

Article 3 — Community Design Standards

Chapters:

- 3.0 Design Standards Administration
- 3.1 Access and Circulation
- 3.2 Landscaping, Street Trees, Fences and Walls
- 3.3 Parking and Loading
- 3.4 Public Facilities
- 3.5 Surface Water Management
- 3.6 Other Site Design Standards
- 3.7 Sensitive Lands
- 3.8 Signs

Background: Article 3 provides standards for the most common site design elements (e.g., access, driveway circulation, landscaping), and public streets (Chapter 3.4.100). It contains placeholders for cities to insert or customize their own standards for surface water management (storm drainage), telecommunication facilities, sensitive lands (natural resources), and signs. References are given for some of these elements in the commentary boxes. The standards in Article 3 are meant to be applied in conjunction with the land use and development standards in Article 2. The approval criteria for the various project reviews under Article 4 – Land Use Review, Site Design Review, Conditional Use Permit, Land Division, Master Planned Developments, Modifications, and Variances – specifically refer to the provisions in Article 3.

Chapter 3.0 - Design Standards Administration

Sections:

3.0.100 Design Standards - Purpose

3.0.200 Design Standards - Applicability

3.0.100 Design Standards - Purpose

The following provisions describe how the Community Design Standards (Article 3) are intended to be applied, and the relationship between Article 3 and the supplemental design standards for specific land uses and building types contained in Article 2.

3.0.200 Design Standards - Applicability

The standards in Article 3 are applied based on whether a project is classified as a *Major Project* or a *Minor Project*. In addition, each chapter of Article 3 contains “applicability directions.” In general, the chapters are applied as follows:

- A. Major Project.** Major projects, including developments that require Site Design Review (Chapter 4.2), Land Division approval (Chapter 4.3), Master Planned Development (Chapter 4.5), and amendments to the Comprehensive Plan or Zoning Map (Chapter 4.7), must conform to the applicable sections of:
- Access and Circulation (Chapter 3.1)
 - Landscaping, Street Trees, Fences and Walls (Chapter 3.2)
 - Parking and Loading (Chapter 3.3)
 - Public Facilities (Chapter 3.4)
 - Surface Water Management (Chapter 3.5)
 - Signs (Chapter 3.6)
 - Telecommunication Facilities (Chapter 3.7)
 - Sensitive Lands (Chapter 3.8)
- B. Minor Project.** Minor projects are small developments and land use actions that require only Land Use Review or Conditional Use approval (no site design review). The following chapters generally apply; however, individual sections will not apply to some projects.
- Access and Circulation (Chapter 3.1)
 - Landscaping, Street Trees, Fences and Walls (Chapter 3.2)
 - Parking and Loading (Chapter 3.3)
 - Surface Water Management (Chapter 3.5)
 - Signs (Chapter 3.6)
 - Sensitive Lands (Chapter 3.8)
- C. Non-Conforming Situations.** See Chapter 5.3 for provisions related to non-conforming uses and developments.

Chapter 3.1 — Access and Circulation

Sections:

3.1.100 Purpose

3.1.200 Vehicular Access and Circulation

3.1.300 Pedestrian Access and Circulation

Background: Chapter 3.1 can be used to implement Transportation System Plan provisions related to pedestrian and transit access, access management on arterial streets, including highways, and accessible routes for the disabled under Americans With Disabilities Act.

Statutes and Regulations: Chapter 3.1 addresses parts of the Transportation Planning Rule (OAR 660-012-0045) and Americans With Disabilities Act, as described above.

3.1.100 Purpose

The purpose of this Chapter is to ensure that developments provide safe and efficient access and circulation for pedestrians and vehicles. Section 3.1.200 provides standards for vehicular access and circulation. Section 3.1.300 provides standards for pedestrian access and circulation. Standards for streets and other transportation system improvements are provided in Section 3.4.100.

3.1.200 Vehicular Access and Circulation

- A. Intent and Purpose.** The intent of this Section is to manage access to land uses and on-site circulation, and to preserve the transportation system in terms of safety, capacity, and function. This Section applies to all public streets within the City of *[name]*, and to all properties that abut these roadways. This Section implements the access management policies of the City *[name]* *[Comprehensive Plan/Transportation System Plan]*.
- B. Applicability.** This Chapter applies to all public streets within the City and to all properties that abut these streets. The standards apply when lots are created, consolidated, or modified through a land division, partition, lot line adjustment, lot consolidation, or street vacation; and when properties are subject to Land Use Review or Site Design Review.
- C. Access Permit Required.** Access to a public street (e.g., a new curb cut or driveway approach) requires an Access Permit. An access permit may be in the form of a letter to the applicant, or it may be attached to a land use decision notice as a condition of approval. In either case, approval of an access permit shall follow the procedures and requirements of the applicable road authority, as determined through the review procedures in Article 4.
- D. Traffic Study Requirements.** The City may require a traffic study prepared by a qualified professional to determine access, circulation, and other transportation requirements in conformance with Section 4.1.900, Traffic Impact Study.
- E. Conditions of Approval.** The City may require the closing or consolidation of existing curb cuts or other vehicle access points, recording of reciprocal access easements (i.e., for shared

driveways), development of a frontage street, installation of traffic control devices, and/or other mitigation as a condition of granting an access permit, to ensure the safe and efficient operation of the street and highway system.

F. Corner and Intersection Separation; Backing onto Public Streets. New and modified accesses shall conform to the following standards:

1. Except as provided under subsection 4, below, the distance from a street intersection to a driveway or other street access shall meet the minimum spacing requirements for the street's classification [*in the City's Transportation System Plan*];
2. New property access shall not be permitted within fifty (50) feet of an intersection unless no other reasonable access to the property is available. Where no other alternatives exist, the City may allow construction of an access connection at a point less than 50 feet from an intersection, provided the access is as far away from the intersection as possible. In such cases, the City may impose turning restrictions (i.e., right in/out, right in only, or right out only);
3. Access to and from off-street parking areas shall not permit backing onto a public street, except for single-family dwellings;
4. The City may reduce required separation distance of access points where they prove impractical due to lot dimensions, existing development, other physical features, or conflicting code requirements, provided all of the following requirements are met:
 - a. Joint-use driveways and cross-access easements are provided in accordance with subsection 3.1.200H;
 - b. The site plan incorporates a unified access and circulation system in accordance with this Section; and
 - c. The property owner(s) enter in a written agreement with the City, recorded with the deed, that pre-existing connections on the site will be closed and eliminated after construction of each side of the joint-use driveway.

G. Site Circulation. New developments shall be required to provide a circulation system that accommodates expected traffic on the site. Pedestrian connections on the site, including connections through large sites, and connections between sites (as applicable) and adjacent sidewalks, must conform to the provisions in Section 3.1.300.

H. Joint and Cross Access – Requirement. The number of driveway and private street intersections with public streets should be minimized by the use of shared driveways for adjoining lots where feasible. When necessary for traffic safety and access management purposes, or to access flag lots, the City may require joint access and/or shared driveways in the following situations as follows:

1. For shared parking areas;
2. For adjacent developments, where access onto an arterial is limited;
3. For multi-tenant developments, and developments on multiple lots or parcels. Such joint accesses and shared driveways shall incorporate all of the following:
 - a. A continuous service drive or cross-access corridor that provides for driveway separation consistent with the applicable transportation authority's access management classification system and standards;
 - b. A design speed of 10 miles per hour and a maximum width of 20 feet, in addition to any parking alongside the driveway; additional driveway width or fire lanes may be approved when necessary to accommodate specific types of service vehicles, loading vehicles, or emergency service provider vehicles;
 - c. Driveway stubs to property lines (for future extension) and other design features to make it easy to see that the abutting properties may be required with future development to connect to the cross-access driveway;

I. Joint and Cross Access – Reduction in Required Parking Allowed. When a shared driveway is provided or required as a condition of approval, the land uses adjacent to the shared driveway may have their minimum parking standards reduced in accordance with the shared parking provisions of Section 3.3.300C

J. Joint and Cross Access – Easement and Use and Maintenance Agreement. Pursuant to this Section, property owners shall:

1. Record an easement with the deed allowing cross-access to and from other properties served by the joint-use driveways and cross-access or service drive;
2. Record an agreement with the deed that remaining access rights along the roadway for the subject property shall be dedicated to the City and pre-existing driveways will be closed and eliminated after construction of the joint-use driveway;
3. Record a joint maintenance agreement with the deed defining maintenance responsibilities of property owners.

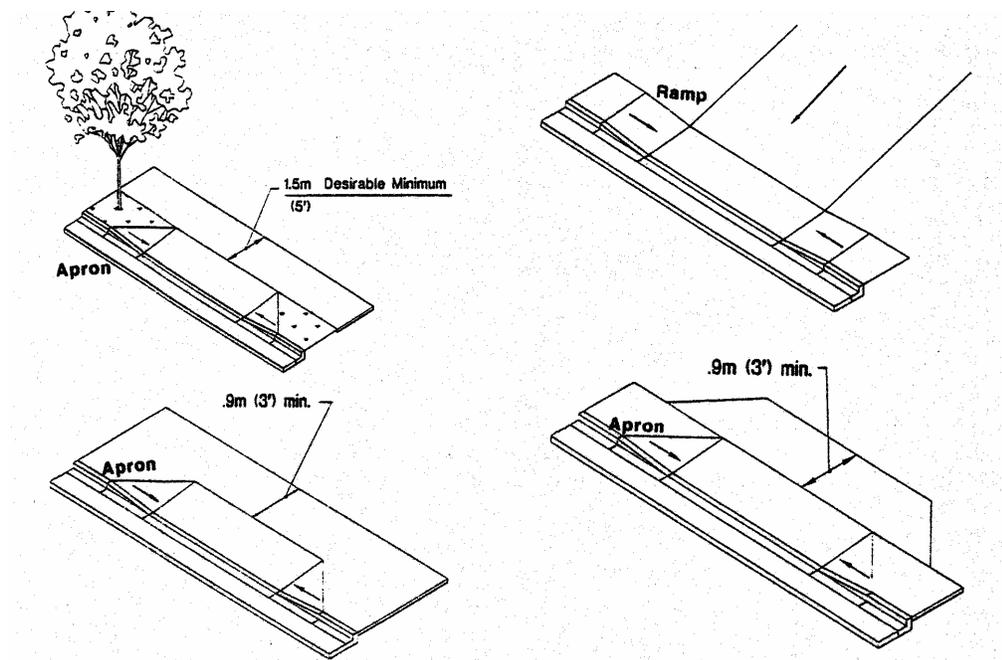
K. Access Connections and Driveway Design. All driveway connections to a public right-of-way (access) and driveways shall conform to all of the following design standards:

1. Driveway Width. Driveways shall meet the following standards:
 - a. One-way driveways (one way in or out) shall have a minimum driveway width of 10 feet, and a maximum width of 12 feet, and shall have appropriate signage designating the driveway as a one-way connection.
 - b. For two-way access, each lane shall have a minimum width of 9 feet and a maximum width of 11 feet.

2. Driveway Approaches. Driveway approaches shall be designed and located to provide exiting vehicles with an unobstructed view of other vehicles and pedestrians, and to prevent vehicles from backing into the flow of traffic on the public street or causing conflicts with on-site circulation.. Construction of driveway accesses along acceleration or deceleration lanes or tapers should be avoided due to the potential for vehicular conflicts. Driveways should be located to allow for safe maneuvering in and around loading areas. See also, Chapter 3.8, Loading.

3. Driveway Construction. Driveway aprons (when required) shall be constructed of concrete and shall be installed between the street right-of-way and the private drive, as shown in Figure 3.1.200J. Driveway aprons shall conform to ADA requirements for sidewalks and walkways, which generally require a continuous unobstructed route of travel that is not less than 3 feet in width, with a cross slope not exceeding 2 percent, and providing for landing areas and ramps at intersections.

Figure 3.1.200K Examples of Acceptable Driveway Openings Next to Sidewalks/Walkways



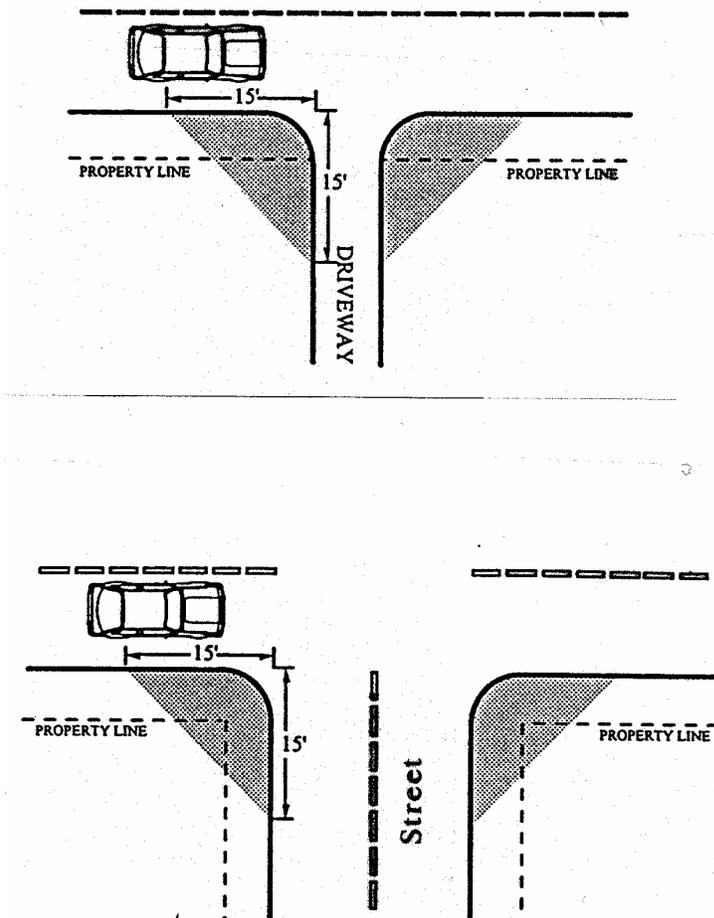
L. Fire Access and Turnarounds. When required under the Uniform Fire Code, fire access lanes with turnarounds shall be provided. Except as waived in writing by the Fire Marshal, a fire equipment access drive shall be provided for any portion of an exterior wall of the first story of a building that is located more than [150] feet from an existing public street or approved fire equipment access drive. The drive shall contain unobstructed adequate aisle width (14-20 feet) and turn-around area for emergency vehicles. The Fire Marshal may

require that fire lanes be marked as “No Stopping/No Parking.” For requirements related to cul-de-sacs or dead-end streets, please refer to Section 3.4.100.N.

