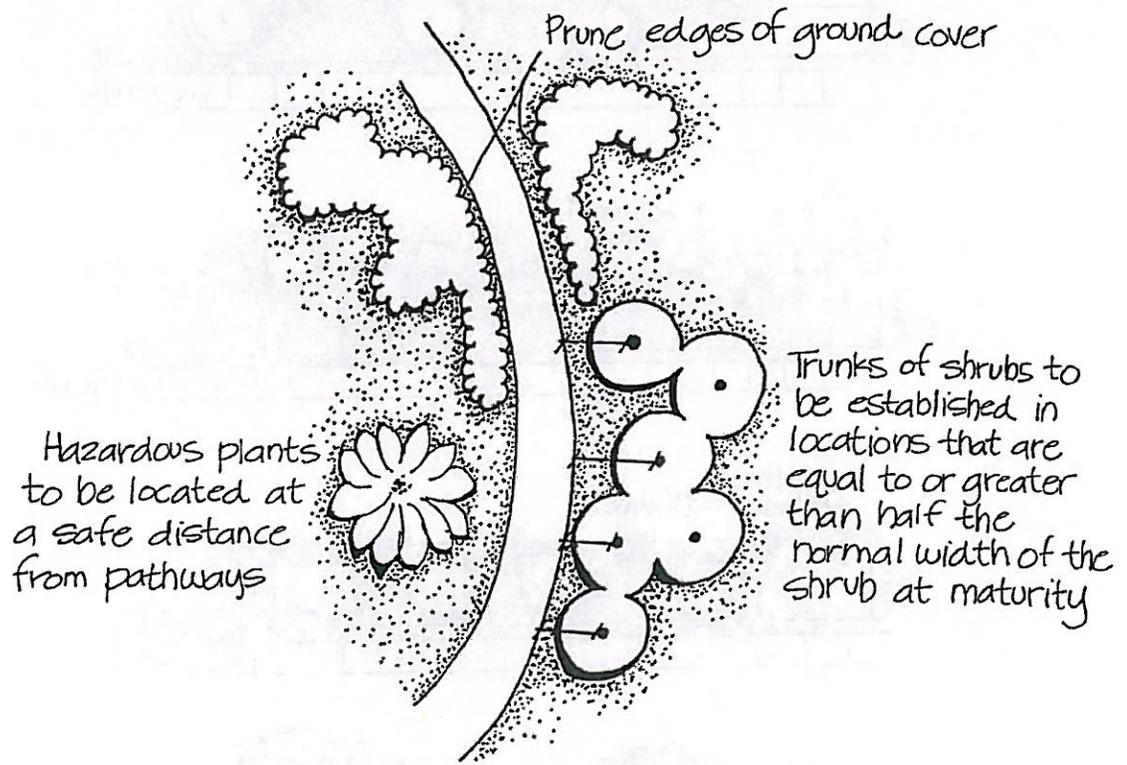
Pilasters



Vary the height of the screen (Max. 6' in height)

Figure 12: Screening Standards

TM 5-01.3.7.B



N.T.S.

Figure 13: Safety Standards

TM 5-01.3.8.A

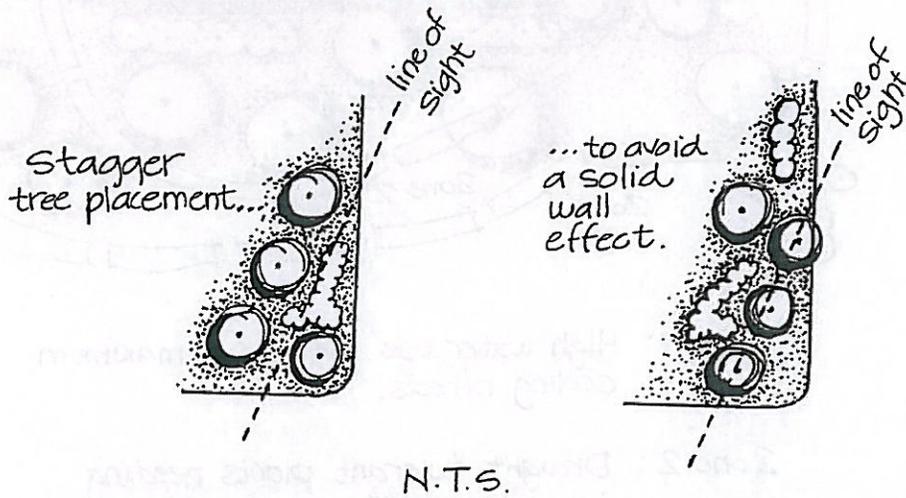
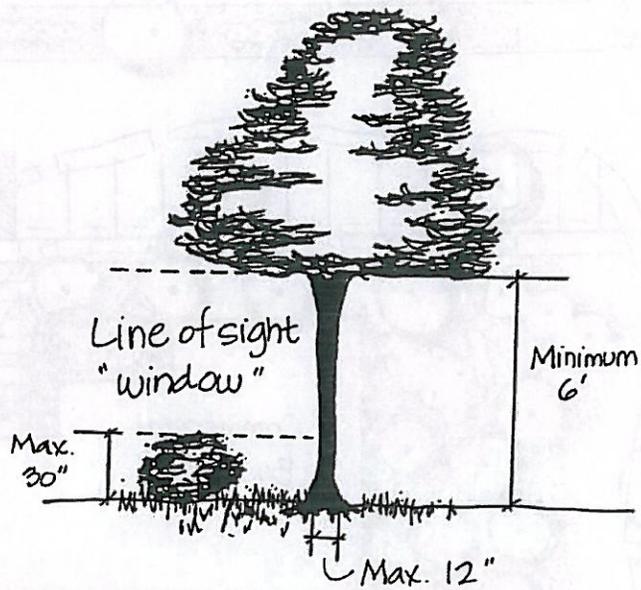
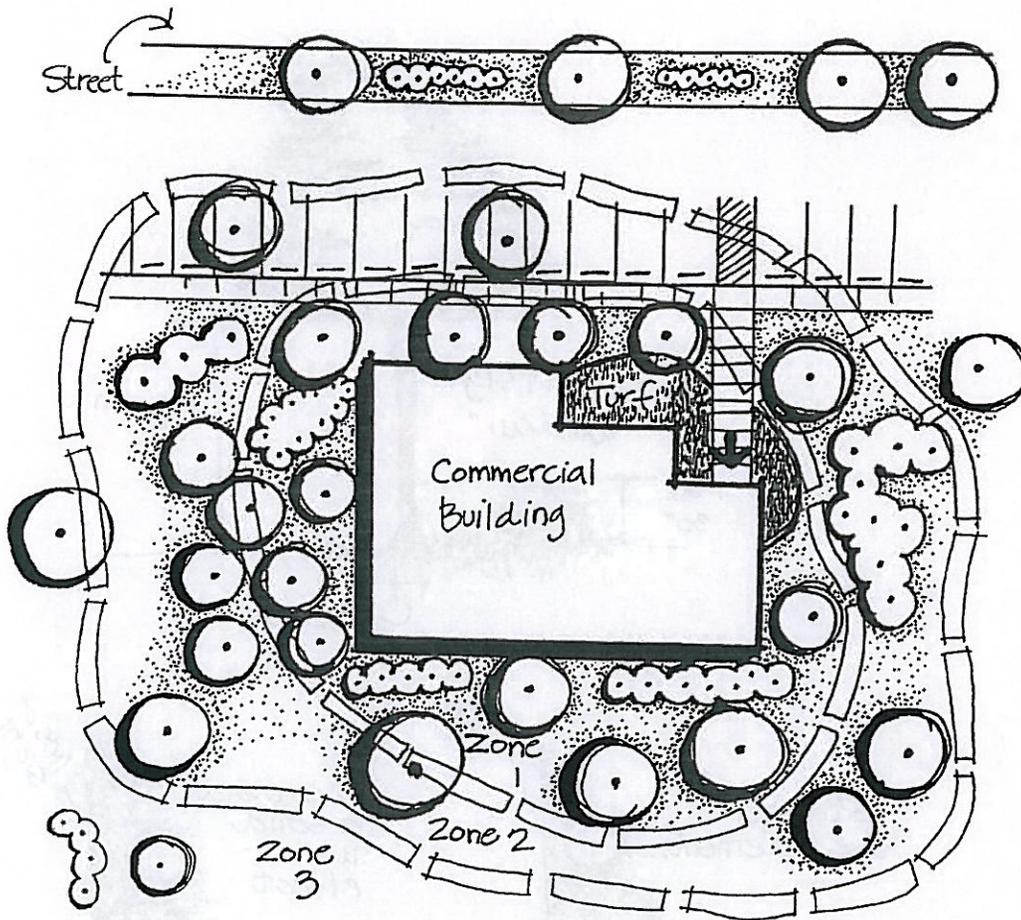


Figure 14: Safety Standards

A clear line of sight must be maintained above 30" and below 6' within a sight visibility triangle

TM 5-01.3.8.9



Zone 1: High water use plants for maximum cooling effects.

Zone 2: Drought tolerant plants needing irrigation until established.

Zone 3: Drought tolerant or indigenous plants needing no supplemental watering after established.

Figure 15: Zone Planting Concept

TM 5-01.4.1

CHUCK MARTIN
5/21/12

7.6.4. LANDSCAPE STANDARDS

A. Use of Drought-Tolerant Vegetation

1. Except as otherwise provided by this section, all plant material used for landscaping must be selected from the Drought-Tolerant Plant List located in Section ~~5~~ of the Technical Manual.

2. Areas of reseeding or hydroseeding after grading are subject to the Native Seed List standards of Section ~~5~~ of the Technical Manual.

3. ~~Except within the~~ Scenic Corridor Zone (SZC) where the use of native vegetation is required in the buffer area adjacent to a Scenic Router pursuant to Sec. 5.3.4, plants not listed on the Drought-Tolerant Plant List may be used as follows:

confusing

a. Scenic Corridor Zone

b. Existing Plants

Existing trees and shrubs may be incorporated in a landscaped area if their locations do not conflict with the plant location standards of this section;

c. Protected Riparian Areas¹³

Within Protected Riparian Areas pursuant to an approved mitigation or restoration plan; and,

d. Oasis Allowance

An oasis is an area where non-drought tolerant landscaping designs are permitted. Plants not listed on the Drought-Tolerant Plant List may be used in an oasis if the plants are grouped in separately programmed irrigation areas according to their water requirements. The location and maximum area on a site that may be used for oasis areas, including those located in a street landscape border, is determined as follows:

(1) Multifamily Residential Uses

Up to five percent of the site, or one 100 square feet per dwelling unit, or eight percent of the required open space, whichever is greater.

(2) All Other Uses

Equal to, but not more than, two and one-half percent of the site.

(3) Locational Standards - See Sec. 5-01.3, 2.B of the TSM

The following factors should be considered when determining the location of the oasis area.

- (a) Providing optimum exposure for site users by selecting areas near main buildings, pedestrian facilities, and active use areas;
- (b) Selecting areas that incorporate outdoor seating or assembly spaces;

DELETES

THIS IS A DEV. STAND DUPLICATE IN TSM

¹³ Staff recommends adding this provision.

- (c) Minimizing evaporation potential by choosing locations sheltered from wind and heat; and
- (d) Incorporating water harvesting system and storm water runoff design with oasis areas.

(4) Street Landscape Border

Oasis areas may be located in the street landscape border only if:

- (a) The oasis areas do not total more than five percent of the area of the street landscape border; and
- (b) The non-drought tolerant plants used in the oasis area are flowering bedding plants.

(5) Turf Areas of 10 Acres or Greater

Turf areas of ten acres or more are regulated by the state. The State Department of Water Resources shall be notified of cases where proposed turf or other high water uses exceed ten acres.

(6) Exceptions for Oasis Limitations

The oasis area limitations in Sec 7.6.4.A.3.c and turf area restrictions in this Section do not apply to:

- (a) Public parks and botanical gardens;
- (b) Outdoor recreation facilities, whether under public or private ownership, for public use, schools, day care centers;
- (c) The playing areas of golf courses;
- (d) Cemeteries; or
- (e) Mobile home parks, except in street landscape borders.

B. Vehicular Use Areas

Except as specifically exempted in Section 7.4.6.L, Screening and Landscaping Requirements in Vehicular Use Area, and this subsection, the standards in this subsection apply to all developments that provide more than four motor vehicle parking spaces.

DOES NOT MATCH SEC. 7.4.6.L

I. Canopy Trees in Vehicular Use Areas

a. General Standards

Within a vehicular use area, one canopy tree is required for each four motor vehicle parking spaces or fraction thereof. See Sec. 5-01.3.3 TSM

- (1) The canopy trees must be evenly distributed throughout the vehicular use area. Every parking space must be located within 40 feet of the trunk of a canopy tree (as measured from the center of the tree trunk).
- (2) Fifty percent of the trees required for landscape borders located within ten feet of the paved portion(s) of a vehicular use area may

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be counted towards both the minimum parking lot canopy tree standard and the landscape border canopy tree standard.¹⁴

~~(3) An unpaved planting area, which must be a minimum of 34 square feet in area and four feet in width, must be provided for each canopy tree, except as allowed in accordance with Section X of the Technical Manual.~~

(1) (4) Structurally covered or underground motor vehicle parking spaces may not be included in calculating the required number and location of canopy trees.

b. Alternative Standard

In lieu of the number of canopy trees required by subsection a. above, the applicant may provide the number of canopy trees needed to create a shade pattern caused by the trees at maturity and buildings that covers 50 percent of the paved area within the vehicular use area from 9:20 a.m. to 3:20 p.m. Mountain Standard Time on June 21.

c. Exemptions¹⁵

(1) For expansion of an existing development that is located on a lot of record on February 17, 1991, that is 10,000 square feet or less in size, the existing vehicular use areas are exempt from the canopy tree standard if the existing vehicular use area is in compliance with the zoning standards in effect at the time the existing vehicular use area was developed.

(2) For expansion of an existing development, the existing vehicular use areas are exempt from the canopy tree standard if the existing vehicular use area is subject to site plans approved between February 15, 1991, and August 2, 2004.

2. Plant Protection

Areas where plants are susceptible to injury by vehicular or pedestrian traffic must be protected by appropriate means, such as curbs, bollards, or low walls.