M. Vertical Clearances. Driveways, private streets, aisles, turn-around areas and ramps shall have a minimum vertical clearance of 13' 6" for their entire length and width.

N. Vision Clearance. No visual obstruction (*e.g.*, sign, structure, solid fence, or shrub vegetation) between three (3) feet and eight (8) feet in height shall be placed in “vision clearance areas” on streets, driveways, alleys, or mid-block lanes where no traffic control stop sign or signal is provided, as shown in Figure 3.1.200N. The minimum vision clearance area may be modified by the City Engineer upon finding that more or less sight distance is required (*i.e.*, due to traffic speeds, roadway alignment, etc.). This standard does not apply to light standards, utility poles, trees trunks and similar objects.

Figure 3.1.200N Vision Clearance Areas



O. Construction. The following development and maintenance standards shall apply to all driveways and private streets, except that the standards do not apply to driveways serving

one single-family detached dwelling:

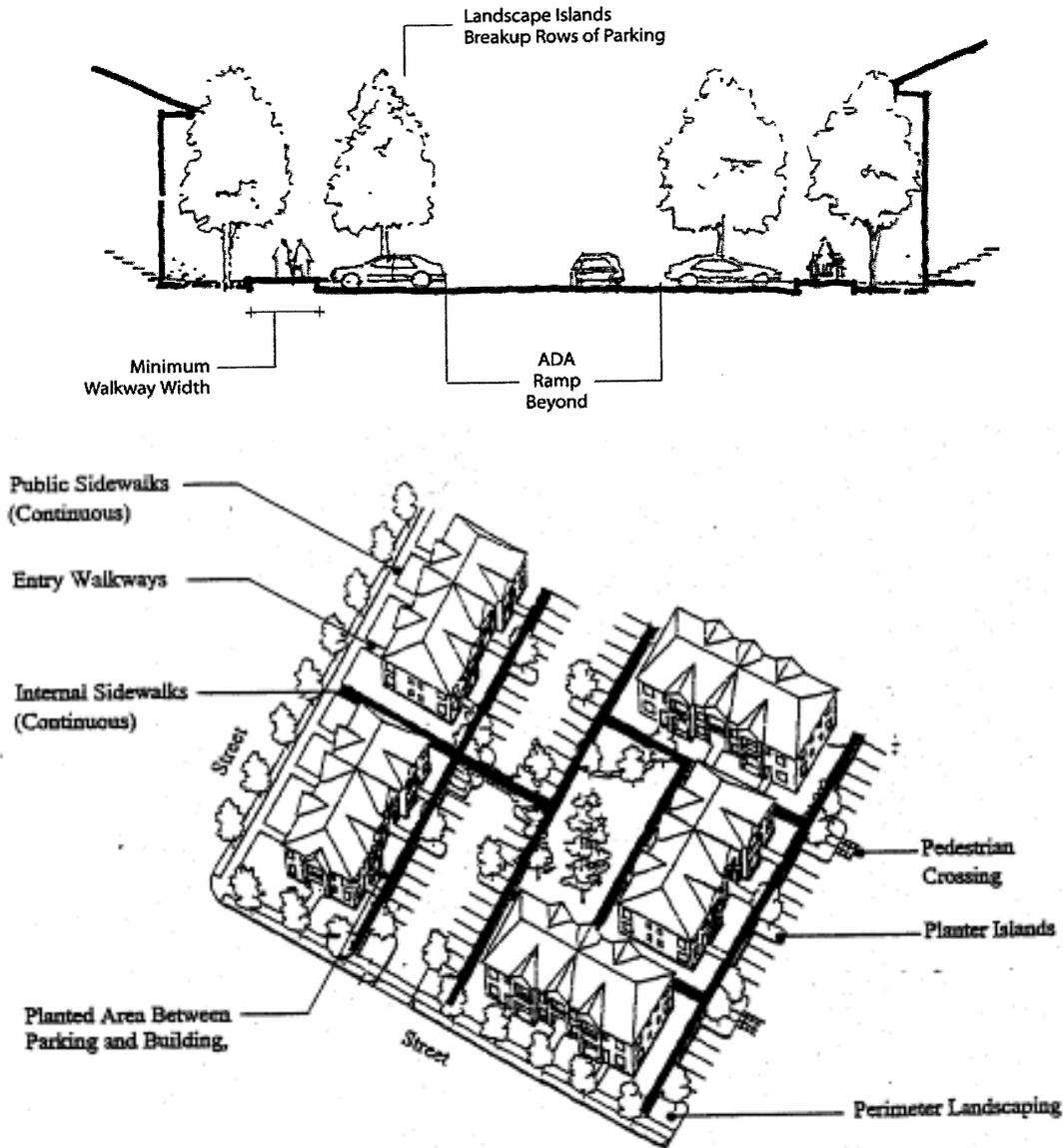
1. Surface Options. Driveways, parking areas, aisles, and turnarounds may be paved with asphalt, concrete, or comparable surfacing, or a durable non-paving or porous paving material may be used to reduce surface water runoff and protect water quality. Driveway and street materials shall be subject to review and approval by the City Engineer.
2. Surface Water Management. When non-porous paving is used, all driveways, parking areas, aisles, and turnarounds shall have on-site collection of surface waters to eliminate sheet flow of such waters onto public rights-of-way and abutting property. Surface water facilities shall be constructed in conformance with Chapter 3.5 and applicable engineering standards.
3. Driveway Aprons. When driveway approaches or “aprons” are required to connect driveways to the public right-of-way, they shall be paved with concrete surfacing and conform to the City’s engineering design criteria and standard specifications. (See general illustrations in Section 3.1.200K, above.)

3.1.300 Pedestrian Access and Circulation

A. Site Layout and Design. To ensure safe, direct, and convenient pedestrian circulation, all developments, except single-family detached housing (i.e., on individual lots), shall provide a continuous pedestrian system. The pedestrian system shall be based on the standards in subsections 1-4, below:

1. Continuous Walkway System. The pedestrian walkway system shall extend throughout the development site and connect to all future phases of development, and to existing or planned off-site adjacent trails, public parks, and open space areas to the greatest extent practicable. The developer may also be required to connect or stub walkway(s) to adjacent streets and to private property with a previously reserved public access easement for this purpose, in accordance with the provisions of Section 3.1.200, Vehicular Access and Circulation, and Section 3.4.100, Transportation Standards.
2. Safe, Direct, and Convenient. Walkways within developments shall provide safe, reasonably direct, and convenient connections between primary building entrances and all adjacent streets, based on the following definitions:
 - a. Reasonably direct. A route that does not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for likely users.
 - b. Safe and convenient. Routes that are reasonably free from hazards and provide a reasonably direct route of travel between destinations.
 - c. "Primary entrance" for commercial, industrial, mixed use, public, and institutional buildings is the main public entrance to the building. In the case where no public entrance exists, street connections shall be provided to the main employee entrance.
 - d. "Primary entrance" for residential buildings is the front door (i.e., facing the street). For multifamily buildings in which each unit does not have its own exterior entrance, the "primary entrance" may be a lobby, courtyard, or breezeway which serves as a common entrance for more than one dwelling.
3. Connections Within Development. Connections within developments shall be provided as required in subsections a-c, below:
 - a. Walkways shall connect all building entrances to one another to the extent practicable, as generally shown in Figure 3.1.300A(1);
 - b. Walkways shall connect all on-site parking areas, storage areas, recreational facilities and common areas, and shall connect off-site adjacent uses to the site to the extent practicable. Topographic or existing development constraints may be cause for not making certain walkway connections, as generally shown in Figure 3.1.300A(1); and

Figure 3.1.300A(1) Pedestrian Pathway System (Typical)

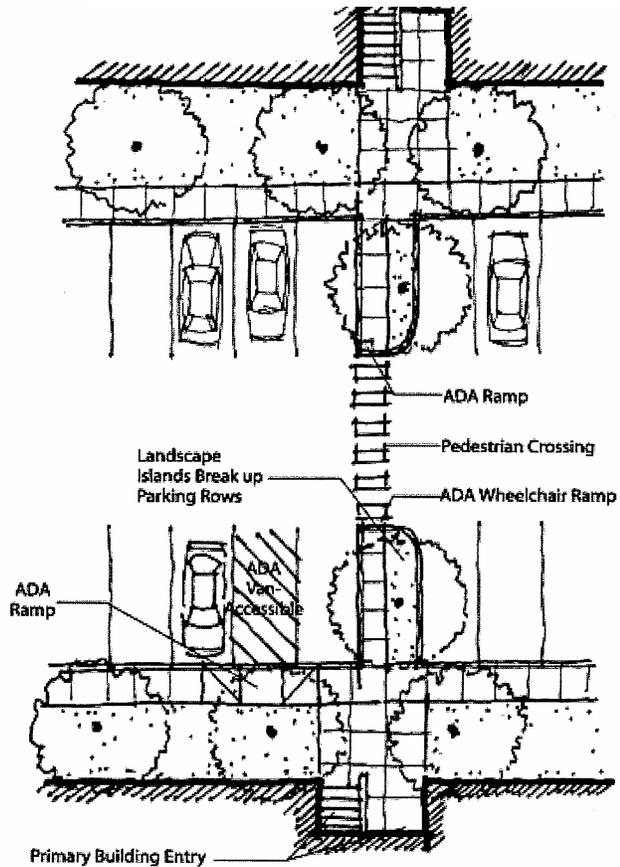


- c. Large parking areas shall be broken up so that no contiguous parking area exceeds three (3) acres. Parking areas may be broken up with plazas, large landscape areas with pedestrian access ways (*i.e.*, at least 20 feet total width), streets, or driveways with street-like features, Street-like features, for the purpose of this section, means a raised sidewalk of at least 4-feet in width, 6-inch curb, accessible curb ramps, street trees in planter strips or tree wells, and pedestrian-oriented lighting.

B. Walkway Design and Construction. Walkways, including those provided with pedestrian access ways, shall conform to all of the standards in subsections 1-4, as generally illustrated in Figure 3.1.300B:

1. Vehicle/Walkway Separation. Except for crosswalks (subsection 2), where a walkway abuts a driveway or street, it shall be raised 6 inches and curbed along the edge of the driveway/street. Alternatively, the decision body may approve a walkway abutting a driveway at the same grade as the driveway if the walkway is protected from all vehicle maneuvering areas. An example of such protection is a row of decorative metal or concrete bollards designed for withstand a vehicle’s impact, with adequate minimum spacing between them to protect pedestrians.
2. Crosswalks. Where walkways cross a parking area, driveway, or street (“crosswalk”), they shall be clearly marked with contrasting paving materials (*e.g.*, light-color concrete inlay between asphalt), which may be part of a raised/hump crossing area. Painted or thermo-plastic striping and similar types of non-permanent applications may be approved for crosswalks not exceeding 24 feet in length.

Figure 3.1.300B Pedestrian Walkway Detail (Typical)



4. Walkway Width and Surface. Walkway and accessway surfaces shall be concrete, asphalt, brick/masonry pavers, or other durable surface, as approved by the City Engineer, at least six (6) feet wide. Multi-use paths (*i.e.*, for bicycles and pedestrians) shall be concrete or asphalt, at least 10 feet wide. (See also, Section 3.4.100 - Transportation Standards for public, multi-use pathway standard.)
5. Accessible routes. Walkways shall comply with applicable Americans with Disabilities Act (ADA) requirements. The ends of all raised walkways, where the walkway intersects a driveway or street shall provide ramps that are ADA accessible, and walkways shall provide direct routes to primary building entrances.

Chapter 3.2 — Landscaping, Street Trees, Fences and Walls

Sections:

- 3.2.100 Purpose**
- 3.2.200 Landscape Conservation**
- 3.2.300 Landscaping**
- 3.2.400 Street Trees**
- 3.2.500 Fences and Walls**

Background: The landscape standards are intended achieve three objectives: 1) protection or conservation of existing significant vegetation, which should be defined based upon local geography and community values; 2) the provision of new landscaping, including street trees, land use buffers, and parking lot landscaping, as the “green infrastructure” of development; and 3) control of fences and walls for safety and security.

References: The Sunset Western Garden Book (Sunset Publishing Corporation) is used widely on both sides of the Cascade Mountains for selection of ornamental plants suited to our climate zones. Oregon State University’s Extension Services is the source for information on native plants (e.g., suitable for water quality facilities), noxious and invasive plants, and plant disease and pest control.

3.2.100 Purpose.

The purpose of Chapter 3.2 is to promote community health, safety, and welfare by protecting natural vegetation and setting development standards for landscaping, street trees, fences, and walls. Together, these elements of the natural and built environment contribute to the visual quality, environmental health, and character of the community. Trees provide climate control through shading during summer months and wind screening during winter. Trees and other plants can also buffer pedestrians from traffic. Walls, fences, trees, and other landscape materials also provide vital screening and buffering between land uses. Landscaped areas help to control surface water drainage and can improve water quality, as compared to paved or built surfaces. The Chapter is organized into the following sections:

Section 3.2.200 Landscape Conservation prevents the indiscriminate removal of significant trees and other vegetation, including vegetation associated with streams, wetlands, and other protected natural resource areas. This section cross-references Chapter 3.7, which regulates development of sensitive lands.

Section 3.2.300 - Landscaping sets standards for and requires landscaping of all development sites that require Site Design Review. This section also requires buffering for parking and maneuvering areas, and between different land use districts. Note that other relevant standards are provided in Article 2, Land Use Districts, for specific types of development.

Section 3.2.400 Street Trees sets standards for and requires planting of trees along [*designated / all*] streets for shading, comfort, and aesthetic purposes.

Section 3.2.500 Fences and Walls sets standards for new fences and walls, including maximum allowable height and materials, to promote security, personal safety, privacy, and aesthetics.

3.2.200 Landscape Conservation

- A. Applicability.** All development sites containing Significant Vegetation, as defined below, shall comply with the standards of this Section. The purpose of this Section is to incorporate significant native vegetation into the landscapes of development and protect vegetation that is subject to requirements for Sensitive Lands (Chapter 3.7). The use of mature, native vegetation within developments is a preferred alternative to removal of vegetation and re-planting. Mature landscaping provides summer shade and wind breaks, controls erosion, and allows for water conservation due to larger plants having established root systems.
- B. Significant Vegetation.** “Significant vegetation” means individual trees and shrubs within designated Sensitive Lands, in accordance with Chapter 3.7, *[and trees and shrubs not within a Sensitive Lands area that have a caliper of [4-6] inches] or larger,* except that protection shall not be required for plants listed as non-native, invasive plants by the Oregon State University (OSU) Extension Service in the applicable OSU bulletins for *[name of] County [and plants listed by the City as prohibited street trees and landscape plants].*
- C. Mapping and Protection Required.** Significant vegetation shall be mapped as required by Chapter 4.2, Site Design Review, and Chapter 3.7, Sensitive Lands. Significant trees shall be mapped individually and identified by species and diameter or caliper at 4 feet above grade. A “protection” area shall be defined around the edge of all branches (drip-line) of each tree. Drip lines may overlap between trees. The City also may require an inventory, survey, or assessment prepared by a qualified professional when necessary to determine construction boundaries, building setbacks, and other protection or mitigation requirements.
- D. Protection Standards.** Significant trees and shrubs identified as meeting the criteria in Section B, above, shall be retained to the extent practicable to minimize the risk of erosion, landslide, and stormwater runoff. Where protection is impracticable because it would prevent reasonable development of public streets, utilities, or land uses permitted by the applicable land use district, the City may allow removal of significant vegetation from the building envelope as defined by required yard setbacks. Where other areas must be disturbed to install streets or utilities, the applicant may be required to restore such areas after construction with landscaping or other means to prevent erosion and to protect the public health, safety, and welfare. With the owner’s consent, the City may accept a land dedication or become a party to a conservation easement on private property for conservation purposes.
- E. Construction.** All significant vegetation on a site that is not otherwise designated and approved by the City for removal shall be protected prior to, during, and after construction in accordance with a limit-of-clearing and grading plan approved by the City. The City may limit grading activities and operation of vehicles and heavy equipment in and around significant vegetation areas to prevent erosion, pollution, or landslide hazards.
- F. Exemptions.** The protection standards in “D” and “E” shall not apply to:
1. Dead or Diseased Vegetation. Dead or diseased vegetation may be removed through a Type I Land Use Review.

2. Hazardous Vegetation and Other Emergencies. Significant vegetation may be removed without land use approval pursuant to Article 4 when the vegetation poses an immediate threat to life or safety, or the vegetation must be removed for other reasons of emergency (e.g., fallen over road or power line, blocked drainage way, or similar circumstance), as determined by the City or emergency service provider.

3.2.300 Landscaping

Background: The standards below reflect more intensive development and less planted area in the main street/downtown zone as compared to other areas. In the downtown, for example, there may be 0-setbacks, and greater use of hardscape areas such as plazas, planter boxes and street tree wells instead of large planting beds or planter strips along the street. As always, the specific standards should be tailored to fit the existing conditions of the community.

A. Applicability. This Section shall apply to all new developments requiring Site Design Review.

B. Landscaping Plan Required. A landscape plan is required. All landscape plans shall conform to the requirements in Chapter 4.2.500, Section B.5 (Landscape Plans).

C. Landscape Area Standards. The minimum percentage of required landscaping equals:

1. Residential and Residential-Commercial Districts. [20] percent of the site.
2. [Downtown/Main Street] District. [0-10] percent of the site.
3. General Commercial District. [10-20] percent of the site.
4. General Industrial District. [0-20] percent of the site.
5. Light Industrial District. [10-20] percent of the site.

{6. [Other].}

D. Landscape Materials. Permitted landscape materials include trees, shrubs, ground cover plants, non-plant ground covers, and outdoor hardscape features, as described below. “Coverage” is based on the projected size of the plants at maturity, i.e., typically three (3) or more years after planting.

1. Existing Vegetation. Existing non-invasive vegetation may be used in meeting landscape requirements. When existing mature trees are protected on the site (e.g., within or adjacent to parking areas) the decision making body may reduce the number of new trees required by a ratio of one (1) inch caliper of new tree(s) for every one (1) inch caliper of existing tree(s) protected.
2. Plant Selection. A combination of deciduous and evergreen trees, shrubs, and ground covers shall be used for all planted areas, the selection of which shall be based on local climate, exposure, water availability, and drainage conditions. When new vegetation is planted, soils shall be amended, as necessary, to allow for healthy plant growth.
3. “Non-native, invasive” plants, as per Section 3.2.200.B, shall be removed during site development and the planting of new invasive species is prohibited.
4. Hardscape features, i.e., patios, decks, plazas, etc., may cover up to [10] percent of the

required landscape area; except in the *[Downtown/Main Street District]* where hardscape features may cover up to *[100]* percent of the landscape area. Swimming pools, sports courts, and similar active recreation facilities may not be counted toward fulfilling the landscape requirement.

5. Ground Cover Standard. All landscaped area, whether or not required, that is not planted with trees and shrubs, or covered with non-plant material (subsection 8, below), shall have ground cover plants that are sized and spaced as follows: a minimum of one plant per 12 inches on center in triangular spacing, or other planting pattern that is designed to achieve *[50-75]* percent coverage of the area not covered by shrubs and tree canopy.
6. Tree Size. Trees shall have a minimum diameter or caliper 4 feet above grade of two *[2]* inches or greater at time of planting.
7. Shrub Size. Shrubs shall be planted from *[5]* gallon containers or larger.
8. Non-plant Ground Covers. Bark dust, chips, aggregate, or other non-plant ground covers may be used, but shall cover no more than *[25-50]* percent of the area to be landscaped and shall be confined to areas underneath plants. Non-plant ground covers cannot be a substitute for ground cover plants.
9. Significant Vegetation. Significant vegetation protected in accordance with Section 3.2.200 may be credited toward meeting the minimum landscape area standards. Credit shall be granted on a per square foot basis. The Street Tree standards of Section 3.2.400 may be waived by the City when existing trees protected within the front yard provide the same or better shading and visual quality as would otherwise be provided by street trees.
10. Storm Water Facilities. Storm water treatment facilities (e.g., detention/retention ponds and swales designed for water quality treatment), when required under Section 3.4.400, shall be landscaped with water tolerant, native plants

E. Landscape Design Standards. All yards, parking lots, and required street tree planter strips shall be landscaped to provide, as applicable, erosion control, visual interest, buffering, privacy, open space and pathway identification, shading, and wind buffering, based on the following criteria:

1. Yard Setback Landscaping. Landscaping in yards shall:
 - a. Provide visual screening and privacy within side and rear yards; while leaving front yards and building entrances mostly visible for security purposes;
 - b. Use shrubs and trees as wind breaks;
 - c. Retain natural vegetation;
 - d. Define pedestrian pathways and open space areas with landscape materials;

- e. Provide focal points within a development, for example, by preserving large or unique trees or groves, hedges, and flowering plants;
 - f. Use trees to provide summer shading within common open space areas and within front yards when street trees cannot be provided;
 - g. Use a combination of plants for year-long color and interest;
 - h. Use landscaping to screen outdoor storage and mechanical equipment areas, and to enhance graded areas such as berms, swales, and detention/retention ponds.
2. Parking areas. A minimum of [10] percent of the total surface area of all parking areas, as measured around the perimeter of all parking spaces and maneuvering areas, shall be landscaped. Such landscaping shall consist of “evenly distributed” shade trees with shrubs and/or ground cover plants that conform to the criteria in Section 3.2.300.E.1.a-h, above. “Evenly distributed” means that the trees and other plants are distributed around the parking lot perimeter and between parking bays to provide a partial canopy. At a minimum, one tree per [6] parking spaces on average shall be planted to create a partial tree canopy over and around the parking area. All parking areas with more than [20] spaces shall include landscape islands with trees to break up the parking area into rows of not more than [10-12] contiguous parking spaces. All parking area landscapes shall have dimensions of not less than 24 square feet of area, or not less than 4 feet in width by 6 feet in length, to ensure adequate soil, water, and space for healthy plant growth.
3. Buffering and Screening Required. Buffering and screening are required under the following conditions:
- a. Parking/Maneuvering Area Adjacent to Streets and Drives. Where a parking or maneuvering area is adjacent and parallel to a street or driveway, an evergreen hedge; decorative wall (masonry or similar quality material) with openings; arcade, trellis, or similar partially opaque structure 3-4 feet in height shall be established between street and driveway. The required screening shall have breaks, where necessary, to allow pedestrian access to the site. The design of the wall or screening shall also provide breaks or openings for visual surveillance of the site and security. Evergreen hedges used to comply with this standard shall be a minimum of 36 inches in height at maturity, and shall be of such species, number, and spacing to provide the required screening within one (1) year after planting. Any areas between the wall/hedge and the street/driveway line shall be landscaped with plants or other vegetative ground cover.
 - b. Parking/Maneuvering Area Adjacent to Building. Where a parking or maneuvering area, or driveway, is adjacent to a building, the area shall be separated from the building by a curb and a raised walkway, plaza, or landscaped buffer not less than [5] feet in width. Raised curbs, bollards, wheel stops, or other design features shall be used to protect pedestrians, landscaping, and buildings from being damaged by

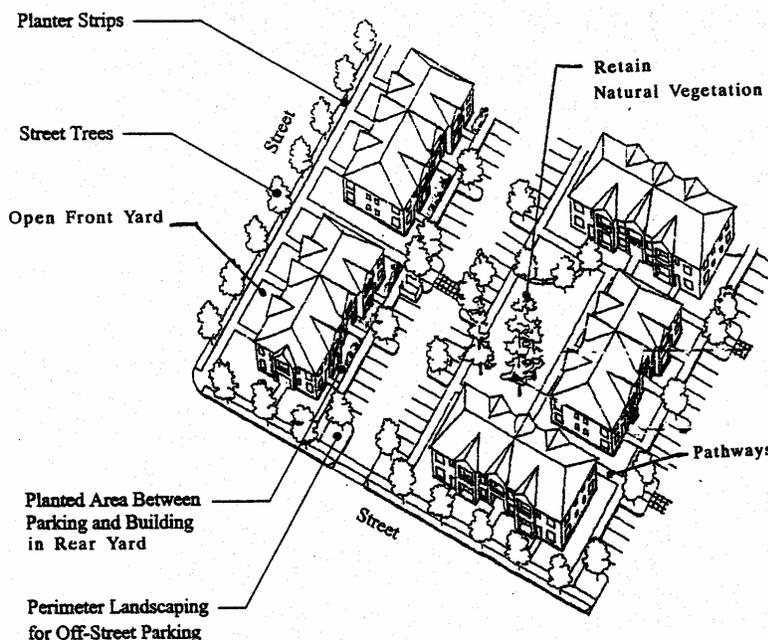
vehicles. Where parking areas are located adjacent to residential ground-floor living space, a 4-foot wide landscape buffer with a curbed edge may fulfill this requirement.

- c. Screening of Mechanical Equipment, Outdoor Storage, Service and Delivery Areas, and Other Screening When Required. All mechanical equipment, outdoor storage and manufacturing, and service and delivery areas, shall be screened from view from all public streets and adjacent Residential districts. When these or other areas are required to be screened, such screening shall be provided by:
 1. a decorative wall (i.e., masonry or similar quality material),
 2. evergreen hedge,
 3. opaque fence complying with Section 3.2.500, or
 4. a similar feature that provides an opaque barrier.

Walls, fences, and hedges shall comply with the vision clearance requirements and provide for pedestrian circulation, in accordance with Chapter 3.1, Access and Circulation. (See Section 3.2.500 for standards specific to fences and walls.)

- d. Flag Lot Screen. In approving a flag lot, the City may require a landscape screen and/or fence be installed along property line(s) of the flag lot, for privacy of adjoining residents, in accordance with the provisions of Section 4.3.115. A flag lot screen shall not be required if the abutting property owner(s) indicate in writing that they do not want a screen or fence, however, the owner may install one at his or her discretion.

Figure 3.2.300E General Landscape Areas (Typical)



F. Maintenance and Irrigation. The use of drought-tolerant plant species is encouraged, and may be required when irrigation is not available. Irrigation shall be provided for plants that

3.2.300 – Landscaping

are not drought-tolerant. If the plantings fail to survive, the property owner shall replace them with an equivalent specimen (i.e., evergreen shrub replaces evergreen shrub, deciduous tree replaces deciduous tree, etc.). All man-made features required by this Code shall be maintained in good condition, or otherwise replaced by the owner.

3.2.400 Street Trees

Background: Street trees in planter strips or tree wells along sidewalks provide shade for pedestrians, promote traffic calming by creating a sense of enclosure on streets, and to slow storm water runoff. Even when deciduous trees lose their leaves they can serve as wind breaks and slow runoff. The specific tree planting requirements (size of tree, spacing, staking, and maintenance) should be determined based on the local conditions and requirements of the road authority, if any. The guidelines below are meant to be adapted to address local needs, and it is recommended that cities adopt their own street tree list.

References: The City of Eugene and Baker City each have thorough street tree manuals which other jurisdictions may find useful.

Street trees shall be planted for all developments that are subject to Subdivision or Site Design Review. Requirements for street tree planting strips are provided in Section 3.4.100, Transportation Standards. Planting of street trees shall generally follow construction of curbs and sidewalks, however, the City may defer tree planting until final inspection of completed dwellings to avoid damage to trees during construction. The planting and maintenance of street trees shall conform to the following standards and guidelines and any applicable road authority requirements:

- A. Growth Characteristics.** Trees shall be selected based on climate zone, growth characteristics and site conditions, including available space, overhead clearance, soil conditions, exposure, and desired color and appearance. The following should guide tree selection by developers and approval by the City:
1. Provide a broad canopy where shade is desired, except where limited by available space or except in section 4.
 2. Use low-growing trees for spaces under low utility wires.
 3. Select trees which can be “limbed-up” to comply with vision clearance requirements.
 4. Use narrow or “columnar” trees where awnings or other building features limit growth, or where greater visibility is desired between buildings and the street.
 5. Use species with similar growth characteristics on the same block for design continuity.
 6. Avoid using trees that are susceptible to insect damage and trees that produce excessive seeds or fruit.
 7. Select trees that are well-adapted to the environment, including soil, wind, sun exposure, temperature tolerance, and exhaust. Drought-resistant trees should be chosen where they suit the specific soil type.
 8. Select trees for their seasonal color if desired.
 9. Use deciduous trees for summer shade and winter sun, unless unsuited to the location due to soil, wind, sun exposure, annual precipitation, or exhaust.