3. Planter Area

For each tree required by this code, a planter area with a minimum unpaved area of 34 square feet and a four-foot minimum width is required.

a. The measurement must always be within the planter area and may not include any material that defines the outer edge of the unpaved area.

b. The unpaved area may be covered with a permeable material or with grillwork, but air and moisture must be able to penetrate the soil.

c. Inert or vegetative ground cover must be used in planter areas not otherwise occupied by trees, shrubs, or grillwork.

DUPLICATE
TSM 5-01.3.3.B similar but different

TU ONLY

SEE TSM 5-01.3.3 for standards

¹⁴ Clarified version of text from DS 2-06.3.3.A.1 and 3.

¹⁵ The expansion provisions throughout the LUC will be evaluated for consolidation and standardization following adoption of the UDC. Consequently, this and other expansion provisions throughout the LUC/UDC will be deleted from their respective sections and replaced with references to a consolidated Expansion section.

4. **Shading of Paved Areas**
Canopy trees planted within and adjacent to vehicular use areas should be planted in a manner that at maturity they afford the greatest amount of shade to the paved areas.

5. **Vehicle Overhangs**
Parking spaces may be designed so that the front of a vehicle overhangs into planter areas that are within a vehicular use area but cannot overhang into the street landscape border. ~~When planted within the vehicular use area, trees must be located at the edge and between vehicle spaces, such as the common corner of four perpendicular spaces that face each other (see Figure 7.6.9-B).~~ *See TSM 5-01.3.3.E.*

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a. The maximum amount of overhang is the same measurement as the parking space wheel stop location, as permitted in Sec. 7.4.6.H.
b. The planter area must have a raised border four inches high to prohibit the tires of the vehicle from encroaching onto the planter. Standard wheel barriers are acceptable but not encouraged, as they can be easily moved and could allow damage to the tree. *DELETED*
c. Only trees with single trunks may be planted within these planters because trees with multiple trunks need wider areas of growth and may interfere with the parked vehicles.

C. **Landscape Borders**
There are two types of landscape borders: street landscape borders and interior landscape borders.

1. **All Landscape Borders**
The following apply to all landscape borders:

DOES NOT MATCH 5-01.3.4.D.1

- a. One canopy tree is required for every 33 linear feet of landscape border or fraction thereof, excluding vehicular ingress or egress points.
- b. A minimum of one canopy tree is required within a required landscape border.
- c. Trees may be planted at varying distances apart.

2. **Street Landscape Borders**
To enhance the visual appearance of the streetscape, a street landscape border is required in accordance with Table 7.6.4-1 along the street frontage of a site as follows:

a. **Minimum Width**
Street landscape borders must be a minimum of ten feet wide as measured from the street property line. On streets designated as Major Streets and Routes (MS&R), the street landscape border must be measured from the future MS&R right-of-way line as determined by Section 5.4.4.

TABLE 7.6.4-I: LANDSCAPE BORDER AND SCREENING STANDARDS - SECTIONS 7.6.4.C AND 7.6.5						
Land Use	Adjacent Street or Zone (Developed or Vacant)					
	Streets		Zones [1]			
	MS&R	Non-MS&R	Residential	Office	Commercial	Industrial
Mechanical Equipment	(Screened entirely from view along the street frontage.)					---
Mobile Homes; R.V. Storage	[2] 6' screen	[2] 6' screen	6' screen	5' screen	---	---
Multiunit Storage Facility	[2] 6' screen	[2] 6' screen	6' wall	6' wall	---	---
Outdoor Display of Merchandise, Sales or Rental	[2] 30" screen	[2] 5' screen	5' wall	5' screen	---	---
Billboards and Outdoor Storage	[2] 6' screen	[2] 6' screen	6' wall	6' screen	6' screen	---
Parking Lots	[2] 30" screen	[2] 5' screen	5' wall	5' wall	---	---
Refuse Storage and Laundry Yards	[2] 6' screen	[2] 6' screen	6' wall	6' wall	6' screen	---
Service Bays	[2] 30" screen	[2] 5' screen	5' wall	5' wall	---	---
Utility Service	[2] 6' screen	[2] 6' screen	6' wall	6' wall	6' screen	---

KEY AND NOTES (for the purposes of this Table)
 Residential Zones: OS, IR, RH, SR, SH, RX-1, RX-2, R-1, R-2, MH-1, MH-2, R-3, MU
 Commercial Zones: P, RV, NC, RVC, C-1, C-2, C-3, OCR-1, OCR-2
 Office Zones: O-1, O-2, O-3
 Industrial Zones: P-I, I-1, I-2

[1] For development adjacent to PAD zones, see Sec. 7.6.4.C.4.f.
 [2] Street Landscape or Interior Landscape Border required along site boundary.
 [3] Only applies to subdivisions of 8 or more lots. See Sec. 7.6.4.C.2.b.

- b. The minimum required width of an interior landscape border is the lesser of ten feet or the width of the building setback required by the UDC for the proposed building or use.
- c. Where interior vehicle parking spaces or parking area access lanes (PAALs) are located next to the property line or where the interior landscape border conflicts with a utility easement, an interior landscape border is not be required if all of the following requirements are met:
 - (1) An equivalent number of trees are planted elsewhere on the site between the building(s) and the property line, or if the use on the site does not include buildings, the required canopy trees are located between the principal use and the property line;
 - (2) The trees are evenly distributed over the site; and
 - (3) The minimum planting area required in Sec. 7.6.4.B.3 is provided for each canopy tree.
- d. Detention/retention facilities may be incorporated into the interior landscape border if they are designed in accordance with Sec. 7.6.6.C.1. ?

4. **Exceptions to Landscape Border Standards** *defined in Art. 11.4.5*

a. **Downtown Parking District**

Within the Downtown Parking District, the standards for landscape borders are as provided as follows:

- (1) A street landscape border, measured from the development side of the future sidewalk location, must be maintained along all public right-of-way frontages of vehicular use areas and parking structures.
- (2) A street landscape border is not be required if the ground level story of a building containing a parking structure is not used for motor vehicle parking or if the parking structure is completely screened and enclosed by a masonry wall.
- (3) An interior landscape border is required only if the adjacent zone or land use is residential.

b. **Expansions¹⁹**

For expansions of an existing development located on a lot of record on February 17, 1991, 10,000 square feet or less in size, the development is subject only to the following landscape border standards.

- (1) On streets other than a Scenic or Gateway Route (refer to Sections 5.3.4 and 5.5.4), the width of a street landscape border must be a minimum of five feet. With the permission of the City Engineer or designee, up to one-half the street landscape border width may be located in the public right-of-way or in the Major Streets and Routes (MS&R) right-of-way area.
- (2) Interior landscape borders are not be required in existing vehicular use areas, if the existing vehicular use area was developed in compliance with the zoning standards in effect at the time of development.

c. **Interior Landscape Border**

Interior landscape borders are not required as follows:

- (1) Around interior pads within a site or between adjacent sites with common driveways, shared motor vehicle parking, or vehicular access easements or between two adjacent nonresidential uses of equal intensity as determined by Table 7.6.4-1.
- (2) Where an alley, drainageway, or other right-of-way ten feet or more in width physically separates the site from an adjacent property.
- (3) Where, prior to February 15, 1991, an open space area was provided as a buffer between the site and an adjacent less intensive use or zone, if the open space area is:

¹⁹ The expansion provisions throughout the LUC will be evaluated for consolidation and standardization following adoption of the UDC. Consequently, this and other expansion provisions throughout the LUC/UDC will be deleted from their respective sections and replaced with references to a consolidated Expansion section.

- (a) At least ten feet wide; and
 - (b) Restricted in perpetuity to natural or landscaped open space use through dedication to the public, deed restriction, or covenant running with the land.
- (4) Between two similar uses, whether or not the uses are within the same zoning classification.
- d. **Street Landscape Border**
Street landscape borders are not be required along street frontages where the landscaping standards of Section 5.3.4, SCZ Buffer Area, apply.
- e. **Historic Preservation Zone (HPZ)**
The Planning and Development Services Department Director may grant a complete or partial exception to the landscape border standards for development within a HPZ. The exceptions may be granted if, after completion of the HPZ development review required by the HPZ, the PDSO Director determines that the standards are not compatible with the character and design elements of the HPZ.
- f. **Planned Area Development (PAD)**
For development adjacent to a Planned Area Development (PAD) zone, the landscaping standards are those which are required for development adjacent to residential zones, except where an adjacent PAD District has been developed or planned for nonresidential uses. In that case, the landscaping standards are based on the adjacent land use.

D. **Use of Turf**

1. Except as provided by Sec 7.6.4.A.3.c(6), turf areas are allowed only within an oasis.
2. Turf areas must be located to mitigate glare and reduce heat near buildings and their openings, including windows and patios, or to serve as an active play area.

E. **Plant Size, Location, and Spacing**

Required plant characteristics, sizes, and standards for various landscape applications are as provided below.²⁰ *See Sec. 5-01.3.F of the TSM for standards*

1. **Size of Vegetation**

When vegetation is used to satisfy a screen standard, the size of the plant material specified must be a minimum of five gallon container size and be of a type that will maintain an opaque screen year round.

2. **Screen Planting**

- a. Screen planting may be aligned, clustered, or unevenly spaced to provide interest, as long as the plants provide a continuous and opaque screen, at maturity (see Figure 7.6.9-C).

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DELETE

²⁰ Text from DS 2-06.3.5.

b. When vegetation is proposed for screening purposes, an appropriate width of planter area must be provided in addition to the width of the landscape border. The required width of the screen is based on the growth pattern of the plant material chosen. For example, if Nerium oleander is specified, the minimum width that will have to be available is six feet, as that plant grows as wide as it does high. (See Figure 7.6.9-C)

c. Vegetation used to meet the screening standards is not included in the ground cover calculation as provided in Section X of the Technical Manual.

3. Calculation of Plant Growth Coverage

a. For the calculation of plant growth coverage, two years' growth is used as a base for shrubs and ground covers. Ten years' growth is used for trees.

b. If the standard is for a certain size area of landscaping or for a purpose such as dust control, the plant materials used must be installed with the appropriate spacing and cover more than 50 percent of the area with vegetation. Applicant must indicate "on center" (o.c.) planting standards for all ground cover.

4. Size of Trees

Trees that are located in areas of required landscaping must be a minimum of 15 gallon container size. Palms must have a minimum trunk height of five feet from soil line to the bottom of the crown.

5. Protection of Sidewalks

Trees planted near sidewalks or curbs must be planted at a sufficient distance from the structural improvement to prevent pavement upheaval or soil settling. Where the distance is not available or where the design places the trees closer to the improvement, suitable barriers to the root system to mitigate pavement upheaval or soil settling must be installed with the landscaping. If the trees are in the public right-of-way, the root barriers must be approved by the City Engineer or designee.

6. Shrubs Not Used as Screen

Shrubs in areas of required landscaping other than for opaque screening must be a minimum of one gallon container size, with 20 percent of the required number to be five gallon container size or larger.

Size of Ground Cover

Ground cover in areas of required landscaping must be a minimum of one gallon container size or in flats if the watering techniques allow.

8. Refuse Dumpsters and Loading Spaces

Trees must be planted an appropriate distance from refuse dumpster locations and loading spaces so that the tree canopy, at maturity, does not obstruct service.

9. High Pollen-Producing Plants

Use of high pollen-producing plants must be kept to a minimum on the site. These plant materials, when used, should not be concentrated in any one

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location. Pima County health ordinances regulating the use, maintenance, and sale of specific plant species, such as bermuda grass, mulberry trees, and olive trees, shall also apply in the City of Tucson.

10. Winter Planting Schedule

Landscape designs for developments that are projected for construction and occupancy during the winter months shall avoid using frost-sensitive vegetative ground cover. If it cannot be avoided, planting schedules must be discussed with the PDS to establish conditions of occupancy.

DELETES

11. Conflicts with Utilities and Solar Access

Trees and shrubs must be selected and located so that, at maturity, they do not interfere with existing on-site or off-site utility service lines or utility easements or with solar access, as defined in Sec. 11.4, to an adjacent property (see Figure 7.6.9-D).

11.4.20

ADD THIS ITEM TO 5-01.3.5.D

F. Plant Cover/Dust Control

All disturbed, grubbed, graded, or bladed areas not otherwise improved must be landscaped, reseeded, or treated with a layer of inorganic or organic ground cover to help reduce dust pollution.

1. Ground surfaces in planting beds, planters, medians, or tree understory within a landscaped area that are not covered with shrubs, accent plants, vines, ground cover, or other vegetation from the Drought Tolerant Plant List must be treated with an inorganic ground cover.

2. Unless maintained as undisturbed natural desert, all portions of a site not occupied by buildings, structures, vehicular use areas, oasis areas, pedestrian circulation areas, or required landscape elements must be landscaped with vegetation from the Drought Tolerant Plant List, reseeded with a native seed mix, or treated with an inorganic ground cover and maintained in a clean condition.

NEW

NEW

3. Unless maintained as undisturbed natural desert, future building pads within a phased development must be temporarily landscaped with vegetation from the Drought-Tolerant Plant List, reseeded with a native seed mix, or treated with an appropriate inorganic ground cover and maintained in a clean condition as required by Sec. 7003(e) of the Uniform Building Code (UBC).

If vegetative ground cover is not intended, a minimum two-inch layer of organic or inorganic material (i.e., decomposed granite, rock mulch, or other material) is required as ground cover under and around the vegetation in landscaped areas to help cool soil areas, reduce evaporation, and retard weed growth. Existing areas of undisturbed native vegetation retained on the site are not required to have the soil mulched or amended.