10. The diameter of the tree trunk at maturity shall not exceed the width and size of the planter strip or tree well.

- B. Caliper Size.** The minimum diameter or caliper size at planting, as measured 4 feet above grade, shall be [2] inches.
- C. Spacing and Location.** Street trees shall be planted within the street right-of-way within existing and proposed planting strips or in sidewalk tree wells on streets without planting strips, except when utility easements occupy these areas. Street tree spacing shall be based upon the type of tree(s) selected and the canopy size at maturity and, at a minimum, the planting area shall contain 16 square feet, or typically, 4 feet by 4 feet. In general, trees shall be spaced no more than 30 feet apart, except where planting a tree would conflict with existing trees, retaining walls, utilities and similar physical barriers. All street trees shall be placed outside utility easements.
- D. Soil Preparation, Planting and Care.** The developer shall be responsible for planting street trees, including soil preparation, ground cover material, staking, and temporary irrigation for two years after planting. *[The developer shall also be responsible for tree care (pruning, watering, fertilization, and replacement as necessary) during the first two years after planting, after which the adjacent property owners shall maintain the trees].*
- E. Assurances.** [ALTERNATIVE 1: *The developer shall pay a fee to the City, in accordance with the adopted fee schedule, for each required street tree. The fee shall cover the City's expense for the first two years of care.* ALTERNATIVE 2: *The City shall require the developer to provide a performance and maintenance bond in an amount determined by the City Engineer, to ensure the planting of the tree(s) and care during the first two years after planting.*]
- [F. Street Tree List.** *See Ordinance No. x/Chapter for an official list of permitted street tree species.]*

3.2.500 Fences and Walls

Construction of fences and walls shall conform to all of the following requirements:

A. General Requirements. All fences and walls shall comply with the height limitations of the respective zoning district (Article 2) and the standards of this Section. The City may require installation of walls and/or fences as a condition of development approval, in accordance with land division approval (e.g., flag lots), approval of a conditional use permit, or site design review approval. When required through one of these types of approvals, no further land use review is required. If not part of a prior land use approval, new fences and walls require Land Use Review (Type I) approval; if greater than 6 feet in height, a building permit is also required. (See also, Section 3.2.300 for landscape screening wall requirements.)

B. Dimensions.

1. Except as provided under subsections 2 and 3, below, the height of fences and walls within a front yard setback shall not exceed 4 feet as measured from the grade closest to the street right-of-way.
2. A retaining wall exceeding 4 feet in height within a front yard setback, which is necessary for site grading and development, may be approved through a land division or site development review.
3. One arbor, gate, or similar garden structures not exceeding 8 feet in height and 4 feet in width is allowed within the front yard, provided that it is not within a clear vision triangle.
3. Walls and fences to be built for required buffers shall comply with Section 3.2.300.
4. Fences and walls shall comply with the vision clearance standards of Section 3.1.200.

C. Maintenance. For safety and for compliance with the purpose of this Chapter, walls and fences required as a condition of development approval shall be maintained in good condition, or otherwise replaced by the property owner.

[D. Materials.

1. *Permitted fence and wall materials: wood; metal; bricks, stone; stucco, or similar masonry, and non-prohibited evergreen plants.*
2. *Prohibited fence and wall materials: concrete blocks; straw bales; barbed or razor wire; scrap lumber, metal, or other scrap materials; hedges higher than 8 feet.*
3. *Fences or walls constructed of brick or masonry exceeding 4 feet in height shall be subject to review and approval by the City Engineer. Those that are taller than 6 feet also require a building permit.]*

Chapter 3.3 — Parking and Loading

Sections:

3.3.100 Purpose

3.3.200 Applicability

3.3.300 Automobile Parking Standards

3.3.400 Bicycle Parking Standards

3.3.500 Loading

Background: The minimum parking standards in Chapter 3.3 balance parking demand with community goals for land use efficiency and resource conservation. Excessive surface parking consumes land that could otherwise be used for employment or housing. It also increases reliance on the automobile by spreading uses apart, and it contributes to storm water runoff and water quality problems. The model code is designed to minimize these effects while being flexible. This chapter provides a basic set of parking standards and encourages reductions in required parking when requested by applicants through individual or case-by-case determinations of parking need for specific uses. The model code also encourages shared parking where two or more businesses with different peak customer hours can agree to pool their parking. By using the standards in Chapter 3.3 in conjunction with other model code standards, such as those for building orientation in Article 2, pedestrian walkways in Section 3.1.200, and interconnected streets with sidewalks and on-street parking in Section 3.4.100, your code can support attractive and walkable developments that conserve land and while providing for parking.

3.3.100 Purpose

The purpose of this Chapter is to provide basic and flexible standards for development of vehicle and bicycle parking. The design of parking areas is critically important to the economic viability of some commercial areas, pedestrian and driver safety, the efficient and safe operation of adjoining streets, and community image and livability. Historically, some communities have required more parking than is necessary for some land uses, paving extensive areas of land that could be put to better use. Because vehicle parking facilities occupy large amounts of land, they must be planned and designed carefully to use the land efficiently, minimize stormwater runoff, and maintain the visual character of the community. This Chapter recognizes that each development has unique parking needs and provides a flexible approach for determining parking space requirements (i.e., “minimum” and “performance-based” standards). This Chapter also provides standards for bicycle parking because many people use bicycles for recreation, commuting, and general transportation. Children as well as adults need safe and adequate spaces to park their bicycles throughout the community.

3.3.200 Applicability.

All developments subject to site design review (Chapter 4.2), including development of parking facilities, shall comply with the provisions of this Chapter.

3.3.300 Automobile Parking Standards.

Background: Parking requirements can vary widely from community to community. Model codes that are based on outdated studies and national averages, are often duplicated without a close analysis of local conditions, resulting in excessive parking requirements. Requiring too much parking can have the unintended consequence of increasing housing costs, discouraging (or endangering) pedestrians, and squelching downtown or main street development. For these reasons the model code requires minimal parking and encourages flexibility in determining parking needs for individual uses. The model code also encourages flexibility in where parking is located (e.g., parking lots, garages, in bays along driveways, shared parking, and designated on-street parking), provided that it meets minimum dimensional standards.

For more information on parking standards, please see the following articles and resources: Governing Magazine, June 2005 (<http://66.23.131.98/archive/2005/jun/assess.txt>), Planning Magazine, May 2005 (www.planning.org/planning/member/2005may/parking.htm), and Victoria Transportation Policy Institute (www.vtpi.org/tdm/index.php#parking).

Cross-Reference: The parking standards in Section 3.3.300 are organized using the same land use categories as in Article 2. For specific examples of land uses under each category, please refer to Chapter 1.4.

A. Vehicle Parking - Minimum Standards by Use. The number of required off-street vehicle parking spaces shall be determined in accordance with the standards in Table 3.3.300A, or alternatively, through a separate parking demand analysis prepared by the applicant and subject to a Type II Land Use Review (or Type III review if the request is part of an application that is already subject to Type III review). Where a use is not specifically listed in this table, parking requirements are determined by finding that a use is similar to one of those listed in terms of parking needs, or by estimating parking needs individually using the demand analysis option described above. Parking that counts toward the minimum requirement is parking in garages, carports, parking lots, bays along driveways, shared parking, and designated on-street parking. *[There is no minimum number of off-street parking spaces required in the Downtown / Main Street District (or in designated historic districts); however, the “maximum parking” standards of this Chapter apply.]*

Table 3.3.300A – Minimum Required Parking by Use

Use Categories <i>(Examples of uses are in Chapter 1.4; definitions are in Chapter 1.3.)</i>	Minimum Parking per Land Use <i>(fractions rounded down to the closest whole number)</i>
Residential Categories	
Household Living	
Accessory Dwelling	None
Single Family Dwelling, including attached and detached dwellings and manufactured homes	None, except attached dwellings shall conform to the parking requirements for multifamily uses
Duplex	3 spaces per duplex

3.3.300 – Automobile Parking Standards

Use Categories <i>(Examples of uses are in Chapter 1.4; definitions are in Chapter 1.3.)</i>	Minimum Parking per Land Use (fractions rounded down to the closest whole number)
Multifamily	1 space per studio or 1-bedroom unit 1.5 spaces/unit per 2-bedroom unit 2 spaces/unit per 3-bedroom or larger unit
Group Living, such as nursing or convalescent homes, rest homes, assisted living, congregate care, and similar special needs housing	0.5 space per 4 bedrooms
Commercial Categories	
Drive-Up/Drive-In/Drive-Through (drive-up windows, kiosks, ATM's, similar uses/facilities), per Section 2.3.190	No requirement. See Section 2.3.190 for queuing area requirements
Bed and Breakfast Inn	1 space per bedroom
Educational Services, not a school (e.g., tutoring or similar services)	2 space per 1,000 sq. ft. floor area
Entertainment, Major Event	per CU review (Chapter 4.4)
Offices	2 spaces per 1,000 sq. ft. floor area
Outdoor Recreation, Commercial	per CU review (Chapter 4.4)
Parking Lot (when not an accessory use)	per CU review (Chapter 4.4)
Quick Vehicle Servicing or Vehicle Repair. (See also Drive-Up/Drive-In/Drive-Through Uses, per Section 2.3.190)	2 spaces, or per CU review (Chapter 4.4)
Retail Sales and Service (See also Drive-Up Uses)	<u>Retail:</u> 2 spaces per 1,000 sq. ft., except bulk retail (e.g., auto, boat, trailers, nurseries, lumber and construction materials, furniture, appliances, and similar sales) 1 per 1,000 sq. ft.
	<u>Restaurants and Bars:</u> 8 spaces per 1,000 sq. ft. floor area
	<u>Health Clubs, Gyms, Continuous Entertainment (e.g., bowling alleys):</u> 3 space per 1,000 sq. ft.
	<u>Lodging (hotels, motels, inns),</u> (see also Bed and Breakfast Inns): 0.75 per rentable room; for associated uses, such as restaurants, entertainment uses, and bars, see above

3.3.300 – Automobile Parking Standards

Use Categories <i>(Examples of uses are in Chapter 1.4; definitions are in Chapter 1.3.)</i>	Minimum Parking per Land Use (fractions rounded down to the closest whole number)
	Theaters and Cinemas: 1 per 6 seats
Self-Service Storage	No standard
Industrial Categories	
Industrial Service (See also Drive-Up Uses)	1 space per 1,000 sq. ft. of floor area
Manufacturing and Production	1 space per 1,000 sq. ft. of floor area
Warehouse and Freight Movement	0.5 space per 1,000 sq. ft. of floor area
Waste-Related	per CU review (Chapter 4.4)
Wholesale Sales - fully enclosed - not enclosed	1 space per 1,000 sq. ft. per CU review (Chapter 4.4)
Institutional Categories	
Basic Utilities	None
<i>[Colleges]</i>	<i>[per CU review (Chapter 4.4)]</i>
Community Service	1 space per 200 sq. ft. of floor area
Daycare, adult or child day care; does not include Family Daycare (12 or fewer children) under ORS 657A.250	1 space per 500 sq. ft. of floor area
Parks and Open Space	Determined per CU review (Chapter 4.4) for active recreation areas, or no standard
Religious Institutions and Houses of Worship	1 space per 75 sq. ft. of main assembly area; or per CU review, as applicable
Schools	<u>Grade, elementary, middle, junior high schools:</u> 1 space per classroom, or per CU review (Chapter 4.4)

Use Categories <i>(Examples of uses are in Chapter 1.4; definitions are in Chapter 1.3.)</i>	Minimum Parking per Land Use (fractions rounded down to the closest whole number)
	<u>High schools:</u> 7 per classroom, or per CU review (Chapter 4.4)
Other Categories	
Accessory Uses (with a permitted use)	No standard, except some uses may be required to provide parking under the minimum standards for primary uses, as determined by the decision body through Land Use Review, Conditional Use Permit review, or Site Design Review.
Agriculture – Animals	None, or per CU review (Chapter 4.4)
Agriculture – Nurseries and similar horticulture	See Retail Sales and Wholesale, as applicable
Mining	Determined per CU review (Chapter 4.4)
Radio Frequency Transmission Facilities	None
Rail Lines and Utility Corridors, except those existing prior to effective date of Development Code are allowed.	None
Temporary Uses (limited to “P” and “CU” uses), per Section 4.9.100.	As determined per Section 4.9.100
Transportation Facilities (operation, maintenance, preservation, and construction [<i>in accordance with the City’s Transportation System Plan</i>])	None

B. Vehicle Parking - Minimum Accessible Parking

1. Accessible parking shall be provided for all uses in accordance the standards in Table 3.3.300B; parking spaces used to meet the standards in Table 3.3.300B shall be counted toward meeting off-street parking requirements in Table 3.3.300A;
2. Such parking shall be located in close proximity to building entrances and shall be

- designed to permit occupants of vehicles to reach the entrance on an unobstructed path or walkway;
3. Accessible spaces shall be grouped in pairs where possible;
 4. Where covered parking is provided, covered accessible spaces shall be provided in the same ratio as covered non-accessible spaces;
 5. Required accessible parking spaces shall be identified with signs and pavement markings identifying them as reserved for persons with disabilities; signs shall be posted directly in front of the parking space at a height of no less than 42 inches and no more than 72 inches above pavement level. Van spaces shall be specifically identified as such.