G. Crime Prevention and Safety Guidelines

Vehicular and pedestrian safety factors from the following list must be incorporated into all landscape designs.. *See Sec. 5-01.3.6 of the TSM for standards*

1. The positioning, location, and type of plant material, screening, and other landscape elements should allow for natural surveillance of the outdoor

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- spaces from within buildings, from outdoor locations on-site, and from adjacent buildings, sites, and rights-of-way.
2. Landscaping and screening should complement efforts to define public, semipublic, and private spaces.
 3. Entrances to and exits from buildings or open spaces around buildings, including pedestrian walkways, should be open and in view of the surrounding neighboring or adjacent sites in order to reduce opportunities for crime.
 4. Curbs, sidewalks, and landscaped trails should be used to define public, semipublic, and private areas.
 5. Property owner/occupant areas of influence should be defined through the use of design elements, such as walls, fences, changes in level or grade, lights, color, or change in paving texture.
 6. To allow maximum visibility and surveillance of the development, screening should be used that is no higher than required by this section unless high enough to create an effective barrier to entry. *DELETE*
 7. In areas adjacent to doors and windows, applicants should select plant material of such height to retain visibility of building openings from the street or from other development (e.g., less than 30 inches or with a greater than six foot space between the ground and the canopy).
 8. Shrubs and ground cover located within four feet of the edge of a walkway may not exceed 30 inches in height, except where other standards call for a greater height. An effort should be made to avoid a design requiring a greater height. Trees located less than 12 feet from the edge of a walkway must be trimmed to a minimum six foot canopy height. (See Figure 7.6.9-E.)
 9. Use of barrier plants (see Figure 7.6.9-F) in areas adjacent to walkways is recommended with consideration for pedestrian safety in compliance with Sec. 7.6.5 E. *THERE IS NO FIGURE F*
 10. Unless adjacent to a pedestrian path, barrier plants must be planted below and extending at least 12 inches beyond each side of windows. Plant materials in this area may be no higher than the sill height of the window.

H. Use of the Public Right-of-Way

Nonrequired landscaping may be placed in the public right-of-way, if the following standards are met.

1. The landscaping is approved by the City Engineer or designee and complies with the City Engineer's standards on construction, irrigation, location, and plant type.
2. All vegetation complies with the standards of Sec. 7.6.4.
3. The landscaping does not interfere with the use of the sidewalk.

7.6.5. SCREENING STANDARDS

The purpose of screening is to provide visual barriers, noise reduction, and to provide privacy.

*ADD: I. Sight Visibility for Landscape Borders
Text from 7.6.5.D*

A. When Required

Screening for individual land uses and zones must be provided as determined in Table 7.6.4-1 and in addition to the required landscape borders. Screening is not required between similar uses in accordance with Table 7.6.4-l.

B. Location

1. Along interior lot lines of the site, the required perimeter screens must be located on the property line, unless the screen is provided between the property line and the use and a landscaped area of a minimum width of 20 feet is provided between the screen and the property line. In situations where a utility or drainage easement runs along a property line and the width of easement lying within a site is not used as part of the site, then the required screen may be located at the easement line.²¹

NEW SENTENCES

2. Whether or not required by this section, screens along a street frontage must be located on the development side of the street landscape border so that they do not obstruct the view of the street landscape border from the street.

3. Screens may be located within the street landscape border, if the following standards are met. *See Sec. E-01.3.7 of the TSM for standards*

a. Minimum Width

The street landscape border is a minimum of ten feet wide.

b. Vegetative Screens

Hedges and other vegetative screens may not extend more than three feet into the street landscape border. If, based on the growing characteristics of the type of plant used, the ultimate width of the vegetative screen will be greater than three feet, the vegetative screen must be sufficiently set back from the landscape border to accommodate the wider growth.

DELETE

c. Non-vegetative Screens

Fences or walls constructed in a single continuous line may not extend into a street landscape border more than the actual width of the fence or wall. Where a fence or wall incorporates offsets or similar design features, a screen may extend a maximum of three feet into the street landscape border (See Figure 7.6.9-H).

d. Earth Berms

(1) Where earth berms are used, the crest of the berm must be located on site and no closer than one foot from the street property line or, on sites subject to the MS&R zone, the MS&R right-of-way line.

(2) If berms are used in conjunction with vegetation or a retaining wall to achieve the screen, the vegetation or wall has to occur at the area of the landscape border farthest away from the property line in accordance with Section X of the Technical Manual.²²

21 Final sentence is from DS 2-06.3.7.C.

22 Final four items in list are from DS 2-06.3.7.B.5.d.

- (3) Bermed areas, front and back sides, must be landscaped to comply with minimum standards when located within the street landscape border area. Vegetation also minimizes erosion.
- (4) If the toe of the berm slope abuts a sidewalk or pedestrian area, design precautions must be implemented to prevent water from washing debris, dirt, rocks, etc., onto the sidewalk or eroding the pedestrian path.
- (5) When berms are used, design solutions are to be provided accomplishing screening standards if the berm cannot satisfy the standards (i.e., at the ends where the berm slopes or if the berm is cut to place a tree).

C. Height Measurement²³

The height of a screen required under Table 7.6.4-1 is measured as follows.

1. The height of a screen adjacent to a property line or along a street frontage is the vertical distance measured on the development side of the screen from the design grade at the base of the screen to the top of the screen.
2. For all structures that are not buildings (e.g., ground mounted mechanical equipment) that are visible from the street frontage, the screen height is measured from the design grade at the base of the structure to its highest point.
3. The maximum permitted height of a free-standing screen is six feet.²⁴

Building Code?

D. Sight Visibility Triangle

Any screen higher than 30 inches must be located outside of the sight visibility triangle (see Section X of the Technical Manual). However, trees may be installed within those areas provided that:

The maximum height of

is within

Sec. 5-01.3.8.G

{this is plant material} move to 7.6.4.I

1. The trunk caliper, at maturity, does not exceed 12 inches in diameter;
2. The lowest branch of any tree is at least six feet above the grade of the street or driveway, whichever is the determining factor in the sight visibility triangle; and
3. Trees are not planted in a line that could result in a solid wall effect when viewed at an angle.

E. Safety Standards²⁶ - Sec Sec. 5-01.3.8 of the TSM

Vegetation, such as those with spines, thorns, or needles, that may present hazards to pedestrians, bicycles, or vehicles must be planted a safe distance from the outer branch tips to the edge of a walkway, bike lane or path, roadway, or parking area access lane (PAAL). The growing characteristics of the vegetation must be taken into consideration when determining this distance (see Figure 7.6.9-1).

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²³ As a rule of measurement, this section could be moved to Article 6: Dimensional Standards and Measurements but we retained it here because it is short and specific to this section and more convenient for the reader.

²⁴ Text added from Figure 7.6.9-G (standard not otherwise found in the LUC).

²⁵ Exception for trees from DS 2-06.3.8.

²⁶ Text from DS 2-06.3.8.

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2. Shrubs or ground cover planted adjacent to a walkway, driveway, bicycle path, or street must be placed with the plant center at a distance equal to or greater than one-half the normal width of the plant, at maturity.
3. Shrubs or ground cover that spreads must be kept pruned to prevent encroachment upon walkways, bicycle paths, driveways, or streets.
4. Trees with the potential for overhanging a walkway, driveway, bicycle path, parking space, or street must be of a type that, at maturity, provides a canopy with an understory height clearance of eight feet for walkways and bicycle paths, 12 feet for driveways and streets, and 15 feet for loading spaces. The height clearance shall be maintained by pruning during the tree's active growth period or when necessary.
5. In addition to the sight visibility triangles, no planned area may create a hazard by obstructing a driver's view of oncoming pedestrians, bicyclists, or vehicles.

NEW - TOO VAGUE

F. Phased Development

Screening for phased development is required as follows:

1. The perimeter screening element along the property lines must be installed during development of the first phase; or
2. Where the undisturbed natural desert is maintained in areas to be developed in subsequent phases, a temporary screen may be erected around the perimeter of the initial phase, subject to the following.
 - a. Temporary screening may be an opaque wood fence, a chain link fence with wood slats, or any equivalent type of screen.
 - b. Temporary screening must be replaced by a permanent screen if construction of the subsequent phases is not started within two years of the date the original phase received a certificate of occupancy.

G. Exceptions to Screening Standards

1. The required screen along a street frontage for vehicular use and outdoor display areas may be lowered to 30 inches if the site is located:
 - a. On a street that is not designated as an MS&R; and
 - b. Across the street from nonresidential uses or unimproved, nonresidentially zoned parcels.
2. Where a building wall abuts a street landscape border, the building may serve as the required screen.
3. The PDSD Director may grant a partial or complete exception to the screening standards for development within a Historic Preservation Zone. The exceptions may be granted if, after completion of the historic district development review required by Historic Preservation Zone, the PDSD Director determines that the standards are not compatible with the character of the historic district.

4. A partial or complete exception may be granted to the screening standards for uses with extensive landscaped open space, including parks, cemeteries, or golf courses.
5. For development adjacent to a Planned Area Development (PAD), the screening standards are those that are required for development adjacent to residential zones, except where an adjacent PAD has been developed or planned for nonresidential uses. In that case, the required screening standards are based on the adjacent land use.

H. Screening Materials

1. Walls

- a. All walls required by this section must be of masonry material or masonry with a stucco or textured finish.
- b. Decorative openings may be incorporated into the upper 20 percent of an otherwise solid masonry wall located along a street frontage.

2. Earth Berms

The slope of an earth berm, used alone or in combination with a retaining wall, may not exceed one foot of rise for every three feet of linear distance. The width of an earth berm must be self-stabilizing.

3. Hedges and Other Vegetation Screens

- a. Plants used for screening purposes may not be smaller than a five gallon can size when planted. The plants may be aligned, or unevenly spaced, but must provide a continuous screen at maturity within two years.
- b. Vegetative screens shall be planted in areas not less than three feet in width.

4. Fences

- a. Wood fences shall provide a continuous opaque screen.
- b. Nonwood fences, such as chain link, may not be used along a street frontage along a Gateway Route or within the SCZ.
- c. Nonwood fences shall have wooden slat inserts, or a similar material with equal or better durability, to provide opacity.

7.6.6. USE OF WATER

The following standards conserve water and assist in carrying out xeriscape design principles.

A. Water Conservation Design

Landscape plans shall incorporate water-conserving designs. A water-conserving design must take into account soil and drainage factors and microclimates, includes grouping of plants with similar water standards and use of efficient irrigation systems, and attempts to preserve on-site vegetation.

B. Use of Reclaimed Water

1. Reclaimed water must be used in new and expanded development in accordance with the adopted Mayor and Council Water Policies and other applicable state and local standards.

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IN THIS ART.
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TOOK OUT TUCSON WATER REVIEW - GOOD

2. The availability of a reclaimed water service does not confer any right to plant turf areas except as permitted under this Section 7.6.4.D.

C. Storm Water Runoff

1. Storm water detention/retention basins not integrated with paved vehicular use areas must be designed in accordance with the Storm Water Detention Retention Manual.
2. Grading, hydrology, and landscape structural plans must be integrated to make maximum use of site storm water runoff for supplemental on-site irrigation purposes. The landscape plan shall indicate use of all runoff, from individual catch basins around single trees to basins accepting flow from an entire vehicular use area or roof area.

WATER HARVESTING IN LANDSCAPE AREAS?

D. Ornamental Water Features

1. Ornamental water features, such as fountains or ponds, may be used, if all the following conditions are met:
 - a. The total water surface area does not exceed one percent of the net site area of the development.
 - b. The water feature is located within the oasis area.
 - c. The sum of the square feet of water surface area and the square feet of turf area does not exceed the total allowed square feet for the oasis allowance.
 - d. Water in moving water features is recycled through the feature.
 - e. The water feature is designed to prevent water seepage or leaking.
2. This section does not apply to swimming pools or spas.

E. Irrigation

1. A water-conserving irrigation system is required for all new landscape plantings. For sites that are larger than one acre and on which the gross floor area of all buildings is more than 10,000 square feet, an underground irrigation system is required.
2. Storm water and runoff harvesting to supplement drip irrigation are required elements of the irrigation system for both new plantings and preserved vegetation.
3. An irrigation plan must be submitted together with the landscape plan required in Sec. 7.6.9.B and must comply with the standards below in TSM

d. System Specifications²⁷

- (1) The source of irrigation water, whether potable or reclaimed, must be indicated on the irrigation plan.
- (2) Rigid irrigation pipes and flexible drip system irrigation lines under paved surfaces must be contained in pipe sleeves.

Sec. 5-01.4.4

TSM ONLY

DELETED

²⁷ Text from DS 2-06.5.4.A.

- (3) Pipes or lines carrying water under constant pressure must be buried to a minimum depth of 24 inches. Those that are under intermittent pressure must be buried to a minimum depth of 18 inches.
- (4) Nonpressure polyethylene lines must be buried to a minimum depth of eight inches. Nonpressure PVC lines must be buried to a minimum depth of 12 inches.
- (5) Turf, shrub, and bubbler heads closer than 12 inches to any paved surface must be pop-up heads.
- (6) Turf, shrub, and bubbler heads located within 24 inches of any paved surface must be installed with a system that allows the riser assembly to absorb impacts and return to normal position.
- (7) Spray irrigation systems may be used only in the oasis area for turf. These areas must be served by low precipitation rates. Matched precipitation rate heads should be used.
- (8) Temporary spray irrigation systems may be used to establish hydroseeded areas. All other plant material, excluding turf, must be irrigated with drip irrigation or low-flow bubblers. Drip irrigation is encouraged. The systems will be reviewed on a case-by-case basis.
- (9) Trees and shrubs outside of areas of spray irrigation must be irrigated with low-flow bubblers or emitters.
- (10) Unless required under the rainwater harvesting ordinance, rain-sensing and moisture-sensing devices are encouraged.

TSM ONLY

System Design and Layout²⁸

DELETE

- (1) Irrigation systems must be designed with attention to prevailing winds, degree of slope, type of soil, soil percolation (infiltration), season, and type of vegetation to be watered. These design constraints, and any others that may be specific to the site, must be clearly indicated on all irrigation documents.
- (2) Spray irrigation systems shall be designed to provide 100 percent head-to-head coverage of the area of irrigation to avoid dry spots and overspray onto any paved or unplanted surface.
- (3) Areas of different water requirements, such as the oasis, trees and shrubs, the vehicular use area, landscape borders, and native vegetation areas, must be controlled by separate remote control valves.
- (4) The design of irrigation systems and irrigation schedules should attempt to match application rates with infiltration rates in order to minimize runoff and reduce evaporation.
- (5) Sprinkler heads and nozzles within each control valve should have matching precipitation rates.

²⁸ Text from DS 2-06.5.4.B.

TSM ONLY

- (6) Spray irrigation systems may not be installed in planting strips less than ten feet wide. Strip spray heads are not be allowed.
- (7) Irrigation timers must be set for irrigation cycles between 8 p.m. and 8 a.m. between May and September to minimize water loss due to evaporation.
- (8) Rain-sensing and moisture-sensing devices are encouraged.