Table 3.3.300B - Minimum Number of Accessible Parking Spaces			
Source: ADA Standards for Accessible Design 4.1.2(5)			
Total Number of Parking Spaces Provided (per lot)	Total Minimum Number of Accessible Parking Spaces (with 60" access aisle, or 96" aisle for vans*)	Van Accessible Parking Spaces with min. 96" wide access aisle	Accessible Parking Spaces with min. 60" wide access aisle
	<i>Column A</i>		
1 to 25	1	1	0
26 to 50	2	1	1
51 to 75	3	1	2
76 to 100	4	1	3
101 to 150	5	1	4
151 to 200	6	1	5
201 to 300	7	1	6
301 to 400	8	1	7
401 to 500	9	2	7
501 to 1000	2% of total parking provided in each lot	1/8 of Column A**	7/8 of Column A***
1001	20 plus 1 for each 100 over 1000	1/8 of Column A**	7/8 of Column A***
*vans and cars may share access aisles			
one out of every 8 accessible spaces		*7 out of every 8 accessible parking spaces	

C. On-Street Parking. On-street parking shall conform to the following standards:

1. Dimensions. The following constitutes one on-street parking space:
 - a. Parallel parking, each [22] feet of uninterrupted curb;
 - b. [45/60] degree diagonal, each with [12] feet of curb;
 - c. 90 degree (perpendicular) parking, each with [12] feet of curb.
2. Location. Parking may be counted toward the minimum standards in Table 3.3.300A when it is on the block face abutting the subject land use. An on-street parking space must not obstruct a required clear vision area and its must not violate any law or street

standard.

3. Public Use Required for Credit. On-street parking spaces counted toward meeting the parking requirements of a specific use may not be used exclusively by that use, but shall be available for general public use at all times. Signs or other actions that limit general public use of on-street spaces are prohibited.

D. Shared parking. Required parking facilities for two or more uses, structures, or parcels of land may be satisfied by the same parking facilities used jointly, to the extent that the owners or operators show that the need for parking facilities does not materially overlap (e.g., uses primarily of a daytime versus nighttime nature; weekday uses versus weekend uses), and provided that the right of joint use is evidenced by a recorded deed, lease, contract, or similar written instrument establishing the joint use. The City may approve owner requests for shared parking through Land Use Review.

E. Off-site parking. Except for single-family dwellings, the vehicle parking spaces required by this Chapter may be located on another parcel of land, provided the parcel is within [300-500] feet of the use it serves and the City has approved the off-site parking through Land Use Review. The distance from the parking area to the use shall be measured from the nearest parking space to a building entrance, following a sidewalk or other pedestrian route. The right to use the off-site parking must be evidenced by a recorded deed, lease, easement, or similar written instrument.

F. General Parking Standards.

1. Location. Parking is allowed only on streets, within garages, carports, and other structures, or on driveways or parking lots that have been developed in conformance with this code. Article 2, Land Use Districts, prescribes parking location for some land uses (e.g., the requirement that parking for some multiple family and commercial developments be located to side or rear of buildings), and Chapter 3.1, Access and Circulation, provides design standards for driveways. Street parking spaces shall not include space in a vehicle travel lane (including emergency or fire access lanes), public right-of-way, pedestrian accessway, landscape, or other undesignated area.
2. Mixed uses. If more than one type of land use occupies a single structure or parcel of land, the total requirements for off-street automobile parking shall be the sum of the requirements for all uses, unless it can be shown that the peak parking demands are actually less (i.e., the uses operate on different days or at different times of the day). The City may reduce the total parking required accordingly through Land Use Review.
4. Availability of facilities. Owners of off-street parking facilities may post a sign indicating that all parking on the site is available only for residents, customers, and/or employees. Signs shall conform to the standards of Chapter 3.9.
5. Lighting. Parking areas shall have lighting to provide at least 2 foot-candles of illumination over parking spaces and walkways. Light standards shall be directed downward only and shielded to prevent lighting spillover into any adjacent residential district or use.

6. Screening of Parking Areas. Parking spaces shall be located or screened so that headlights do not shine onto adjacent residential uses, per Section 3.2.300E.

G. Parking Stall Design and Minimum Dimensions. All off-street parking spaces shall be improved to conform to City standards for surfacing, stormwater management, and striping. Standard parking spaces shall conform to the following standards and the dimensions in Figures 3.3.300F(1) through (3), and Table 3.3.300F:

1. Motor vehicle parking spaces shall measure eight (8) feet six (6) inches wide by eighteen (18) feet long or by sixteen (16) feet long, with not more than a two (2) foot overhang when allowed;
2. All parallel motor vehicle parking spaces shall measure eight (8) feet six (6) inches by twenty-two (22) feet;
3. Parking area layout shall conform to the dimensions in Figure 3.3.300F(1) and (2), and Table 3.3.300F, below;
4. Parking areas shall conform to Americans With Disabilities Act (ADA) standards for parking spaces (dimensions, van accessible parking spaces, etc.). Parking structure vertical clearance, van accessible parking spaces, should refer to Federal ADA guidelines; and
5. Bicycle parking shall be on a two (2) feet by six (6) feet minimum concrete pad per bike, or within a garage or patio of residential use.

Figure 3.3.300F(1) - Parking Area Layout

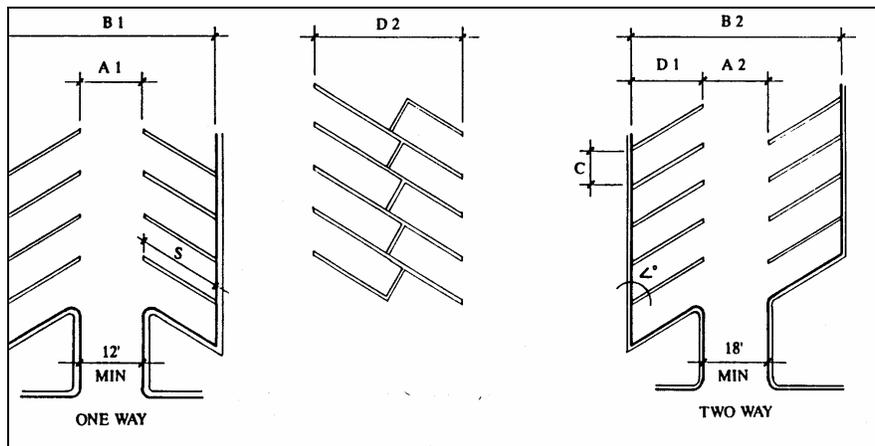


Figure 3.3.300.F(2) Disabled Person Parking Requirements

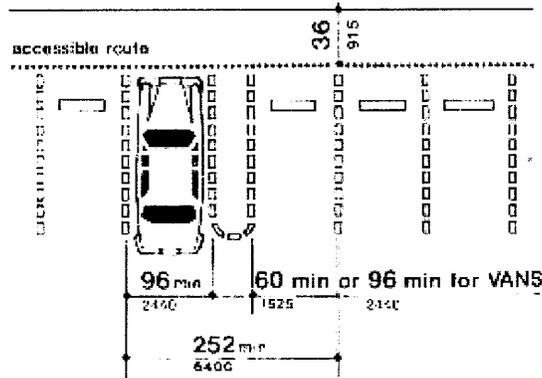


Table 3.3.300F - Parking Area Layout

	PARKING ANGLE < °	CURB LENGTH H	STALL DEPTH		AISLE WIDTH		BAY WIDTH		STRIPE LENGTH
			SINGLE D1	DOUBLE D2	ONE WAY A1	TWO WAY A2	ONE WAY B1	TWO WAY B2	
Standard Space (See Figure 3.3.300F(3) for ADA space requirements)	90°	8'-6"	18'	36'	23'	23'	59'	59'	18'
	60°	10'	20'	40'	17'	18'	57'	58'	23'
	45°	12'	18'-6"	37'	13'	18'	50'	55'	26'-6"
	30°	17'	16'-6"	33'	12'	18'	45'	51'	32'-8"
	0°	22'	8'-6"	17'	12'	18'	29'	35'	8'-6"

Important cross-references:

See also, Article 2, Land Use District standards, for parking location requirements for some multifamily and commercial land uses; Chapter 3.1, Access and Circulation, for driveway standards; Chapter 3.2, Landscaping [;and Chapter 3.5, Surface Water Management].

3.3.400 Bicycle Parking Requirements

Background: Section 3.3.400 implements part of the Transportation Planning Rule, which requires bicycle parking. (OAR 660-012-0045)

All uses that are subject to Site Design Review shall provide bicycle parking, in conformance with the standards in Table 3.3.400, and subsections A-H, below.

A. Minimum Required Bicycle Parking Spaces. Uses shall provide long- and short-term bicycle parking spaces, as designated in Table 3.3.400. Where two options are provided (*e.g.*, 2 spaces, or 1 per 8 bedrooms), the option resulting in more bicycle parking is used.

Table 3.3.400 Minimum Required Bicycle Parking Spaces			
Use Categories	Specific Uses	Long-term Spaces (covered or enclosed)	Short-term Spaces (near building entry)
Residential Categories			
Household Living	Multifamily	1 per 4 units	2, or 1 per 20 units
Group Living		2, or 1 per 20 bedrooms	None
	Dormitory	1 per 8 bedrooms	None
Commercial Categories			
Retail Sales And Service		2, or 1 per 12,000 sq. ft. of floor area	2, or 1 per 5,000 sq. ft. of floor area
	Lodging	2, or 1 per 20 rentable rooms	2, or 1 per 20 rentable rooms
Office		2, or 1 per 10,000 sq. ft. of floor area	2, or 1 per 40,000 sq. ft. of floor area
Commercial Outdoor Recreation		8, or 1 per 20 auto spaces	None
Major Event Entertainment		8, or 1 per 40 seats or per CU review	None
Industrial Categories			
Manufacturing And Production		2, or 1 per 15,000 sq. ft. of floor area	None
Warehouse And Freight Movement		2, or 1 per 40,000 sq. ft. of floor area	None
Institutional Categories			
Basic Utilities	Bus transit center	8	None
Community Service		2, or 1 per 10,000 sq. ft. of floor area	2, or 1 per 10,000 sq. ft. of floor area
	Park and ride	8, or 5 per acre	None
Parks (active recreation areas only)		None	8, or per CU review
Schools	Grades 2-5	1 per classroom, or per CU review	1 per classroom, or per CU review
	Grades 6-12	2 per classroom, or per CU review	4 per school, or per CU review

Table 3.3.400 Minimum Required Bicycle Parking Spaces			
Use Categories	Specific Uses	Long-term Spaces (covered or enclosed)	Short-term Spaces (near building entry)
Colleges	Excluding dormitories (see Group Living, above)	2, or 1 per 20,000 sq. ft. of net building area, or per CU review	2, or 1 per 10,000 sq. ft. of net building area, or per CU review
Medical Centers		2, or 1 per 70,000 sq. ft. of net building area, or per CU review	2, or 1 per 40,000 sq. ft. of net building area, or per CU review
Religious Institutions and Places of Worship		2, or 1 per 4,000 sq. ft. of net building area	2, or 1 per 2,000 sq. ft. of net building area
Daycare		2, or 1 per 10,000 sq. ft. of net building area	None
Other Categories			
Other Categories	Determined through Land Use Review, Site Design Review, or CU Review, as applicable		

- B. Exemptions.** This Section does not apply to single-family and two-family housing (attached, detached, or manufactured housing), home occupations, agriculture and livestock uses.
- C. Location and Design.** Bicycle parking should be no farther from the main building entrance than the distance to the closest vehicle space, or 50 feet, whichever is less. Long-term (*i.e.*, covered) bicycle parking should be incorporated whenever possible into building design. Short-term bicycle parking, when allowed within a public right-of-way, should be coordinated with the design of street furniture, as applicable.
- D. Visibility and Security.** Bicycle parking for customers and visitors of a use shall be visible from street sidewalks or building entrances, so that it provides sufficient security from theft and damage;
- E. Options for Storage.** Long-term bicycle parking requirements for multiple family uses and employee parking can be met by providing a bicycle storage room, bicycle lockers, racks, or other secure storage space inside or outside of the building;
- F. Lighting.** For security, bicycle parking shall be at least as well lit as vehicle parking..
- G. Reserved Areas.** Areas set aside for bicycle parking shall be clearly marked and reserved for bicycle parking only.
- H. Hazards.** Bicycle parking shall not impede or create a hazard to pedestrians. Parking areas shall be located so as to not conflict with vision clearance standards (Chapter 3.1, Access and Circulation).

3.3.400 Loading Areas.

Background: The Loading Area provisions are typical, except that subsection E allows for the use of a street right-of-way loading area under certain conditions. This exception is meant to conserve land for employment uses, particularly in the downtown and main street zones. Some cities' codes prohibit vehicles backing onto a public right-of-way (except single family uses), so it is important to check for that restriction and allow reasonable exceptions.

A. Purpose. The purpose of this section of the Code is to provide standards (1) for a minimum number of off-street loading spaces that will ensure adequate loading areas for large uses and developments, and (2) to ensure that the appearance of loading areas is consistent with that of parking areas.

B. Applicability. Section 3.3.400 applies to residential projects with 50 or more dwelling units, and non-residential and mixed-use buildings with 20,000 square feet or more total floor area.

C. Number of Loading Spaces.

1. Residential buildings. Buildings where all of the floor area is in residential use shall meet the following standards:
 - a. Fewer than 50 dwelling units on a site that abuts a local street: No loading spaces are required.
 - b. All other buildings: One space.
2. Non-residential and mixed-use buildings. Buildings where any floor area is in non-residential uses shall meet the following standards:
 - a. Less than 20,000 square feet total floor area: No loading spaces required.
 - b. 20,000 to 50,000 square feet of total floor area: One loading space.
 - c. More than 50,000 square feet of total floor area: Two loading spaces.

D. Size of Spaces. Required loading spaces shall be at least 35 feet long and 10 feet wide, and shall have a height clearance of at least 13 feet.

E. Placement, setbacks, and landscaping. Loading areas shall conform to the setback and perimeter landscaping standards in Articles 2 and 3. Where parking areas are prohibited between a building and the street, loading areas are also prohibited. The decision body may approve a loading area adjacent to or within the street right-of-way through Site Design Review or Conditional Use Permit review, as applicable, where it finds that loading and unloading operations are short in duration (*i.e.*, less than one hour), not obstruct traffic during peak traffic hours, or interfere with emergency response services.

Chapter 3.4 — Public Facilities

Sections:

- 3.4.010 Purpose and Applicability**
- 3.4.100 Transportation Standards**
- 3.4.200 Public Use Areas**
- 3.4.300 Sanitary Sewer and Water Service Improvements**
- 3.4.400 Storm Drainage Improvements**
- 3.4.500 Utilities**
- 3.4.600 Easements**
- 3.4.700 Construction Plan Approval and Assurances**
- 3.4.800 Installation**

Background: Chapter 3.4 provides standards for new developments and land divisions, and general procedures for the review of public improvement plans. The model code also cross-references the city's public facility master plans (water, sanitary sewer, storm drainage), Transportation System Plan, and engineering design criteria and standards. Bracketed text indicates the need to customize the code based on local standards and practices.

Transportation Planning Rule: Section 3.4.100 implements parts of OAR 660-012-0045 and 660-012-0060. It provides functional classifications for streets, typical street sections, and improvement standards (i.e., operation, safety, level of service, etc.). The street sections that are provided for local streets, collectors, and arterials address the TPR provisions related to narrow street standards. These standards should be adapted to address local conditions, including the design requirements of emergency response service providers.

Reference: See the Transportation and Growth Management Program's *Neighborhood Street Design Guidelines: an Oregon Guide for Reducing Street Widths*.

3.4.010 Purpose and Applicability

- A. Purpose.** The purpose of this Chapter is to provide planning and design standards for public and private transportation facilities and utilities. Streets are the most common public spaces, touching virtually every parcel of land. Therefore, one of the primary purposes of this Chapter is to provide standards for attractive and safe streets that can accommodate vehicle traffic from planned growth and provide a range of transportation options, including options for driving, walking, [*bus transit*], and bicycling. This Chapter is also intended to implement the City's Transportation System Plan.
- B. When Standards Apply.** Unless otherwise provided, the standard specifications for construction, reconstruction, or repair of transportation facilities, utilities, and other public improvements within the City shall occur in accordance with the standards of this Chapter. No development may occur unless the public facilities related to development comply with the public facility requirements established in this Chapter.
- C. Engineering Design Criteria, Standard Specifications and Details.** [*The Standard Specifications for Public Works Construction, Oregon Chapter A.P.W.A., shall be a part of the City's adopted installation standard(s); other standards may also be required upon recommendation of the City Engineer.*] The design criteria, standard construction specifications and details maintained by the City Engineer, or any other road authority with

jurisdiction, shall supplement the general design standards of this Development Code. The City’s specifications, standards, and details are hereby incorporated into this code by reference.

D. Conditions of Development Approval. No development may occur unless required public facilities are in place or guaranteed, in conformance with the provisions of this Code. Improvements required as a condition of development approval, when not voluntarily accepted by the applicant, shall be roughly proportional to the impact of the development on public facilities. Findings in the development approval shall indicate how the required improvements are directly related and roughly proportional to the impact.

3.4.100 Transportation Standards

A. Development Standards. The following standards shall be met for all new uses and developments:

1. All new lots created, consolidated, or modified through a land division, partition, lot line adjustment, lot consolidation, or street vacation must have frontage or approved access to a public street.
2. Streets within or adjacent to a development shall be improved in accordance with the Transportation System Plan and the provisions of this Chapter.
3. Development of new streets, and additional street width or improvements planned as a portion of an existing street, shall be improved in accordance with this Section, and public streets shall be dedicated to the applicable road authority;
4. New streets and drives shall be paved.

B. Guarantee. The City may accept a future improvement guarantee (*e.g.*, owner agrees not to object to the formation of a local improvement district in the future) in lieu of street improvements if one or more of the following conditions exist:

1. A partial improvement may create a potential safety hazard to motorists or pedestrians;
2. Due to the developed condition of adjacent properties it is unlikely that street improvements would be extended in the foreseeable future and the improvement associated with the project under review does not, by itself, provide increased street safety or capacity, or improved pedestrian circulation;
3. The improvement would be in conflict with an adopted capital improvement plan; or
4. The improvement is associated with an approved land partition in the RL or RM District and the proposed land partition does not create any new streets.

C. Creation of Rights-of-Way for Streets and Related Purposes. Streets shall be created through the approval and recording of a final subdivision or partition plat; except the City may approve the creation of a street by acceptance of a deed, provided that the street is deemed in the public interest by the City Council for the purpose of implementing the Transportation System Plan, and the deeded right-of-way conforms to the standards of this Code.

D. Creation of Access Easements. The City may approve an access easement when the easement is necessary to provide for access and circulation in conformance with Chapter 3.1, Access and Circulation. Access easements shall be created and maintained in accordance with the Uniform Fire Code Section 10.207.

E. Street Location, Width, and Grade. Except as noted below, the location, width and grade of

all streets shall conform to the Transportation System Plan and an approved street plan or subdivision plat. Street location, width, and grade shall be determined in relation to existing and planned streets, topographic conditions, public convenience and safety, and in appropriate relation to the proposed use of the land to be served by such streets:

1. Street grades shall be approved by the City Engineer in accordance with the design standards in Section ‘N’, below; and
2. Where the location of a street is not shown in an existing street plan, the location of streets in a development shall either:
 - a. provide for the continuation and connection of existing streets in the surrounding areas, conforming to the street standards of this Chapter, or
 - b. conform to a street plan adopted by the City if it is impractical to connect with existing street patterns because of particular topographical or other existing conditions of the land. Such a plan shall be based on the type of land use to be served, the volume of traffic, the capacity of adjoining streets, and the need for public convenience and safety.

F. Minimum Rights-of-Way and Street Sections. Street rights-of-way and improvements shall be the widths in Table 3.4.100. A variance shall be required to vary the standards in Table 3.4.100. Where a range of width is indicated, the width shall be the narrower in the range unless unique and specific conditions exists as determined by the decision-making authority based upon the following factors:

1. Street classification in the Transportation System Plan;
2. Anticipated traffic generation;
3. On-street parking needs;
4. Sidewalk and bikeway requirements based on anticipated level of use;
5. Requirements for placement of utilities;
6. Street lighting;
7. Minimize drainage, slope, and sensitive lands impacts, as identified by Chapter 3.7;
8. Street tree location, as provided for in Chapter 3.2;
9. Protection of significant vegetation, as provided for in Chapter 3.2;
10. Safety and comfort for motorists, bicyclists, and pedestrians;
11. Street furnishings (e.g., benches, lighting, bus shelters, etc.), when provided;
12. Access needs for emergency vehicles; and
13. Transition between different street widths (i.e., existing streets and new streets).

Table 3.4.100F Street Standards from the adopted Transportation System Plan

Street Type	Ave. Daily Trips (ADT)	Right-of-Way Width	Curb-to-Curb Paved Width	Within Curb-to-Curb Area				Curbs	Planting Strips or Tree Wells	Side-walks
				Motor Vehicle Travel Lanes	Median/Center Turn Lane	Bike Lanes	On-Street Parking			
Arterials	8,000-30,000 ADT									
Boulevards:										
2-Lane Boulevard		61'-87'	34'	11'	None	2 at 6'	8' bays	6"	7'-12'	5'-12'
3-Lane Boulevard		73'-99'	46'	11'	12'	2 at 6'	8' bays	6"	7'-12'	5'-12'
5-Lane Boulevard		95'-121'	68'	11'	12'	2 at 6'	8' bays	6"	7'-12'	5'-12'
Avenues:										
2-Lane Avenue	3,000 to 10,000 ADT	59'-86'	32'-33'	10'-10.5'	none	2 at 6'	8' bays	6"	7'-12'	5'-12'
3-Lane Avenue		70.5'-97.5'	43.5'-44.5'	10'-10.5'	11.5'	2 at 6'	8' bays	6"	7'-12'	5'-12'
Collectors	1,500-5,000 ADT									
Residential:					As per traffic calming					
No Parking		49'-51'	22'	11'			None	6"	7'-8'	5'-12'
Parking One Side		50'-56'	25'-27'	9'-10'			7' lane	6"	7'-8'	5'-12'
Parking Both Sides		57'-63'	32'-34'	9'-10'			7' lanes	6"	7'-8'	5'-12'
Commercial (Collectors and Local Streets):					As per traffic calming					
Parallel One Side		55'-65'	28'	10'			8' lane	6"	7'-8'	6'-12'
Parallel Both Sides		63'-73'	36'	10'			8' lanes	6"	7'-8'	6'-12'

3.4.100 – Transportation Standards

Street Type	Ave. Daily Trips (ADT)	Right-of-Way Width	Curb-to-Curb Paved Width	Within Curb-to-Curb Area				Curbs	Planting Strips or Tree Wells	Side-walks
				Motor Vehicle Travel Lanes	Median/Center Turn Lane	Bike Lanes	On-Street Parking			
Diagonal Parking One Side		65'-74'	37'	10'			Varies	6"	7'-8'	6'-12'
Diagonal Parking Both Sides		81'-91'	54'	10'			Varies	6"	7'-8'	6'-12'
Local Streets	Less than 1,500 ADT									
Residential:										
Parking One Side*		46'-57'	23'-24'	16'-17' (queuing)			7' lane	6"	4'-12'	4'-6'
Parking Both Sides		44'-64'	28'	14' (queuing)			7' lanes	6"	4'-12'	4'-6'
No Parking		36'-56'	20'	20'			None	6"	4'-12'	4'-6'
Commercial:	See Collector standards for commercial streets.									
[Reserved for Additional Standards, as needed]										
*Streets with parking on one side only should be avoided. When used, they must be posted NO PARKING.										