DELETE

4. Temporary irrigation proposals may be reviewed on a case-by-case basis.

7.6.7. COMPLIANCE WITH NEIGHBORHOOD PLANS

Where a development is subject to neighborhood or area plan standards, landscape plans must incorporate, to the greatest extent possible, the landscape, screening, and design provisions of the adopted plan. In case of a conflict between this section and the provisions of a neighborhood or area plan, this section shall apply.

7.6.8. MAINTENANCE

All required landscaping, irrigation systems, walls, screening devices, curbing, and detention basin landscape improvements on the site or within the abutting right-of-way shall be maintained as shown on the approved plans. The property owner is responsible for proper maintenance to achieve permanent, safe, and successful landscaping as required by this Section. Failure to maintain the improvements or landscaping required by this section constitutes a violation of the UDC.

5-01.5.0 of the TSM

A. Plant Materials²⁹

1. Any plant material in areas of required landscaping that does not survive must be replaced with an equivalent size and species within 30 days.
2. Plant material must be pruned as necessary to control size but not to disrupt the natural growth pattern or characteristic form of the plant except as necessary to achieve height clearance for visibility and pedestrian passage or to achieve a continuous opaque hedge if required.
3. Clipping and pruning of the plant material are required to allow maximum shading while preserving surveillance opportunities and preventing obstructive overhang into walks, curb areas, drives, and line of sight triangles as required in this Code.
4. All dead or removed plant material must be replaced with plant material acceptable under the standards of the xeriscape landscaping standards. Replacement material must be a minimum 15 gallon size for trees and five gallon size for shrubs.
5. Regular landscape maintenance shall ensure water efficiency and include, but not be limited to, pruning, mulching, weeding, litter removal, aerating and dethatching turf areas, and fertilizing nonnative plant materials, as necessary.

DELETE

TSM ONLY

B. Inert Materials

1. Exterior improvements, such as benches, walls, or ramadas, must be of durable materials appropriate to the desert climate. Material with integral

²⁹ Text from DS 2-06.6.0.

coloring or stucco is preferred for seating fixtures and other permanent improvements.

2. Inert materials used in the landscaping areas must be of a nature to withstand the extremes of the desert climate and minimize heat gain or reflected heat.
3. The inert materials must be replaced as needed due to displacement or erosion.

C. Planting Areas

1. Inert materials must be used in inaccessible, narrow, or hard to maintain sections of the planting areas.
2. Landscaped areas must be kept free of trash, weeds, debris, and dead plant material and must be maintained in a clean and neat fashion.
3. Use of river rock is discouraged adjacent to building windows.

D. Landscape Removal

1. Substantial modifications, as determined by the PDSD Director, and/or removal of plant materials or other landscape elements shall require review and approval of a revised landscape plan by PDSD.
2. The removal or destruction of landscape material that has been installed according to an approved landscape plan and not replaced constitutes a violation of the UDC.
3. Minor modifications of the landscaping occurring as a result of routine maintenance, necessary replacement of elements because of damage or disease, or other causes is not subject to review by PDSD.

E. Screening and Wall Maintenance

1. Paint and stucco must be renewed on the surfaces of fences and walls as needed.
2. Wooden slats in chain-link fences must be replaced as needed to retain the opacity of the screen. *texture*
3. Any screening device that has deteriorated to the point where it does not serve as a screen must be replaced by the property owner. Vegetation used to meet the screening standards may not be replaced with new vegetation after two years past the installation. Replacement must be with another option for screening, such as a fence or a wall, in order to achieve an immediate screen. This standard does not apply to the occasional replacement of single plants within a vegetative screen.

F. Irrigation System Maintenance

Irrigation systems must be maintained and replaced as necessary to continue to conserve water. Detection and repair of leaky or broken pipes, valves, and fittings and malfunctioning and/or misaligned heads, emitters, and bubblers must be part of a regular maintenance program for the site.

1. Automatic Irrigation Controllers are recommended to be reset a minimum of four times a year (spring, summer, fall, and winter) to adjust for plant water requirements that vary according to the season.

2. Whenever possible, repair of irrigation equipment ^{Devices} must be done with the originally specified materials or their equivalent.

7.6.9. ADMINISTRATION

A. Design and Review Procedures

The applicant for development approval is advised to schedule a presubmittal conference with the PDS and Tucson Water Department staff with reference to specific design or review procedures.

B. Review Procedures

Landscape plans are reviewed in the same manner and concurrent with the applicable site plan review required for development approval. Comments on the landscape plans and requests for corrections or resubmittals are made in conjunction with responses to the applicable tentative plat, or site plan. For development located along Gateway Routes and Scenic Routes, the additional review procedures set forth in Sec. 5.3 and Sec. 5.5 of the UDC apply.

C. Site Inspection and Enforcement

1. Inspections

All landscaping required by this section must be inspected by the PDS prior to a final certificate of occupancy being issued by the City or prior to the building being occupied.

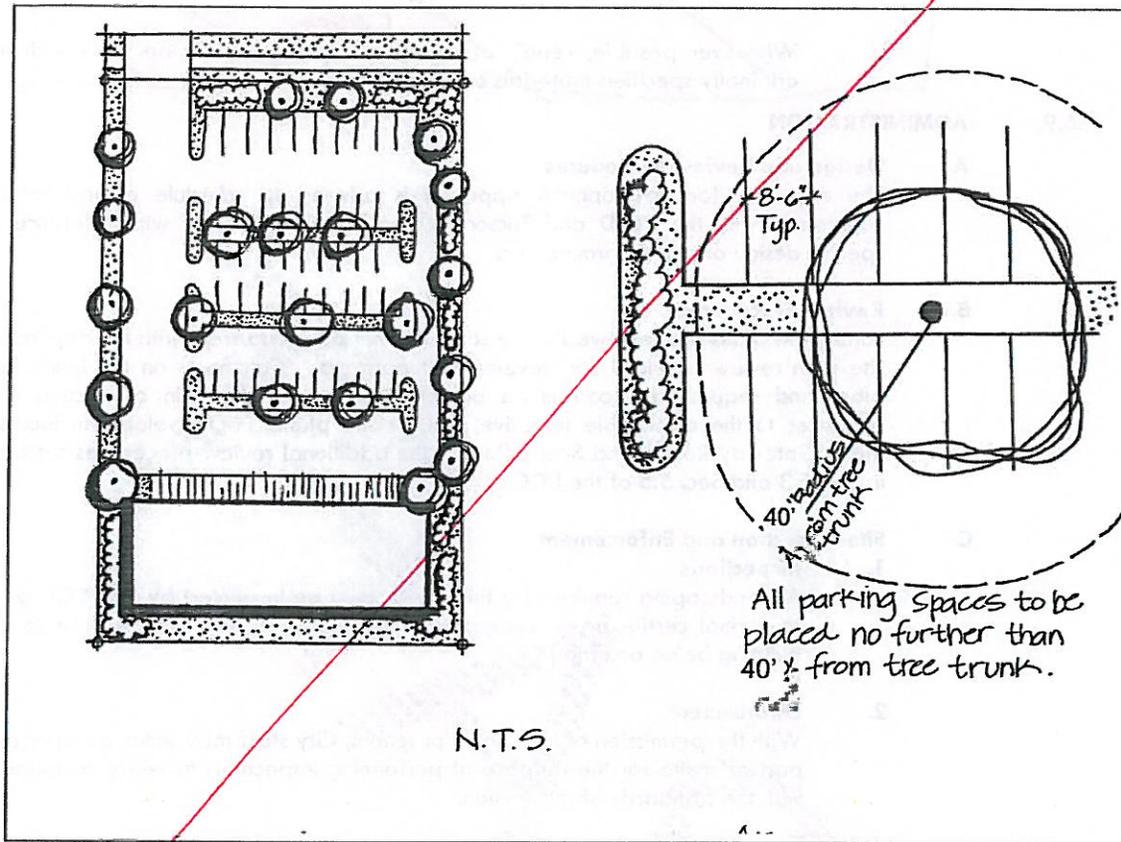
2. Enforcement

With the permission of the owner or tenant, City staff may enter a site or any part of a site for the purpose of performing inspections to verify compliance with the standards of this section.

D. Variances

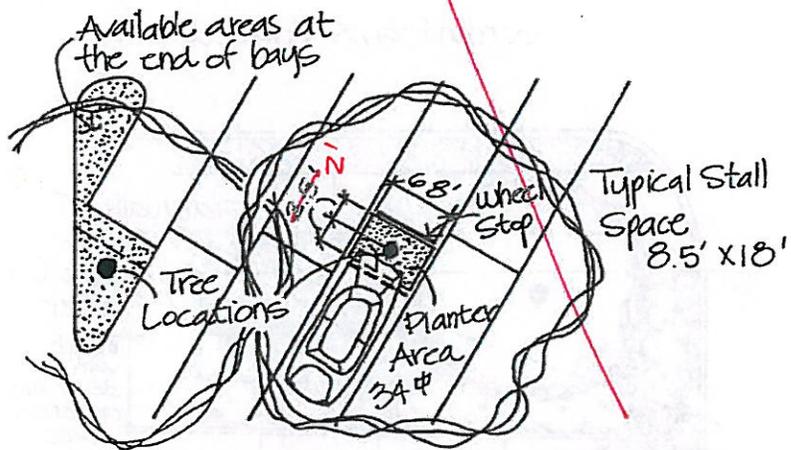
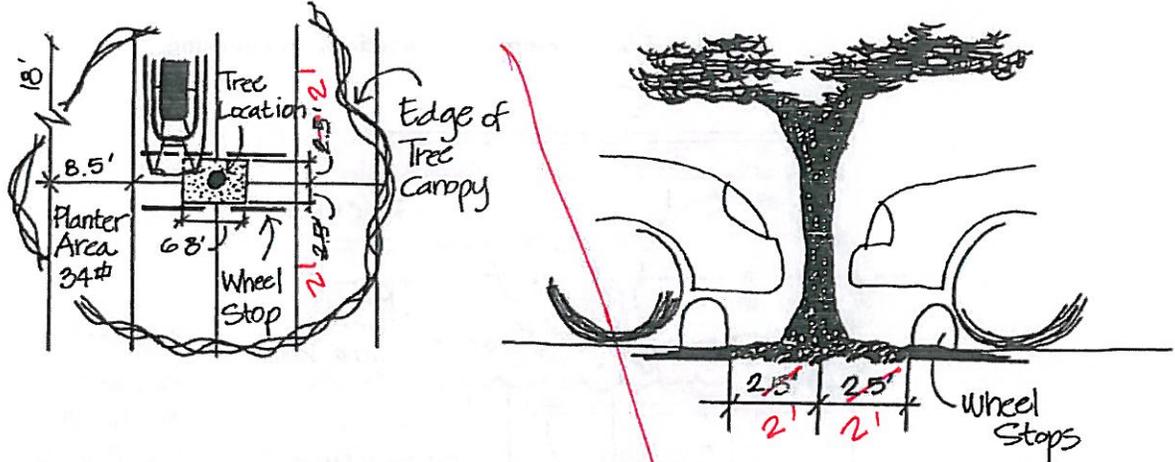
The Design Review Board (DRB) shall review all variance requests from the Landscaping and Screening Standards as provided in Sec. 2.2.6.C.6 and forward a recommendation in accordance with Sec. 2.2.6.B.6.

Figure 7.6.9-A: Vehicular Use Area



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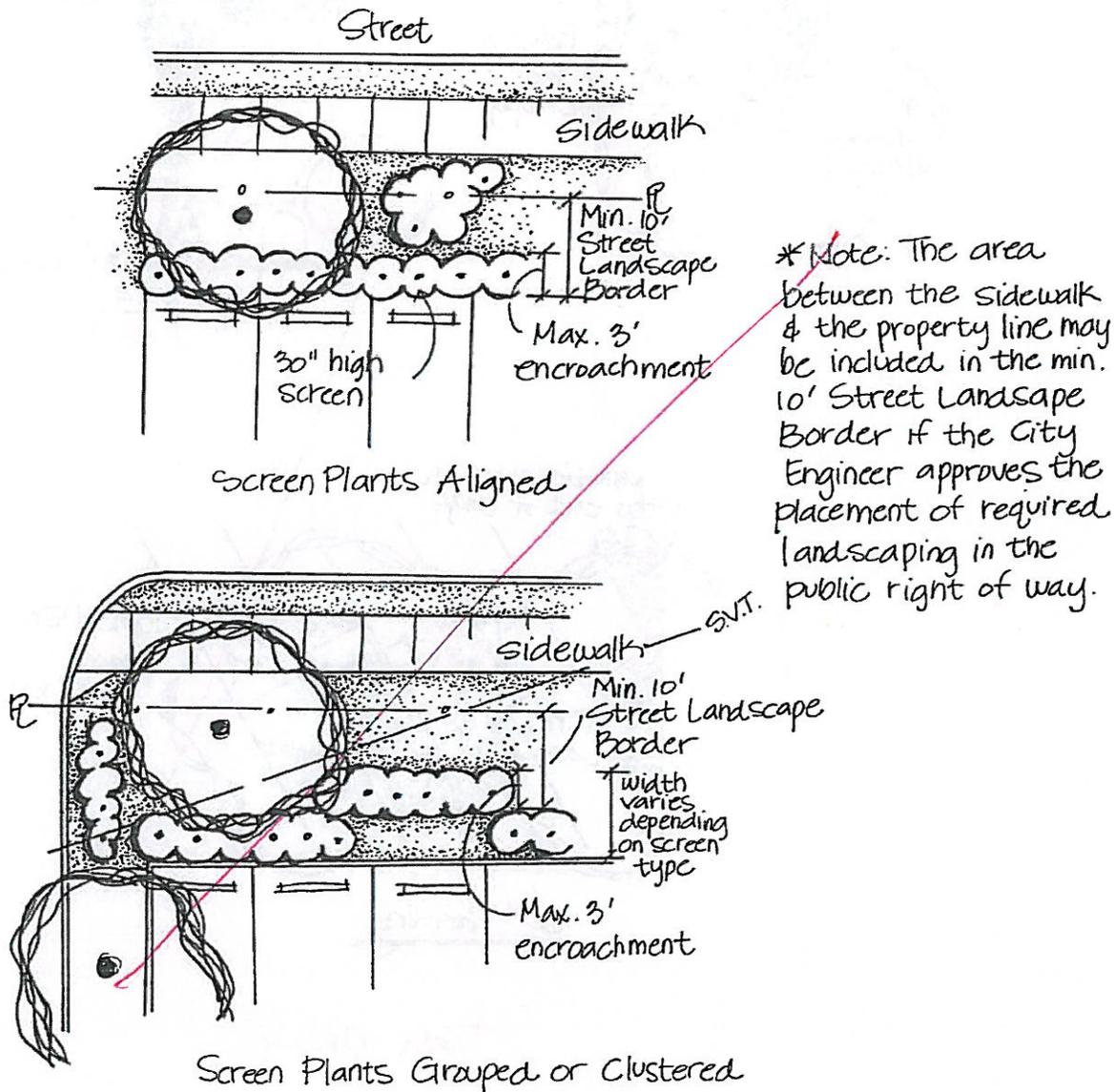
Figure 7.6.9-B: Vehicular Use Area



60° Parking

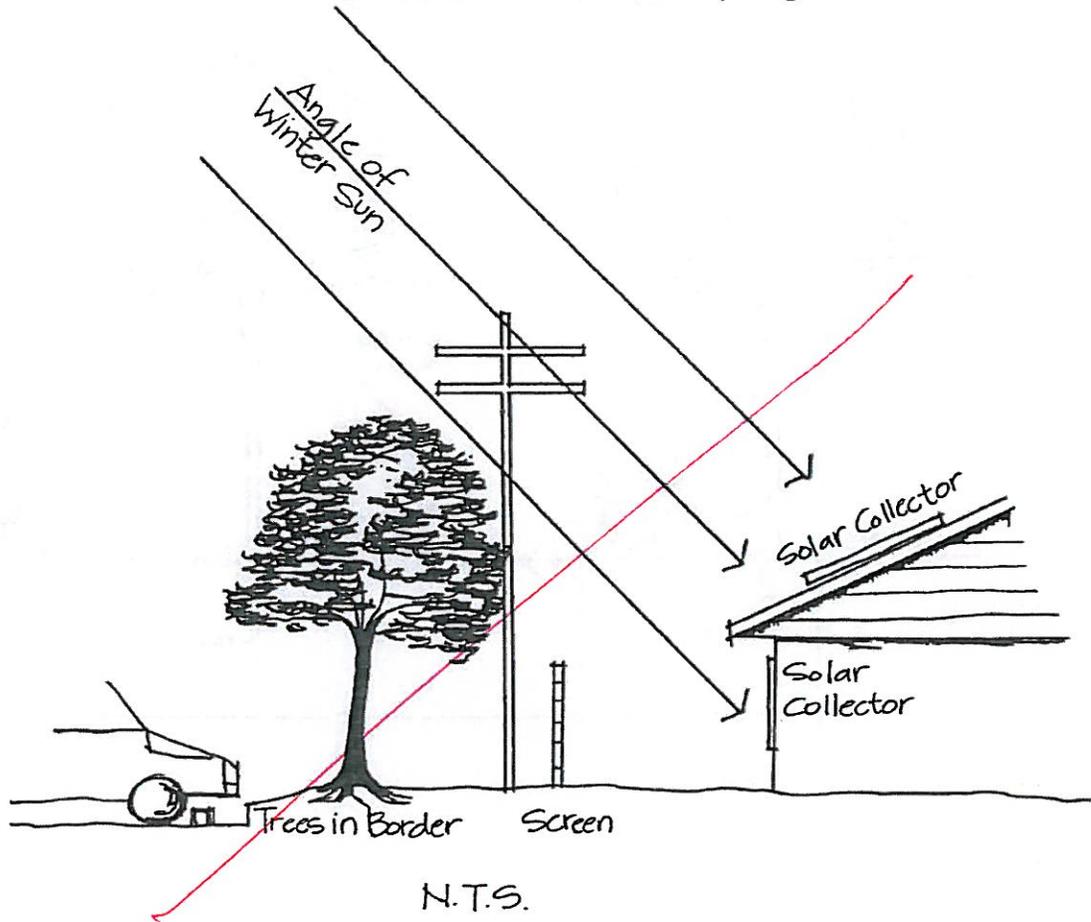
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Figure 7.6.9-C: Plant Size, Location, and Spacing



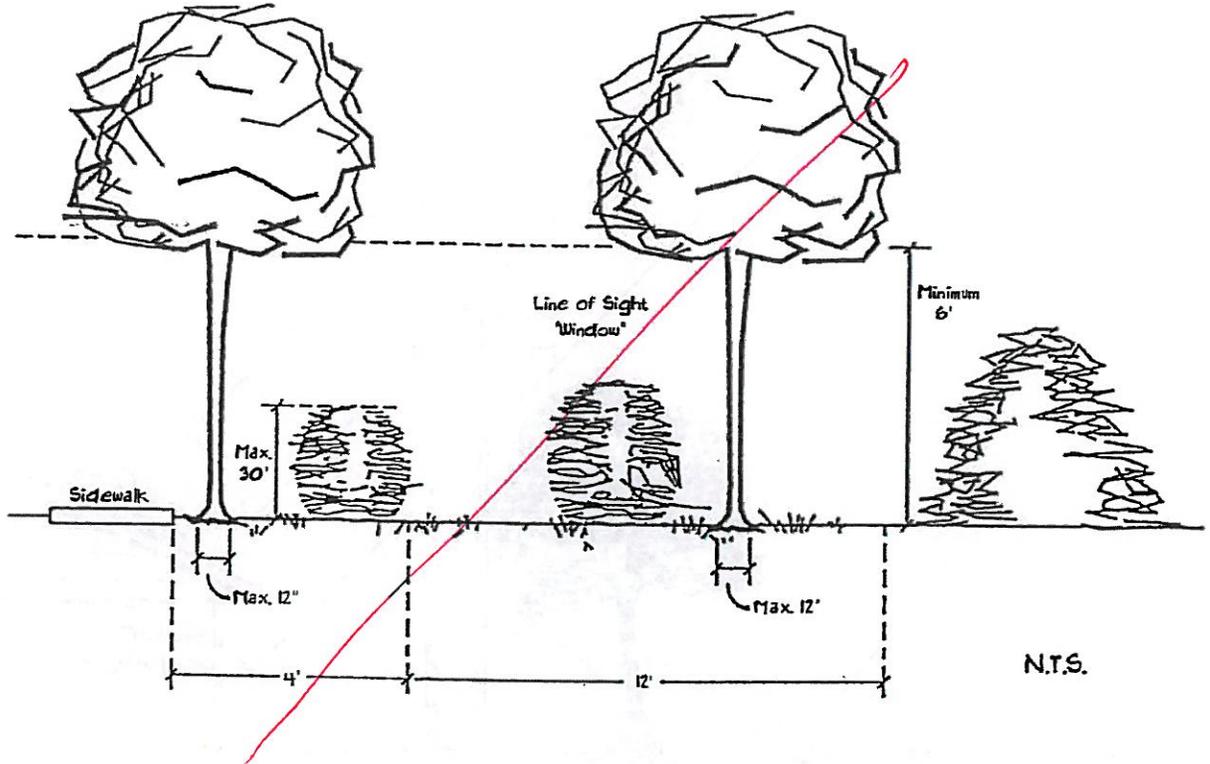
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Figure 7.6.9-D: Plant Size, Location, and Spacing



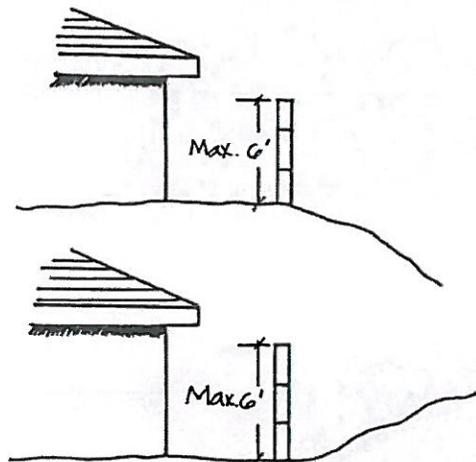
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Figure 7.6.9-E: Pedestrian Safety Zone

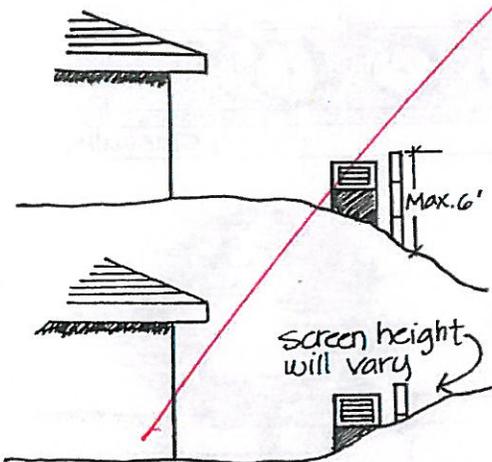


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Figure 7.6.9-G: Screening Standards



Measure the height of the screen from the interior of the project site.
Maximum height for a free-standing screen is 6 feet.

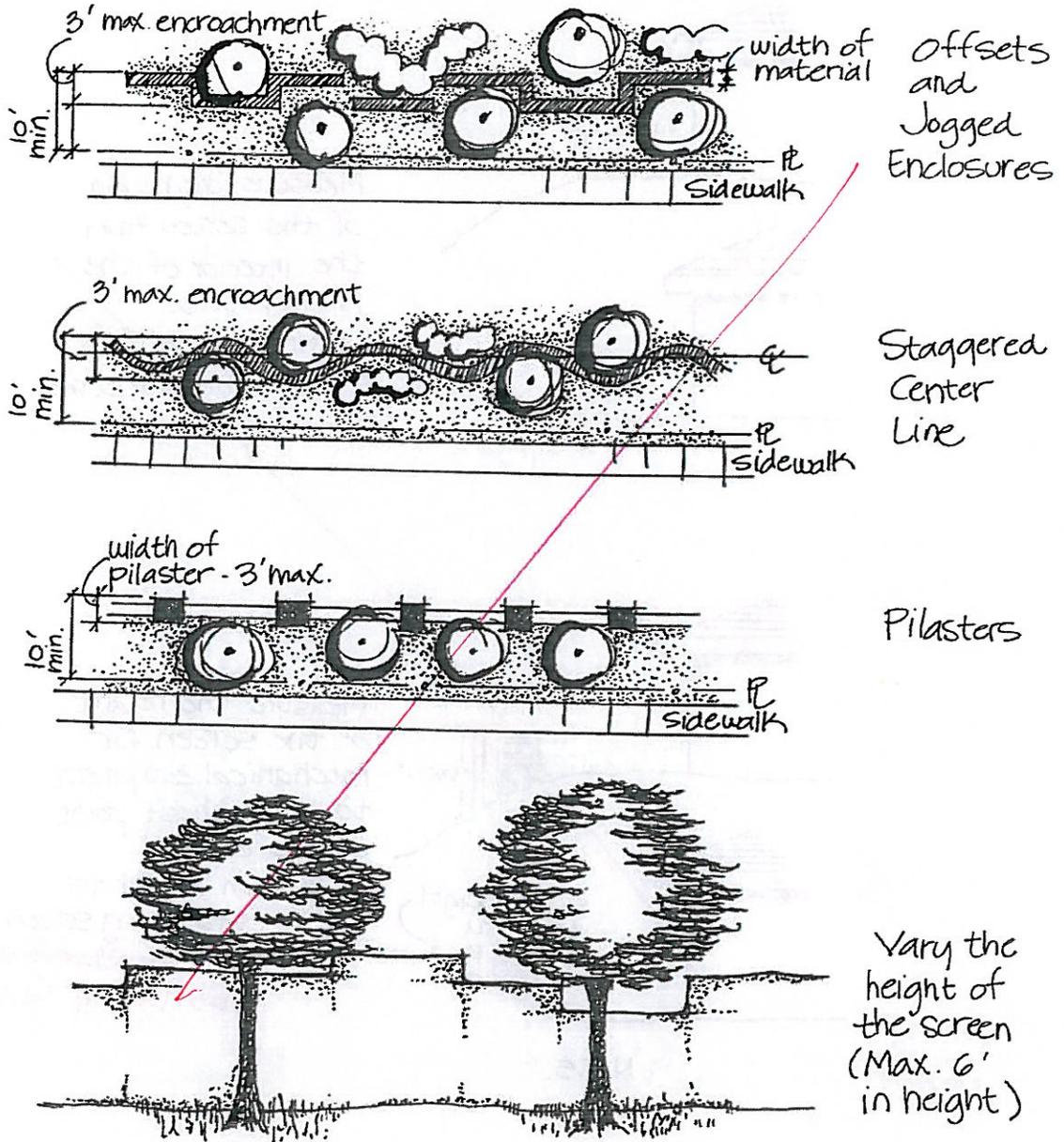


Measure the height of the screen for mechanical equipment to the highest point of the element.
Maximum height for a free-standing screen is 6 feet. ~~as allowed~~
Building Code?

N.T.S.