Figure 3.4.100F(1) Three-Lane Arterial-Boulevard Street Section

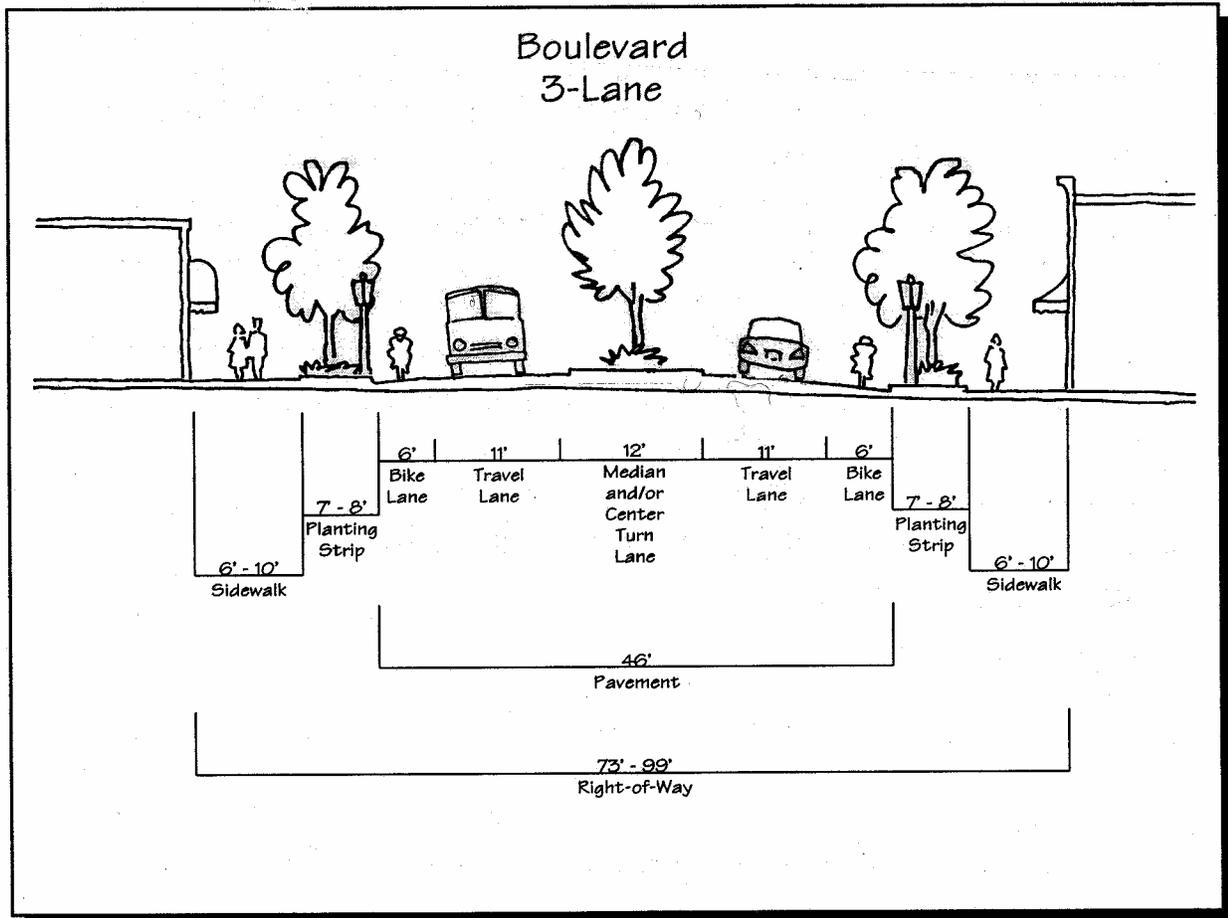


Figure 3.4.100F(2) Residential Collector Street Sections

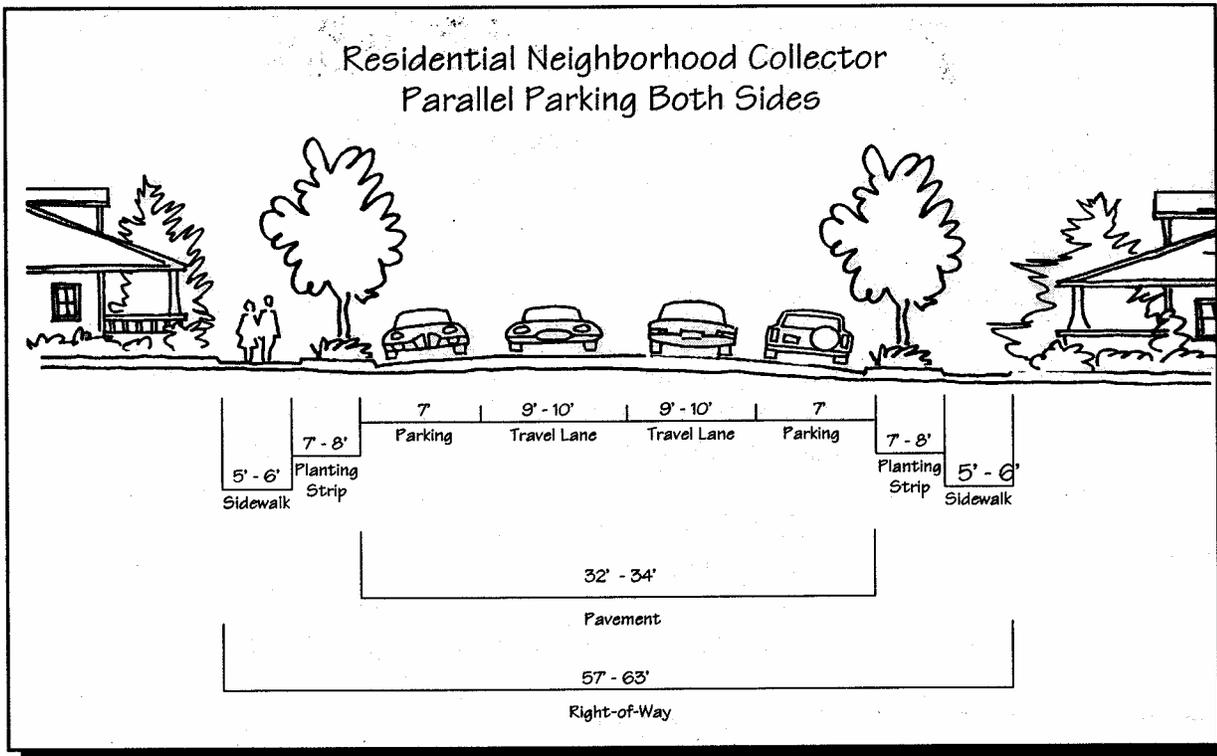
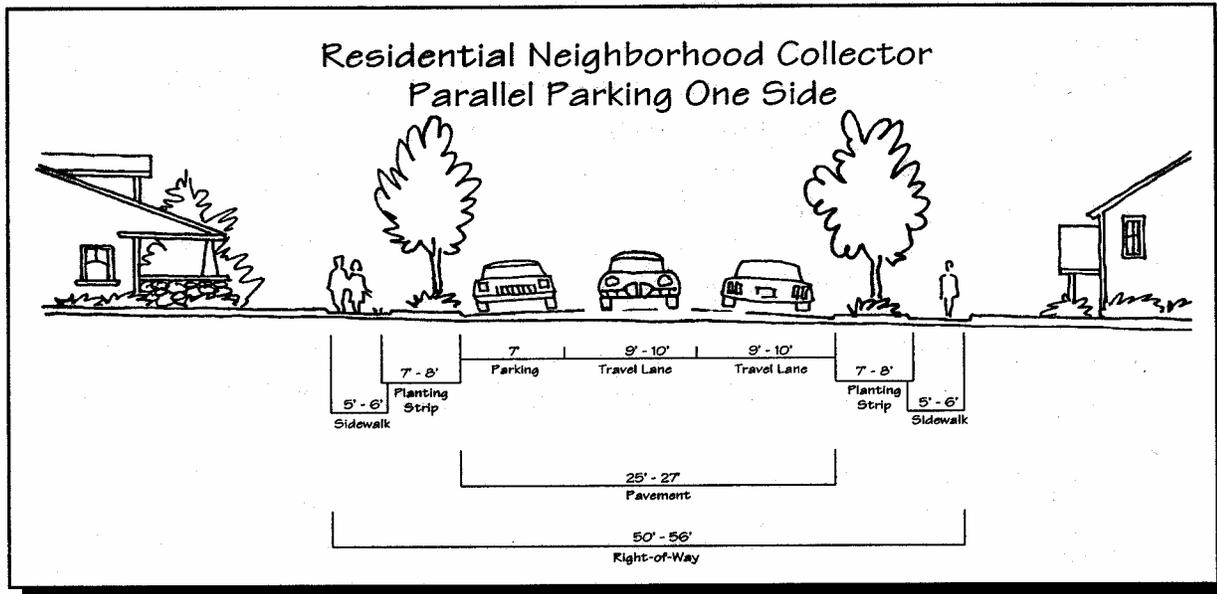


Figure 3.4.100F(3) Commercial/Industrial Collector Street Sections (Parking One Side)

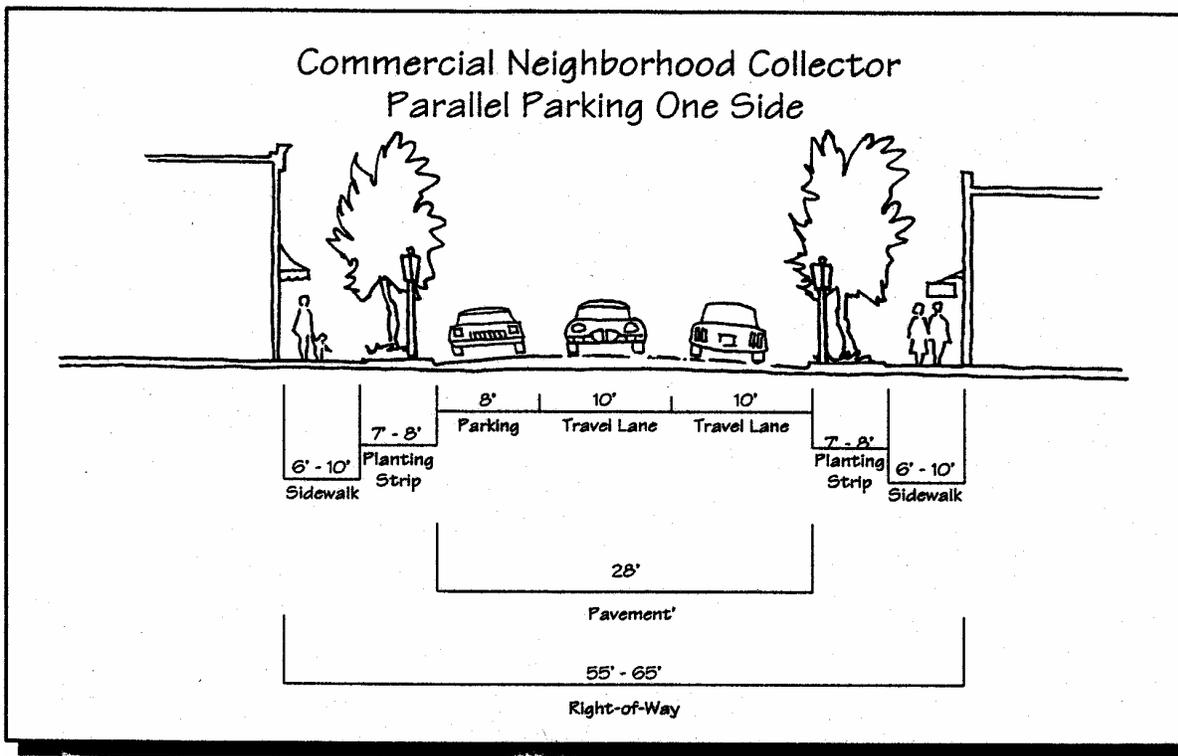
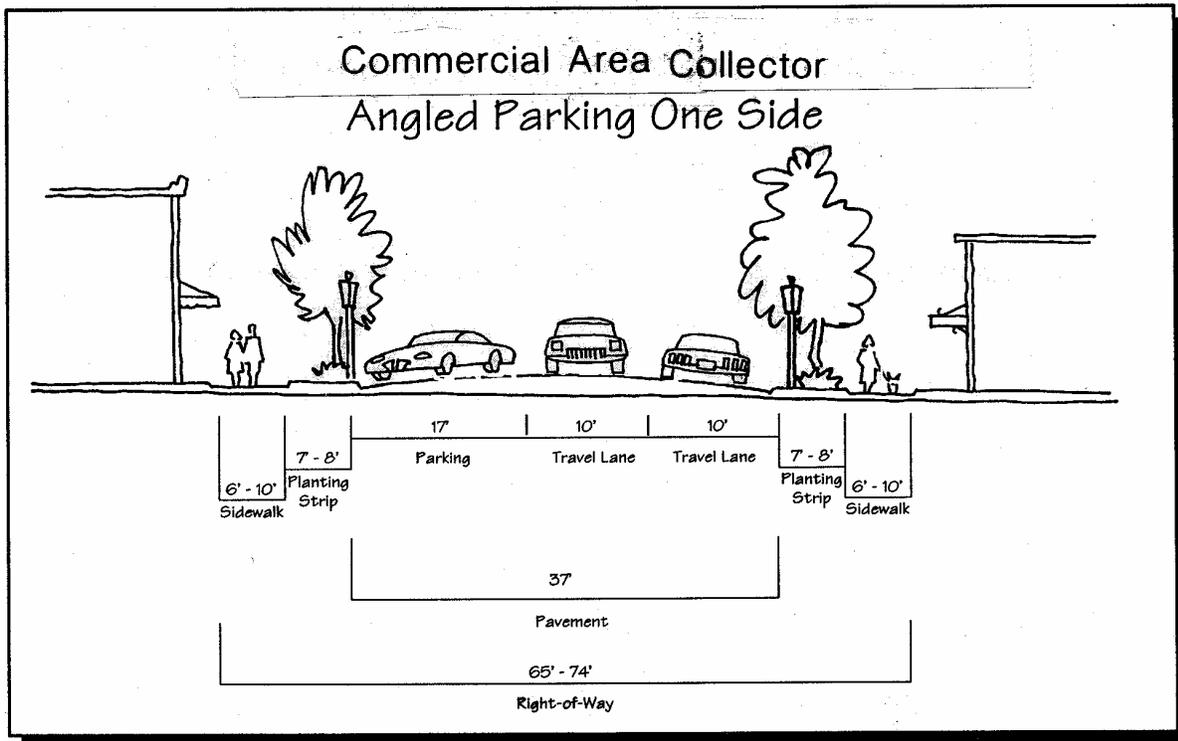


Figure 3.4.100F(4) Commercial/Industrial Collector Street Sections (Parking Two Sides)

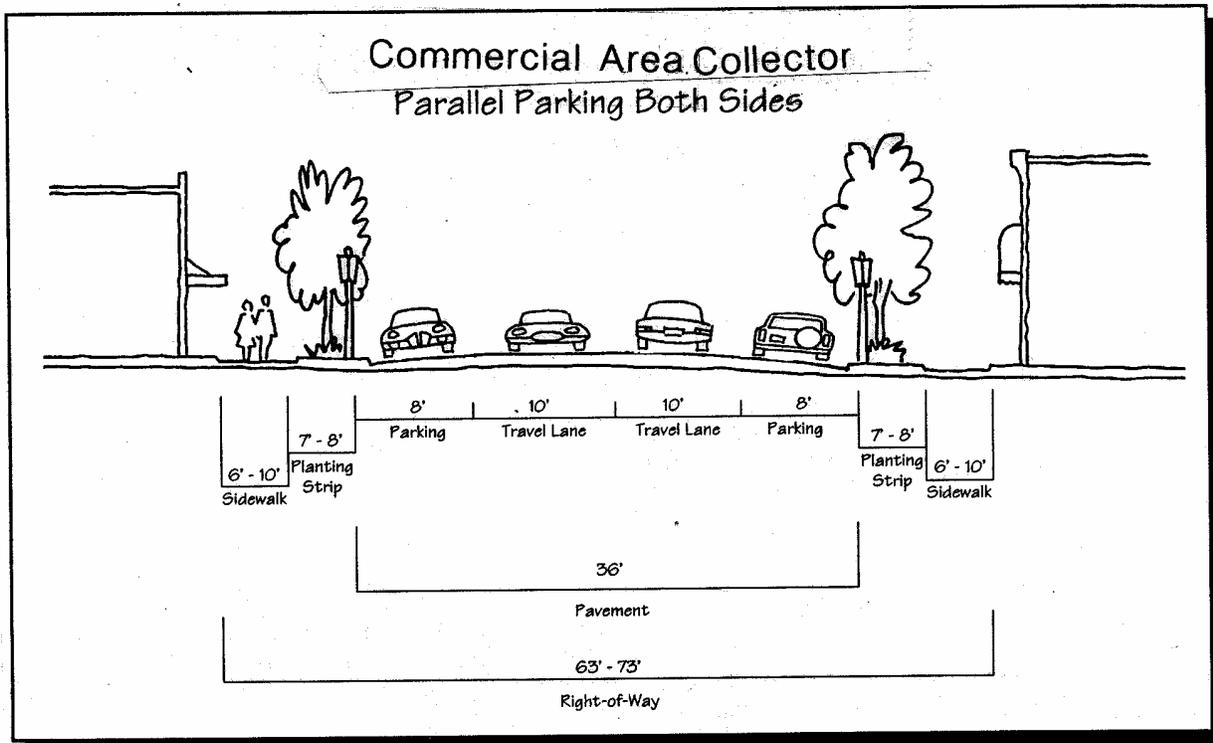
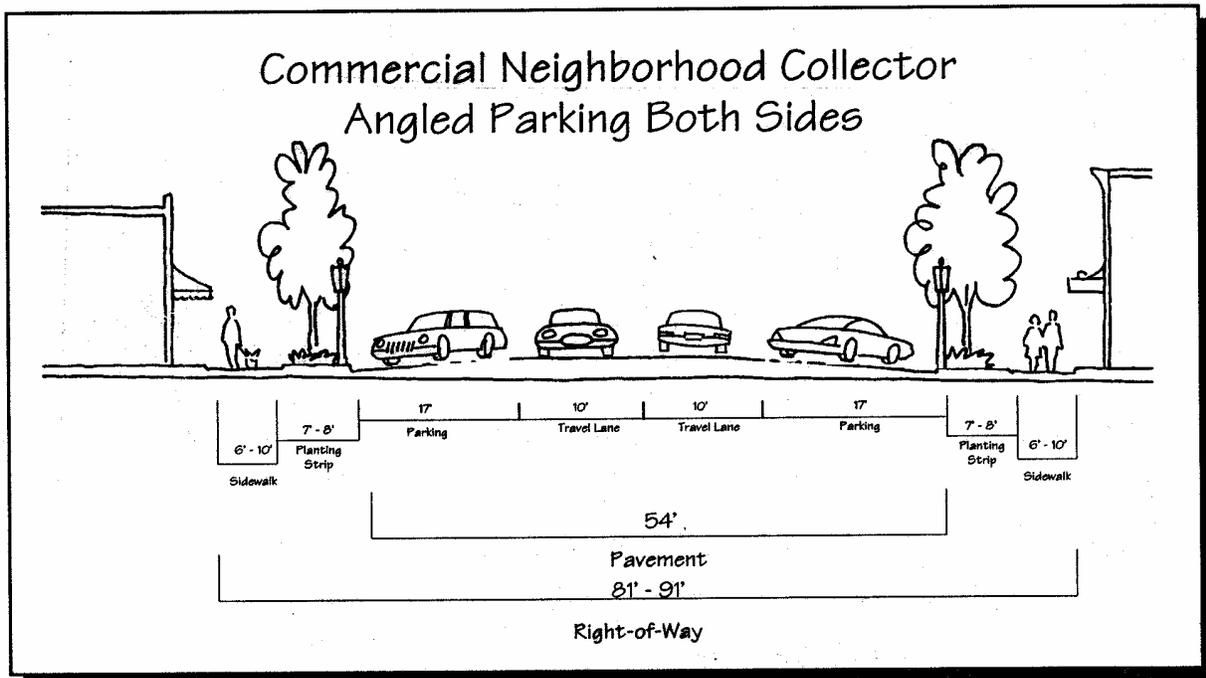
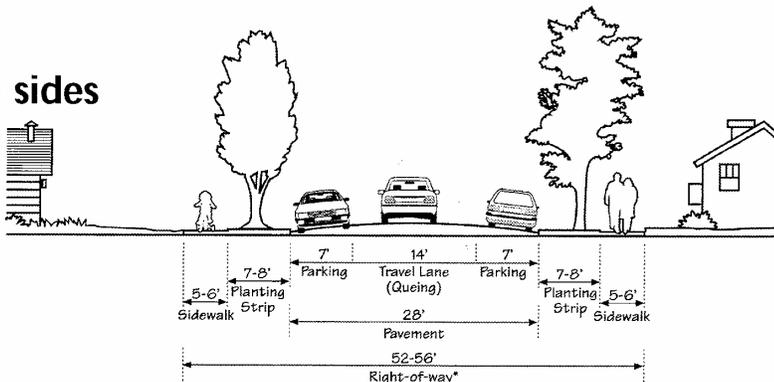
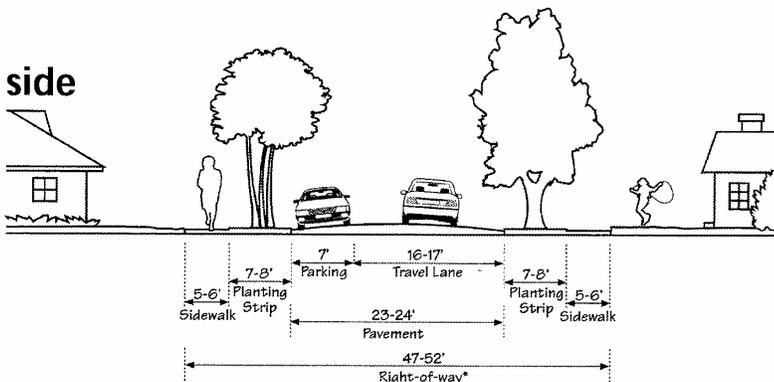