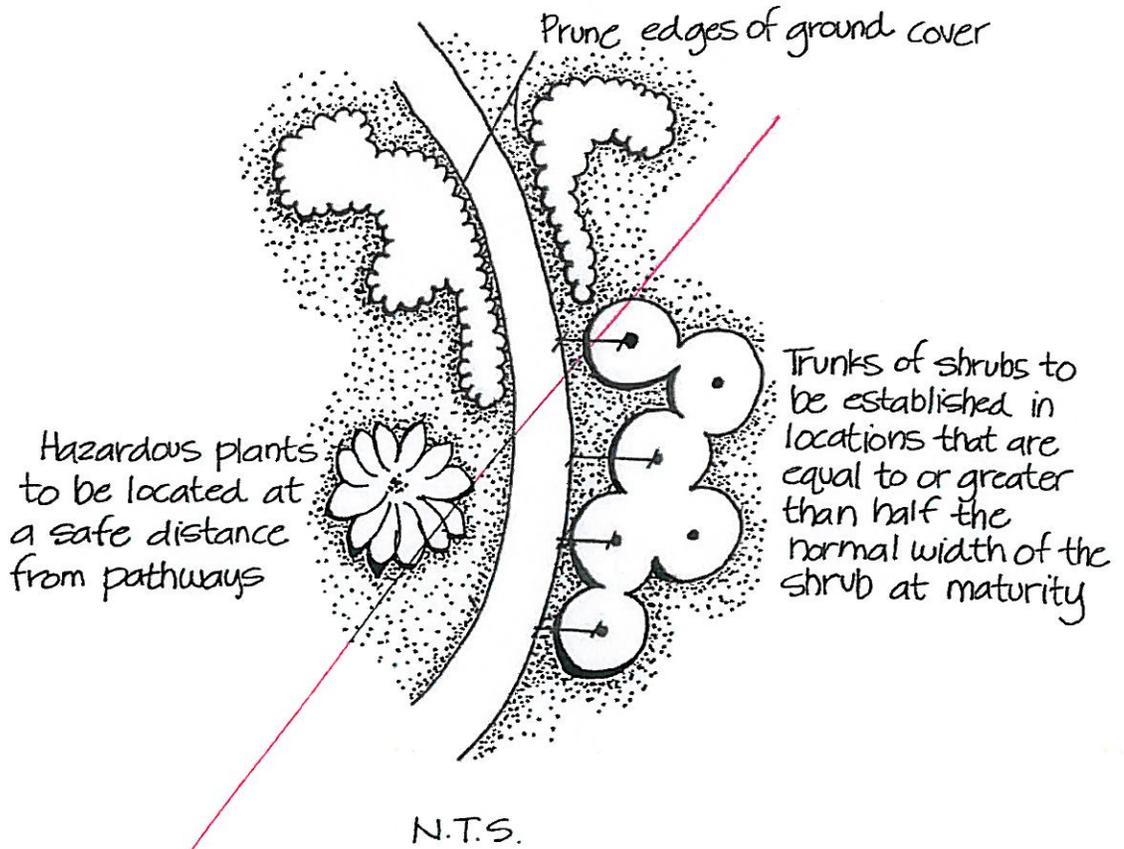
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Figure 7.6.9-H: Screening Standards – Variations for Walls



TSM ONLY

Figure 7.6.9-I: Safety Standards



TSM ONLY

- b. Access lanes and PAALs must be setback at least two feet from a wall, screen, or other obstruction. The additional area is necessary to provide clearance for fire, sanitation, and delivery vehicles.

3. **Sight Visibility**

Sight visibility at points of ingress into, egress from, or within the vehicular use area must be provided in accordance with Section X of the Technical Manual.

4. **Back-Up Spur (See Figure 7.4.6-B)**

- a. A back-up spur must be provided at the end of a row of parking if no ingress or egress is provided at that end.
- b. The spur must be a minimum of three feet in depth and have a three foot radii and a wheel barrier to prevent encroachment onto any unsurfaced areas.
- c. A minimum distance of three feet must be provided between the back of spur and any wall, screen, or other obstruction over six inches in height.

10-01.5.0

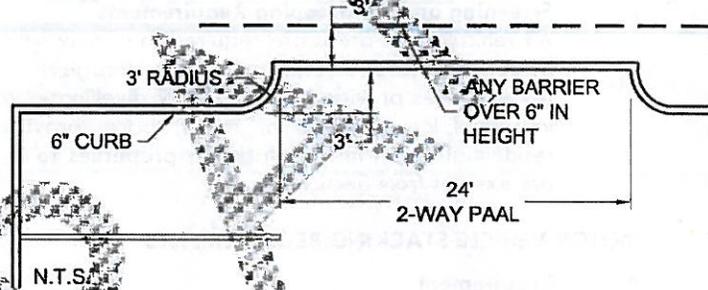


Figure 7.4.6-B: Back Up Spur

G. **Striping**

Parking spaces must be marked with a four inch wide, white stripe along all sides, except at the entrance to the stall or where the limits of the space are defined by other means, such as curbing, except as follows. Striping is not required where tandem parking is permitted per Sec. 7.4.6.B.3.

H. **Barriers**

1. Barriers, such as post barricades or wheel stop curbing, are required in a vehicular use area to prevent vehicles from extending beyond the property lines, to prevent cars from damaging adjacent landscaping, walls, or buildings, overhanging adjacent sidewalk areas, and/or driving onto unimproved portions of the site.

a. **Exception**

Barriers are not required to prevent vehicles from overhanging adjacent sidewalk areas when the sidewalk is curbed and the applicant can demonstrate that a clearance space of at least four feet in width is provided for pedestrian access. When demonstrating compliance, the

K. Use of Street or Alley for Maneuvering Area

A street or alley may not be used for maneuvering directly into or from any parking space located wholly or partially outside the public right-of-way, except as follows:

1. Single-family dwellings, Residential Care Services with four or fewer spaces, home occupations, and non-residential uses within contributing properties to a National Register Historic District may use a street or alley for access and maneuvering.

An alley, when used for access, must be a minimum of 20 feet wide, free of obstructions, and surfaced with a dust control method that is acceptable to the TDOT City Engineer.

2. A street may be used for maneuvering directly into or from a parking space, provided the parking space is located completely within the right-of-way and the design of the parking layout is approved by the TDOT City Engineer.
3. These exceptions are not applicable on MS&R designated streets as provided in Section 6.4.2.A.1.

L. Screening and Landscaping Requirements

All vehicular use areas are required to comply with Section 7.6.4.B, Landscaping and Screening, except as follows: ~~a. Vehicle storage; b. Residential Care Services with four or fewer spaces provided; c. single-family dwellings; d. mobile home dwellings; e. duplexes on individual lots with four or fewer spaces provided; f. home occupations, and g. non-residential uses within contributing properties to a National Register Historic District are exempt from Section 7.6.4.B.~~

*DOES NOT MATCH 7.6.4.B
 SHOW AS a.
 LIST FOR CLARITY g.*

7.4.7. MOTOR VEHICLE STACKING REQUIREMENTS

A. Requirement

The minimum vehicle stacking capacity required is as follows.

Table 7.4.7-1: Minimum Vehicle Stacking Requirements	
Use	Minimum Vehicle Stacking Capacity (per drive-through lane)*
Automotive Washing (Self-Service)	1 vehicle space
Automotive Washing (Full-Service) and Food Service where there are separate points of service for ordering and pick-up	4 vehicle spaces
All other uses	3 vehicle spaces

* The space at the point of service counts as one vehicle space.

B. Design Criteria

1. Each stacking space must be a minimum of nine feet in width and 18 feet in length.
2. The stacking area for drive-through lanes must not cross on-site pedestrian access.

⁸ "With four or fewer spaces provided" added to duplexes on individual lots to match zoning interpretation.

2. A loading area required for a billboard must be located immediately adjacent to the billboard and outside the area defined by a vertical line intersecting the ground and any structural element extending from the billboard, including, but not limited to, overhangs, cantilevered beams, and elevated walkways.
3. A loading area may be co-located within the approach area for dumpster containers and the stacking spaces of drive-through aisles when safety and access issues are appropriately addressed and delivery and solid waste collection schedules are coordinated so as not to conflict with one another.

B. Access Requirements

The access to a loading space are as follows:

1. A street may be used for access and maneuvering into and out of a loading area provided:
 - a. The street is used for access to only one loading area on that site.
 - b. The street is not shown on the Major Streets and Routes (MS&R) Plan.
 - c. The street is not a local residential street.
 - d. The street does not abut a residential zone within the same block.
2. An alley may be used for access and maneuvering into and out of a loading area provided:
 - a. The alley is used for access to only one loading area on that site.
 - b. The alley is a minimum 20 foot wide.
 - c. The alley is surfaced in a manner acceptable to the City Engineer.
 - d. The alley does not abut a residential zone within the same block.
3. The maneuvering area must be designed so that there is safe access into and out of a loading area. The size and configuration of the maneuvering area must be based on AASHTO (American Association of State Highway and Transportation Officials) standards for turning radii and distances required of the vehicles for which the loading area is designed.
4. The access route to a loading area must have an overhead clearance of 15 feet.

C. Screening and Landscaping Requirements

The screening and landscaping of a loading area must be in conformance with Landscaping and Screening Regulations, Section 7.6.

D. Lighting Requirements

The lighting of a loading area, if present, must be in conformance with adopted City of Tucson Outdoor Lighting regulations.

E. Surfacing Requirements

The surfacing of a loading area must be in conformance with UDC vehicular use area regulations. *per Sec 7.4.6.I*

F. Striping Requirements

The striping of a loading area must be in such a manner as to distinguish the area from motor vehicle parking spaces and other uses on the site. *REV SEC 7.4.6.9*

G. Dimensional Requirements

The minimum size of a loading area, exclusive of access and maneuvering area, must be:

1. Type A: 12 feet by 35 feet.
2. Type B: 12 feet by 55 feet.
3. Overhead Clearance is 15 feet.

7.5.5. REQUIRED LOADING AREAS

The number of loading areas listed for each Land Use Group is applicable for all Land Use Classes within that Land Use Group, unless a Land Use Class is listed specifically stating otherwise.

TABLE 7.5.5-A: REQUIRED LOADING AREAS	
Land Use Group/Class	Loading Areas Required
Agricultural Use Group (Sec. 11.3.2)	Not Required
Civic Use Group (Sec. 11.3.3)	Not Required Except For:
Civic Assembly: Less Than 25,000 sq. ft. GFA	0
Over 25,000 sq. ft. GFA	1 TYPE A
Commercial Services Use Group (Sec. 11.3.4)	Not Required Except For:
Offices: Less Than 50,000 sq. ft. GFA	0
50,001 to 100,000 sq. ft. GFA	1 TYPE A
Over 100,000 sq. ft. GFA	2 TYPE A
Billboard:	1 TYPE A
Restaurants/Bars:	
Less Than 5,000 sq. ft. GFA	0
Over 5,000 sq. ft. GFA	1 TYPE A
Industrial Use Group (Sec. 11.3.5)	Not Required Except For:
ALL USES: Less than 25,000 sq. ft. GFA	0
25,001 to 50,000 sq. ft. GFA	1 TYPE B
Over 50,000 sq. ft. GFA	2 TYPE B
Recreation Use Group (Sec. 11.3.6)	Not Required
Restricted Adult Activities Use Group (Sec. 11.3.8)	Not Required Except For:
Same as required for similar land use class in Commercial Services Use Group, Retail Trade Use Group or Industrial Use Group	
Retail Trade Use Group (Sec. 11.3.9)	Not Required Except For:
Merchandise Sales:	
Less Than 25,000 sq. ft. GFA	0
25,001 to 100,000 sq. ft. GFA	1 TYPE A
Over 100,000 sq. ft. GFA	2 TYPE A

ART. 8

CHUCK MARTIN
5/18/12

~~division of land whose area is 2 1/2 acres or less into 2 or 3 lots.~~ Neither a tentative plat nor a final plat are required but the resulting lots shall conform to applicable zoning requirements and other government codes and ordinances. The purpose of this Section is to establish a review process for land splits. This review:

1. Assures that newly created lots are of sufficient size to be developed and meet the requirements of applicable zoning classification;
2. Assures that the newly created lots have locations for building pads that are protected from flood and erosion hazards as defined in the Floodplain Ordinance (Tucson Code Chapter 26) and Standards Manual for Drainage Design and Floodplain Management in Tucson, Arizona; and,
3. Assures that all lots resulting from a land split shall have adequate access as specified by ~~the~~ Technical Standards Manual Section 7-01.0.0, Pedestrian Access, and UDC Section 7.8, Access.

B. Applicability

A proposed land split shall be submitted to PSDS for review and approval as provided in this Section 8.3.1.C.

C. Review Procedures

1. Pre-application Conference

A pre-application conference is encouraged, but not required.

2. Submittal

Submittal of an application to PSDS for review and approval.

3. Complete Application

The application shall conform to the requirements ^{08.0.0} of Section 2-06.0.0, Development Package, in the Administrative Manual. ~~Only complete applications will be accepted for processing.~~

* Land split

4. Review

Review shall be conducted by PSDS staff for compliance with the UDC requirements on land splits. The land split shall:

- a. Not constitute a subdivision as defined in Section 11.4.20 which would require compliance with platting requirements of Section 8.4;
- b. Result in lots which conform to the minimum lot size requirements of the zoning applicable to the property;
- c. Provide access to the proposed lots in compliance with ~~the~~ Technical Standards Manual Section 7-01.0.0., Pedestrian Access, and UDC Section 7.8;
- d. Result in all existing buildings complying with building setbacks of the zoning applicable to the property; and,
- e. Result in lots of at least the minimum size required to build in conformance with the applicable zoning including any natural, environmental and floodplain requirements.

Director shall suspend the issuance of any permit(s) until such time as appropriate current assurances have been provided.

8.6.3. SURVEY MONUMENTS REQUIRED

The subdivider shall place survey monuments of appropriate type and design delineating the external boundary of the parcel being subdivided, public streets, and all public street intersections within or adjacent to the subdivision, installed in accordance with established practices of the City.

- A. External boundary survey monuments for the parcel being subdivided shall be installed prior to recordation of the final plat.
- B. All other monuments are to be installed prior to the recordation of the final plat, unless the subdivider has posted financial assurances with the City to assure the installation of the monuments after recordation.

8.6.4. PERMITS FOR MODEL HOMES

Upon approval of the tentative plat, up to five single-family model homes may be authorized for construction prior to recordation of the final plat, provided:

- A. Sale or occupancy of an individual unit as a residence does not occur until after recordation of the final plat and the City's release of assurances for improvements; and,
- B. The location of each unit is based on the lot configuration approved for the tentative plat at one unit per proposed lot.

8.6.5. LAND CLEARING AND GRADING

- A. Land clearing or grading may begin after grading plans are approved, provided the plans are prepared in compliance with an approved tentative plat and such tentative plat is in conformance with the underlying zoning. Mass graded subdivisions include grading of all the platted lots and other subdivision improvements by the developer. Custom graded lot subdivisions include the road improvements that guaranty access to each lot, and other subdivision improvements where access to a future building pad is feasible for each lot.
- B. Grading plans may be submitted for review prior to approval of the tentative plat in accordance with criteria listed in the Administrative Manual, but cannot be approved until after the tentative plat has been approved.



8.6.6. PLAT ABANDONMENT

A recorded plat that is filed for the purpose of abandoning the plat, meaning reverting to the configuration of land previously subdivided, or vacating streets or easements previously dedicated to the public; or vacating or redesccribing lot or parcel boundaries previously recorded shall be replatted following the procedures set forth in this Article.

(WHAT SECTION?)
2-06.2.3

is restricted for use by the elderly. Residents of an FLD for elderly shall be at minimum 62 years old.

(3) Historic Preservation

Sec. 8.7-02

The project includes preservation of a historic site, structure, or landmark or leads to the preservation or scientific study and archaeological documentation of prehistoric or historic buildings or sites, in accordance with the criteria listed in the Technical Manual. Features eligible for use of this option are those identified in the required archaeological study as meeting the criteria in the Technical Manual. A recorded covenant preserving the historical site is required.

(4) Additional Functional Open Space

Article?

The project preserves at least 20 percent more Functional Open Space than is required by Section 8.7.3.F.1 (Functional Open Space Requirements). The additional open space shall be usable for passive or active recreational uses, such as trails, walking paths, picnic areas, and playgrounds.

(5) Additional Open Space within an FLD Greater than 5 Acres

The project preserves in a natural state at least 15 percent more area than is required by other sections of the Tucson Code. These natural features include, but are not limited to, vegetation, washes, and hillsides.

UDC?

(6) Proximity to an Arterial Street

The project is located in the City's Central Core (as defined in the City of Tucson's General Plan) and is on a designated arterial street near transit facilities to promote the use of transit and reduce vehicle trips. The project density does not conflict with any applicable area or neighborhood plan.

(7) Trail or Wildlife Corridor Dedication

The FLD provides for dedication of trails or wildlife corridors, or both, that connect to offsite trails and wildlife corridors as approved by the Parks and Recreation Department.

(8) Green Building

The project is designed and located to comply with the energy efficiency requirements listed in the Technical Manual.

D. Regulations for FLD Projects

The following regulations are required of all FLD projects:

1. Development Alternative A is for standard FLDs.
2. Development Alternative B is for Maximum Development Option FLDs per Section 8.7.3.C.3.b.

Article?

adjacent existing residential development. Screening shall be architecturally integrated with the overall design of the FLD.

6. If a perimeter wall is proposed along an existing public right-of-way, it shall be constructed of, or painted with, graffiti-resistant materials. The wall shall incorporate one or more of the following decorative materials:
 - a. Tile;
 - b. Stone;
 - c. Brick;
 - d. Adobe;
 - e. A textured material such as stucco or plaster; or
 - f. Metal.

I. Parking

Parking shall comply with Section 7.4, Motor Vehicle and Bicycle Parking, applicable sections of Section 7.6, Landscaping, and the Technical Manual, applicable regulations related to accessibility, and the following criteria: *Article and Screening standards*

1. Streets within the FLD site for which on-street parking is proposed shall be designed with parking lanes that comply with the Technical Manual. *(Sec. 10-01.2.4 of the*
2. An alley abutting an existing development shall not be used for parking access.
3. Common parking areas shall meet the following requirements:
 - a. No more than 60 parking spaces may be located in any single outdoor parking area;
 - b. There shall be a minimum of 30 ft. separation between common parking areas. Common parking areas shall be separated by a building or landscaping;
 - c. The same parking area access lane (PAAL) may provide access to two or more parking areas; and,
 - d. Curbed areas shall provide openings to allow water to flow into landscaped areas and water harvesting basins.

J. Circulation and Connectivity

1. The right-of-way and pavement widths for internal ways, common parking areas, streets, roads, or other means of vehicular circulation and for surface drainage serving the FLD shall be in conformance with Section 7.4.6, Motor Vehicle Use Area Criteria, and the Technical Manual. *standards Article (Sec. 10-01 of the*
2. All elements of an FLD, including residential units and recreational amenities, shall be connected by a pedestrian circulation system.
3. Interior pedestrian sidewalks shall connect to sidewalks on abutting streets and to abutting commercial and recreational facilities with adjacent property owner's consent.

- 4. Bus turn-out lanes and bus waiting shelters shall be provided if requested by the City.
- 5. Barrier Free Access to Functional Open Space Amenities
 - a. For purposes of this section, barrier free access is defined as functional access for semiambulatory and nonambulatory persons. *WAS "MUST"*
 - b. Barrier free access to Functional Open Space amenities shall be provided pursuant to the City's adopted Building Code Section 1109.14 (Recreational and sports facilities). Exception: FLDs using the Housing for the Elderly maximum development option (Section 8.7.3.C.3.b) shall provide barrier free access pursuant to the City's adopted Building Code Section 1109.14 (Recreational and sports facilities) or 50 percent, but not less than one, of each type of Functional Open Space amenity, whichever is greater.
- 6. Trails that have current or future linkages to other trails, open space areas or recreation areas shall be provided as determined by the City Parks and Recreation Department.
 - a. Trails shall be constructed in compliance with the design criteria established for trails by the City of Tucson Parks Department and Pima County Parks Department.
 - b. Hard and soft surface paths, when required, shall have an average separation of at least five feet to allow for landscaping that does not interfere with the paths, except where a reduced width is allowed by the City's Parks and Recreation Department.

IS THIS AN IBC SECTION?

Perimeter Yards

- K. **Setback Along FLD Project Site Boundaries**¹⁰
 - 1. *R* Setbacks along FLD project site boundaries are required in accordance with Section 6.X and are based on the site's underlying zoning. *Art. 6.3.4*
 - 2. *PV* Street setbacks along FLD project site boundaries are required in accordance with Section 6.X, unless special zoning requirements dictate a greater distance or different point of measurement. *Art. 6.4.5.C*
- L. **Setbacks on Interior Lots**
 - 1. The setback requirements of Section 6.X may be reduced for setbacks along interior lot lines to the extent permitted by the City's adopted Building Codes. *Art. 6.3.4*
 - 2. *Art. 6.4.5.C* Along interior street lot lines, street setbacks are required, in accordance with Section 6.X. The street setback may be administratively reduced by the PSDS Director based on a finding that the reduced setback enhances the architectural design or the vehicular circulation in the FLD and a transportation statement is approved by the City's Traffic Engineering division. *Art. 6.3.4*
 - 3. Along parking area access lanes (PAALs), setbacks are required in accordance with the Technical Manual. *Standards*

WHAT PROCESS?

- M. **Design Criteria**
 - 1. **Architectural Variation**
 - a. **Purpose**

¹⁰ The development designator system is being replaced with a development standards based on zone.

To provide architectural diversity, visual interest, and to avoid monotony in architectural design by requiring variations in such architectural treatments as color, finished materials, massing and rooflines, orientation of units, garages and porches.

b. Applicability

The requirements of this section apply to projects meeting the following criteria:

- (1) Projects with 20 or more single-family detached residential units except when residential units are on lots larger than 10,000 square feet or, where dwelling units are separated by 30 feet or more; or
- (2) Elevations of single family detached units abutting a public street designated as a collector or arterial street in the Major Streets and Routes Plan; or, a private or public street designed and/or designated as a residential collector street.

c. Requirements

- (1) The same architectural elevation shall not be repeated more often than every fourth lot.
- (2) Architectural variation may be accomplished by incorporating a minimum of two of the following design features into the affected elevations: different building footprint orientation, building elevation, garage placement, roof type, ornamentation, or architectural style. The applicant shall work with the City's Design Professional to ensure that adequate variation is achieved.
- (3) Garage Placement. For FLD projects with over 20 or more single-family detached residential units, no more than 50 percent of detached residential units throughout the FLD shall be designed with garages that protrude from or are flush with the front wall of the living area or front porch of the house.

d. Architectural Variation Plan Required

- (1) An Architectural Variation Plan (AVP) demonstrating compliance with the requirements of this section shall be prepared in accordance with the Section of the Administrative Manual.
- (2) The AVP shall be included with the subdivision plat, site plan, or building permit submittal.
- (3) The Design Professional will review AVPs for compliance with this Section and forward his or her findings and recommendation in writing to the PDSO Director for consideration of approval.
- (4) The PDSO Director's decision may be appealed in accordance with Section 3.9.1, Design Review Board Appeal Procedure.
- (5) Conditions of the approved AVP shall be included as notes on the approved plat or site plan, whichever applies, and the building plan.
- (6) An AVP shall be approved prior to issuance of a building permit.

*
WHAT SECTION?
? 2-06.5.3.F
NEW

4. At no time during the construction of the FLD shall the number of constructed residential units per acre of developed land exceed the overall density for the land area in each phase and as approved by the recorded plat

P. FLD Submittal, Review, and Decision

An FLD shall be prepared, processed, and have a tentative and final plat or site plan, whichever is applicable, approved prior to issuance of a building permit.

1. Tentative Plat¹²

A tentative plat for an FLD shall be prepared, processed, and considered for approval in compliance with Section 8.4.4, Tentative Plat, with the following exception.

a. An applicant shall hold a neighborhood meeting in accordance with Section 3.2.2.C. prior to submitting a FLD application.

b. Notice of the submittal of an FLD application PSDS Director's decision shall be sent to the applicant, property owners within 300 feet of the project site, and neighborhood associations within one mile (of the project site). *23K-35(2) WAS 150'*

~~b. A party of record may appeal the PSDS Director's decision in accordance with Section 3.9.2, Mayor and Council Appeal Procedure. Appeals must be based on the grounds that the PSDS Director's decision is not in conformance with the criteria established by this section. The notice of intent to shall be filed with the City Clerk's Office no later than 14 days after the date of the decision. The complete appeal materials shall be filed within 30 days of the decision.~~

WHY
DOESN'T
THIS APPLY TO SITE
PLANS? *

2. Final Plat

A final subdivision plat for an FLD shall be prepared, processed, and approved in compliance with Section 8.4.5, Final Plat.

3. Site Plan

A site plan is required only if a subdivision plat is not required. The submittal, review and approval of a site plan shall comply with Section 3.3.3, PSDS Director Approval Procedure.

Article
and 2-06 of the
AM, Development
Package

¹² Staff is proposing to revise the FLD tentative plat review process to no longer require a neighborhood meeting and notice of application for the following reasons: 1) the FLD is much more prescriptive than the RCP, and, therefore, review and consideration for of proposed FLDs is much more objective and much less subject to staff interpretation; 2) the FLD standards provide greater protections to adjacent property owners; and, 3) the additional notice requirements create a mistaken perception among interested parties that they can influence the PSDS Director's decision when, in fact, the decision is based on a project's compliance with all applicable criteria.

- c. The minimum width of sanitary sewer easements shall be twenty (20) feet. If applicable, indicate that off-site easements will be recorded by separate instrument. Easements may have to be recorded and the recordation information added to the development package prior to approval.
 - d. All sanitary sewers will be designed to provide gravity flow, if possible.
- Q. Provide the square footage and the height of each commercial, industrial, or business structure and the specific use proposed within the footprint of the building(s).
 - R. Show on-site pedestrian circulation and refuge utilizing location and the design criteria in Technical Manual Sec. ????
 - S. Show existing or proposed pedestrian circulation along abutting rights-of-way. Such sidewalks must comply with accessibility requirements for the physically disabled and the design criteria in Technical Manual Sec. ???.
 - T. Show refuse collection areas, including locations of dumpsters, screening location and materials, and vehicle maneuverability, fully dimensioned, and access route. If dumpster service is not proposed, indicate type of service. For specific information on refuse collection, refer to Technical Manual Sec. ????. Refuse collection on all projects shall be designed based on that section, even if collection is to be contracted to a private firm.
 - U. Indicate graphically, where possible, compliance with conditions of rezoning.
 - V. For gang mailboxes indicate location to assure there are no conflicts with other requirements, such as pedestrian accessibility, utilities, and landscaping.
 - W. Indicate the locations and types of proposed signs (wall, free-standing, pedestal) to assure there are no conflicts with other requirements and that minimal locational requirements can be met. Indicate if there are any existing billboards on site. Compliance to UDC Sec. ??? may be required.
 - X. Show compliance with landscaping and screening requirements by locations, material descriptions, and dimensions. Specific plant or hardscape material shall be detailed on a landscape plan. A detailed landscape plan is required. For more specific information, refer to Technical Manual Sec. ???.

2-06.5.0 FLEXIBLE LOT DEVELOPMENT (FLD) – ADDITIONAL REQUIREMENTS

- 5.1 Site Plan Required. FLDs not proposing to subdivide the project site must prepare a site plan per AM Sec. X; *2-06, Dev Pack*
- 5.2 Tentative Plat Required. An FLD proposing to subdivide the project site into two or more lots must prepare a tentative plat. Tentative plats for FLDs must be prepared per Administrative Manual Sec. X including the following developable area information:
2-06 Dev Pack
 - A. Provide, by note on the plat, the developable area calculation for the entire FLD; and,

B. Show the maximum developable area of each lot (i.e. building footprint).

5.3 Additional Information. The following are required in addition to the requirements of the tentative plat or site plan, whichever is applicable:

B.7.3.L A. *Reduced Perimeter Yards.* Perimeter yards between interior lots and street perimeter yards along interior street rights-of-way may be modified per UDC Sec. X. Applicants requesting a perimeter yard reduction must indicate what the required and reduced perimeter yards are and their locations. Applicants requesting a reduced street perimeter yard must provide a written description of how the reduced yard will enhance the architectural design or the vehicular circulation in the FLD and submit a transportation statement, or if required by the Department of Transportation, a traffic impact analysis;

B.7.3.C.3. B. *Maximum Development Option.* Applicants requesting a Maximum Development Option (UDC Sec. X) must demonstrate compliance with the applicable criteria by written report or on the plat or site plan, whichever is appropriate;

C. *Functional Open Space.* Delineate the boundaries of the proposed functional open space on the tentative plat or site plan, whichever is applicable. Provide, by note on the plat, the required and proposed functional open space calculations;

D. *Building Elevations.* Provide dimensioned building elevations of all proposed units. The elevations can be preliminary drawings. The model home construction plans will be used to determine exact setbacks and screening requirements at the time of application for building permits;

E. *Privacy Mitigation Plan*, ^(FMP) if applicable, demonstrating compliance with UDC Sec. X as follows: **B.7.3.M.2.b**

1. Identify on the tentative plat or site plan the lots and/or units that must provide privacy mitigation;
2. Provide photographs of the site and its interface with the adjacent properties documenting the existing conditions; and,
3. Provide a written statement and drawings (such as elevations and landscape plans) demonstrating how the proposed mitigation techniques comply with UDC Sec. ~~???~~. The plan should include when practicable additional design elements to increase privacy such as the siting angle of buildings, windows, and lots; **B.7.3.M.2.b**

F. *Architectural Variation Plan*, if applicable, demonstrating compliance with UDC Sec. X as follows:

1. Identify on the tentative plat or site plan the lots and/or units that must provide architectural variation; and,
2. Provide a written statement and drawings (such as elevations and building footprints) demonstrating how the proposed architectural variation techniques comply with UDC Section ~~????~~.

G. *Covenants, Conditions, and Restrictions.* **B.7.3.M.1.c**

2-09.0.0 SUBDIVISION ASSURANCE PROCEDURES¹⁴

- 2-09.1.0 PURPOSE
- 2-09.2.0 DEFINITIONS
- 2-09.3.0 POLICY
- 2-09.4.0 SUBDIVISION IMPROVEMENT ASSURANCES
- 2-09.5.0 RESPONSIBILITY FOR REVIEW

2-09.1.0 **PURPOSE.** To provide affected City departments with procedures for approving assurances for the completion of subdivision improvements as required by state law, Arizona Revised Statutes, Section 9-463.01(C)(8) and Article 8 of the Unified Development Code (UDC).

2-09.2.0 **DEFINITIONS.** Definitions for words used in this Standard are found in the Technical Manual Glossary or in Article 11 of the UDC.

2-09.3.0 **POLICY.** Subdivision plats are to be reviewed and approved in a manner consistent with the requirements of state law.

2-09.4.0 **SUBDIVISION IMPROVEMENT ASSURANCES.**

4.1 Assurance of Completion of Improvements. Assurances that all ~~subdivision improvements~~ shall be completed, including streets and sidewalks; sewer, water, and electric utilities; drainage and flood control improvements; and monuments, as required by Article 8 of the UDC, the Tucson Code, the Technical Manual of PDS&D, DOT, the Director of Tucson Water, the electric utility, and state statutes and regulations, shall be approved by the City before a subdivision plat may approved. All required improvements shall be made by the subdivider in accordance with current policies of the PDS&D, DOT, Director of Tucson Water, Pima County and the applicable utilities.

? PDS&D

• CHANGE TO MATCH ART. 8 (a.6)

assurable infrastructure

4.2 Types of Assurances. Assurances for the completion of required ~~subdivision improvements~~ shall be provided in the form of a Land Trust Subdivision Assurance Agreement unless the PDS&D Director or designee approves an alternate form as provided in this section. The PDS&D Director or designee may also determine that no assurances are required.

MAY

a. 1

A. Land Trust Subdivision Assurance Agreement. The subdivider may transfer title of the subdivision property to a land trustee to be held as an assurance that the required ~~subdivision improvements~~ will be completed. The subdivider and land trustee shall then agree to the Land Trust Subdivision Assurance Agreement, Agreement to Construct Subdivision Improvements and Amendment to Trust Agreement (the "Land Trust Subdivision Assurance Agreement") in the form provided in Technical Manual Section X. The Land Trust Subdivision Assurance Agreement is an agreement that the improvements will be constructed before the title to the Property held in the land trust is released in accordance with Technical Manual Section X. The Land Trust Subdivision Assurance Agreement amends that trust to conform to the requirements of this Technical Manual. By submitting the Subdivision Land Trust Assurance Agreement, the subdivider and land trustee agree to be legally bound by the terms of the agreement as set forth in Technical Manual Section X and agree that these terms shall supercede and control over

NOT IN CURRENT DRAFT

¹⁴ Text from Development Standard 1-04.

any contrary terms in the signed Land Trust Subdivision Assurance Agreement or in the trust agreement between the subdivider and the land trustee.

- B. Performance Bond Subdivision Assurance Agreement. The subdivider may, at the discretion of the Director or designee, post a performance bond from a surety bonding company authorized to do business in the State of Arizona as an assurance that the required ~~subdivision improvements~~ will be completed. The subdivider shall then agree to the Performance Bond Subdivision Assurance Agreement and Agreement To Construct Subdivision Improvements (the "**Performance Bond Subdivision Assurance Agreement**") as set forth in Technical Manual Section X. The Performance Bond Subdivision Assurance Agreement is an agreement that the subdivider will construct the ~~subdivision improvements~~ or, if not completed, that the City may provide for the construction by executing on the performance bond. By submitting the Performance Bond Subdivision Assurance Agreement the subdivider agrees to be legally bound by the terms of the agreement as set forth in Technical Manual Section X and agrees that these terms shall supercede and control over any contrary terms in the signed Performance Bond Subdivision Assurance Agreement.

NOT IN CURRENT DRAFT

The bonds shall name the City of Tucson as obligee and shall be in an amount at least equal to the cost, as estimated by the subdivider's engineer and approved by the PDSO Director or designee as sufficient to secure to the City the satisfactory construction, installation, and dedication of the uncompleted portion of the required improvements. The Director or designee is authorized to require a performance bond that is up to one and one half times the estimated costs in order to provide for inflation and increased costs that would be incurred if the City was required to complete the ~~improvements~~. If the PDSO Director or designee determines that the performance bond is impractical method to provide assurances for a specific project, the Director or designee shall have the discretion to require an alternate form of assurance.

- C. Escrow Account Subdivision Assurance Agreement. The subdivider may, at the discretion of the Director or designee, establish an account with the City with a cash or negotiable instrument (the "**Escrow Account**") as an assurance that the required ~~subdivision improvements~~ will be completed. The subdivider shall then agree to the Escrow Account Subdivision Assurance Agreement and Agreement To Construct Subdivision Improvements (the "**Escrow Account Subdivision Assurance Agreement**") as set forth in Technical Manual Section X. The Escrow Account Subdivision Assurance Agreement is an agreement that the subdivider will construct the subdivision improvements or, if not completed, that the City may provide for the construction by using the funds in the Escrow Account. By submitting the Escrow Account Subdivision Assurance Agreement the subdivider agrees to be legally bound by the terms of the agreement as set forth in Technical Manual Section X and agrees that these terms shall supercede and control over any contrary terms in the signed Escrow Account Subdivision Assurance Agreement. The Escrow Account may be established with an escrow agent approved by the City provided the subdivider and escrow agent agree to be legally bound by the terms of the agreement as set forth in Technical Manual Section X and agree that these terms shall supercede and control over any contrary terms in the signed Escrow Account Subdivision Assurance Agreement.

NOT IN CURRENT DRAFT

The amount of the cash or negotiable instruments in the account shall be at least equal to the cost, as estimated by subdivider's engineer and approved the City, of construction, installation, and dedication of the required improvements. The

Director or designee is authorized to require an escrow amount that is up to one and one half times the estimated costs in order to provide for inflation and increased costs that would be incurred if the City was required to complete the improvements. If the PSD Director determines that the escrow amount is impractical method to provide assurances for a specific project, the Director or designee shall have the discretion to require an alternate form of assurance.

The Escrow Account shall provide for one (1) of the following:

1. That the principal and accumulated interest shall be held in trust by the City or an escrow agent approved by the City until released in whole or part by the City. The Escrow Account may not be used or pledged by the subdivider for any purpose during the period the Restricted Account is in effect; and further, that in the case of a failure on the part of the subdivider to complete the ~~required~~ ^{needed} improvements within the specified time period and upon notice by the City to the subdivider, the funds and all accumulated interest in the Escrow Account shall immediately, without further action, be made available to the City for use in completion of those improvements.
2. That the subdivider may make a cash contribution to a Escrow Account, and to include the interest accumulated thereon after the date of such contribution, so as to provide the City the flexibility of deferring permanent improvements along or adjacent to arterial or collector streets by holding contributed funds until such time as sufficient funds become available to design, and/or construct, an entire section of roadway or other improvement.

D. Letter of Credit Subdivision Assurance Agreement. The subdivider may, in the discretion of the Director or designee, provide a letter of credit as estimated by the subdivider's engineer and approved by the City, from a bank or other financial institution or person acceptable to the City as an assurance that the required ~~subdivision~~ ^{needed} improvements will be completed. The subdivider shall then agree to the Letter of Credit Subdivision Assurance Agreement and Agreement To Construct Subdivision Improvements (the "**Letter of Credit Subdivision Assurance Agreement**") as set forth in Technical Manual Section X. The Letter of Credit Subdivision Assurance Agreement is an agreement that the subdivider will construct the subdivision improvements or, if not completed, that the City may provide for the construction by using the funds in the Letter of Credit account. By submitting the Letter of Credit Subdivision Assurance Agreement the subdivider agrees to be legally bound by the terms of the agreement as set forth in Technical Manual Section X and agrees that these terms shall supercede and control over any contrary terms in the signed Letter of Credit Subdivision Assurance Agreement.

NOT IN CURRENT DRAFT

The letter of credit shall provide the following:

1. That the creditor guarantees funds in an amount equal to the cost, as estimated by the subdivider's engineer and approved by the DSD Director or designee, Director of Tucson Water, and authorized representative of the electric utility, of construction, installation, and dedication of the required improvements. The Director or designee is authorized to require an amount that is up to one and one half times the estimated costs in order to provide for inflation and increased costs that

P.C.?

would be incurred if the City was required to complete the improvements. If the PDSO Director or designee determines that letter of credit is impractical method to provide assurances for a specific project, the Director or designee shall have the discretion to require an alternate form of assurance.

2. That, in the case of failure on the part of the subdivider to complete the required improvements within the specified time period and upon notice by the City to the subdivider, the creditor shall, without further action, immediately pay to the City such funds as are necessary to complete the required improvements, up to the limit of credit stated in the letter.
 3. That the letter of credit may not be withdrawn or reduced in amount until released by the City.
- D. The PDSO Director or designee may, in the Director's discretion, approve other forms of subdivision assurances as appropriate and necessary to secure completion of the required improvements.

4.3 Assurance Requirements. The assurances described in Sec. XXXX are subject to the following requirements: 2-09.4.0

- A. The period within which the ^{a. i} required improvements must be completed shall be incorporated in the documents creating the assurance and should generally not exceed two (2) years from the date of final plat approval. However, the PDSO Director or designee may approve one or more extensions of up to two (2) years each for completion of improvements where, because of incompatible grades, inadequate connecting facilities, lack of future planning or other reasonable cause, the completion within two (2) years is impossible or undesirable.
- B. The PDSO Director or designee may, at any time during the period of the assurance, accept a substitution of principal or sureties as provided herein.
- C. The subdivider is required to ensure that assurances remain fully in effect until released by the City. In the event that any assurance provided to the City expires, lapses or otherwise becomes unavailable for the purpose of providing assurance that the required improvements will be constructed, the PDSO Director or designee may cease issuing building permits or certificates of occupancy for the effected subdivision.

4.4 Substitution of Assurances. The PDSO Director or designee may approve assurances in the form provided in Technical Manual Section X as substitutes for approved assurances and thereby release the prior assurances. P.C.?

4.5 Inspection and Acceptance of Improvements. The PDSO Director and Director of Tucson Water shall provide for inspection of required improvements. If the PDSO Director, Director of the Department of Transportation and the Director of Tucson Water find upon inspection that any of the required improvements have not been constructed in accordance with the City's construction standards and specifications, the subdivider shall be responsible for completing or replacing such improvements to the specifications of the PDSO Director, Director of the Department of Transportation or Director of Tucson Water.

The City will not accept improvements for maintenance or release or reduce any assurance until the PDSO Director has received statements from the Director of Tucson Water and the

REGIONAL

Director of the Pima County Wastewater Management Department that such improvements have been satisfactorily completed.

4.6 Reduction of Assurances. Where a subdivider completes the required ^{a. i.} improvements for a portion of the final plat, assurances for such ^{a. i.} improvements may be reduced only where the ^{a. i.} improvements can be used and maintained independently of ^{a. i.} improvements required for the entire plat. For example, temporary cul-de-sacs should be provided for incomplete streets; water, sewer, and electric facilities should be capable of independent operation; and adequate access for public safety vehicles should be provided. In no event shall assurances described in Sec. XXXX be reduced below twenty-five (25) percent of the principal amount of each assurance before completion of all required improvements. Any reduction of the amount of assurances shall be approved in writing by the PDSO Director or designee.

4.7 Release of Land Trust Assurance Land Trust Subdivision Assurance.

A. Residential Subdivisions: Up to seventy-five (75) percent of the lots in any particular phase may be released prior to completion and acceptance of the common-element ^{a. i.} improvements (i.e., sewer lines, water lines, street improvements, etc.). Any lot(s) released must be served by the common-element improvements. Once the common-element improvements have been accepted, partial releases greater than seventy-five (75) percent or a final release may be granted only when all the lot-specific improvements have been completed, inspected, and accepted by the appropriate agency.

B. Commercial Subdivisions: Up to sixty (60) percent of the lots in any particular phase may be released prior to the completion and acceptance of the common-element improvements (i.e., sewer lines, water lines, street improvements, etc.). Any lot(s) released must be served by the common-element improvements. Once the common-element improvements have been accepted, partial releases greater than sixty (60) percent or a final release may be granted only when all the lot-specific improvements have been completed, inspected, and accepted by the appropriate agency.

C. Any release of lots pursuant to this ^s section XXXX shall be approved in writing by the PDSO Director or designee.

4.8 Planning and Development Services Department (PDSO) Director Actions. The PDSO Director may designate an employee under the Director to perform any duty of the PDSO Director in this Technical Manual Section XXX and in any assurance agreement.

4.9 Required construction. The purpose of subdivision assurances is to ensure that occupied structures within the subdivision will be served by all improvements that are necessary for the subdivided lots to function independently. The assurances do not require the subdivider to initiate or complete construction of ^{a. i.} a structure if there are not structures to be occupied or new uses on individual lots. Where construction is suspended or terminated after there is a partial release of assurances permitting the occupancy and use of some individual lots, the assurances shall authorize the City to complete or direct the completion of all construction that may be necessary for the public health and safety of the existing developed or occupied lots. Required construction may include drainage areas, open space, recreation and other areas without structures where necessary for the developed or occupied lots.