Figure 3.4.100F(5) Local Residential Street Sections

28 Ft Street
Parking on both sides



24 Ft Street
Parking on one side



20 Ft Street
No on-street parking allowed

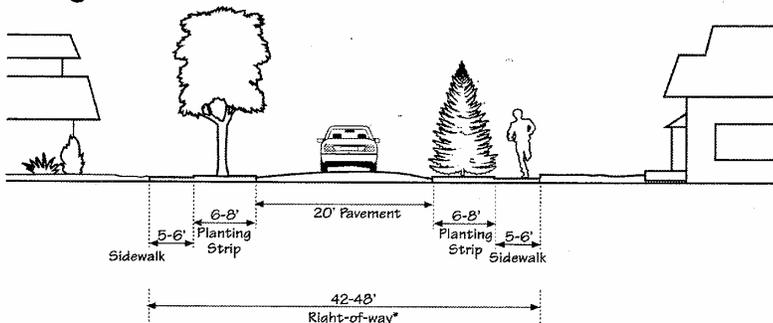
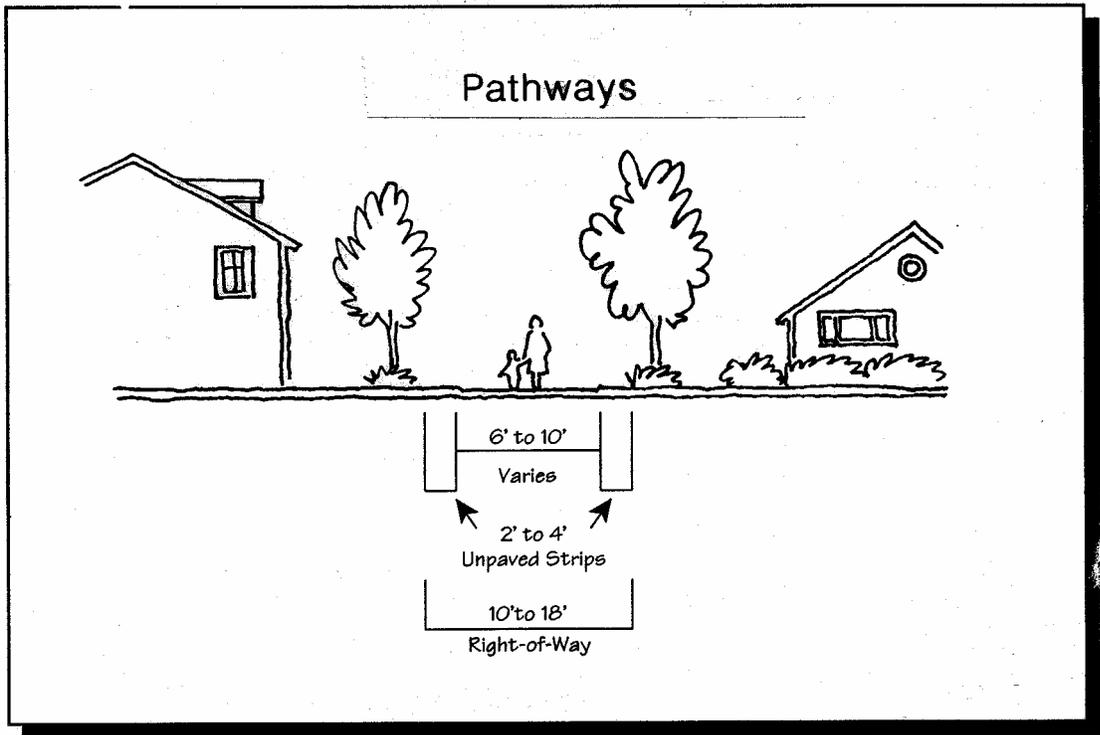
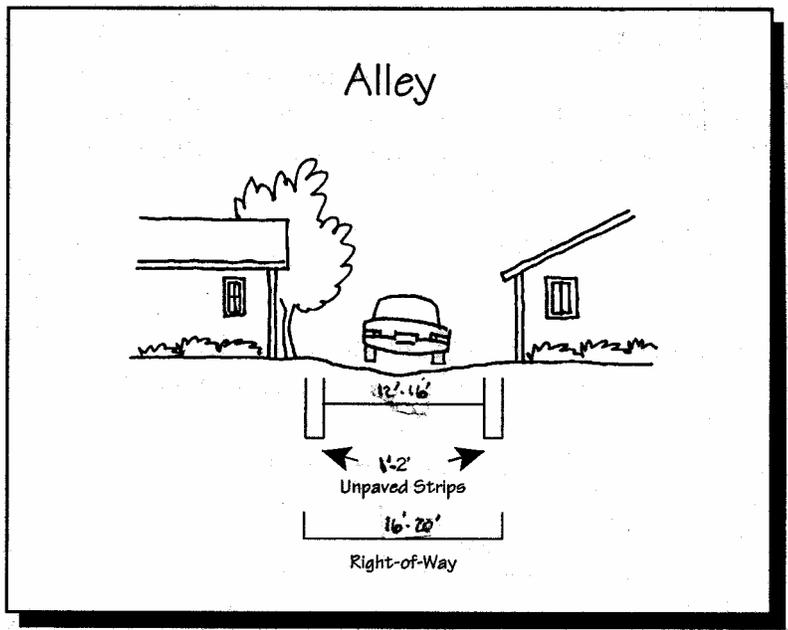


Figure 3.4.100F(2) Alley and Pathway Sections

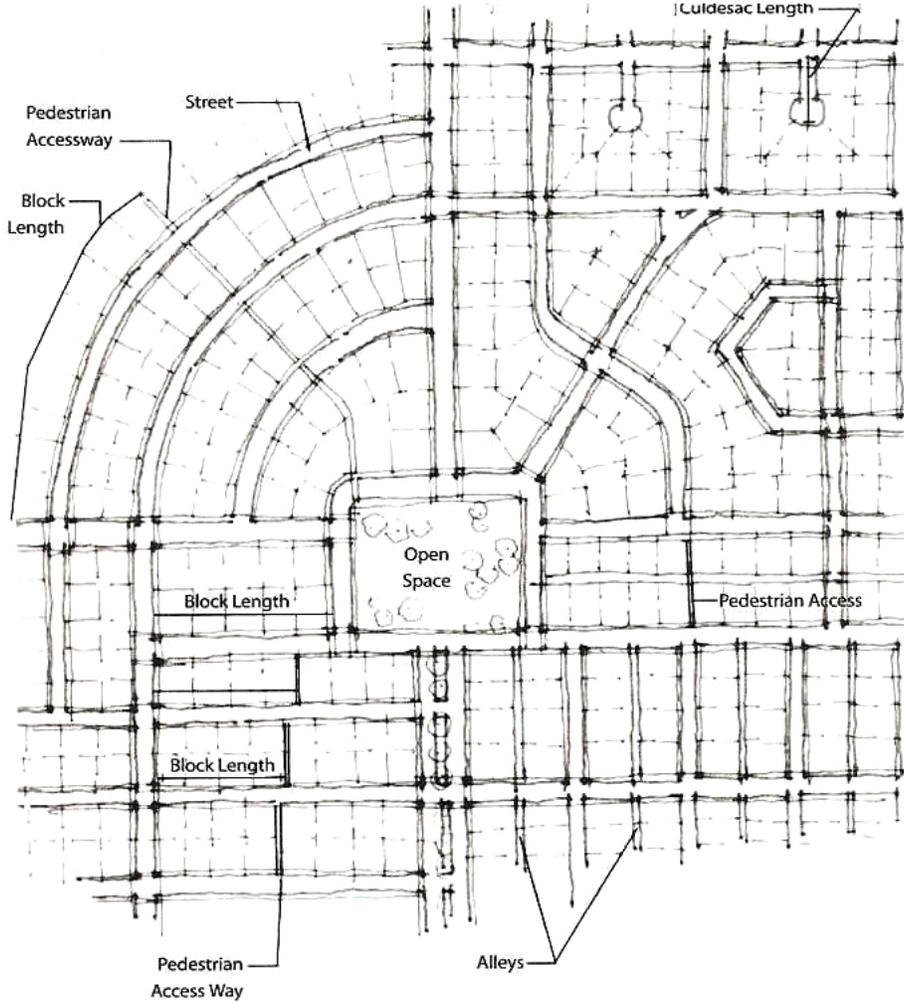


[RESERVED FOR OTHER STREET SECTIONS]

G. Subdivision Street Connectivity. All subdivisions shall conform to all the following access and circulation design standards, as applicable:

1. Connectivity to Abutting Lands. The street system of proposed subdivisions shall be designed to connect with existing, proposed, and planned streets outside of the subdivision as provided in this Section. Wherever a proposed development abuts unplatted land or a future development phase of the same development, street stubs shall be provided to allow access to future abutting subdivisions and to logically extend the street system into the surrounding area. All street stubs shall be provided with a temporary turn-around unless specifically exempted by the *[Fire Marshal]*, and the restoration and extension of the street shall be the responsibility of any future developer of the abutting land.
2. When Abutting an Arterial Street. Property access to abutting arterials shall be minimized. Where such access is necessary, shared driveways may be required in conformance with Section 3.1.2. If vehicle access off a secondary street is possible, then the road authority may prohibit access to the arterial.
3. Continuation of Streets. Planned streets shall connect with surrounding streets to permit the convenient movement of traffic between residential neighborhoods and to facilitate emergency access and evacuation. Connections shall be designed to meet or exceed the standards in subsection 4, below, and to avoid or minimize through traffic on local streets. Appropriate design and traffic control and traffic calming measures, as provided in subsection H, below, are the preferred means of discouraging through traffic.
4. Street Connectivity and Formation of Blocks. In order to promote efficient vehicular and pedestrian circulation throughout the city, subdivisions and site developments of more than two (2) acres shall be served by a connecting network of public streets and/or accessways, in accordance with the following standards (minimum and maximum distances between two streets or a street and its nearest accessway):
 - a. Residential Districts: Minimum of *[100]* foot block length and maximum of *[600]* length; maximum *[1,400]* feet block perimeter;
 - b. *[Downtown / Main Street District]*: Minimum of *[100]* foot length and maximum of *[400]* foot length; maximum *[1,200]* foot perimeter;
 - c. General Commercial Districts: Minimum of *[100]* foot length and maximum of *[600]* foot length; maximum *[1,400]* foot perimeter;
 - d. Not applicable to the Industrial Districts;

Figure 3.4.100G - Street Connectivity and Formation of Blocks



- 5. Accessway Standards. Where a street connection in conformance with the maximum block length standards in subsection 4 is impracticable, an accessway shall be provided at or near the middle of a block in lieu of the street connection, as generally shown in Figure 3.4.100G. The City may also require developers to provide an accessway where a cul-de-sac or other street is planned and the accessway would connect the streets or provide a connection to other developments. Such access ways shall conform to all of the following standards:
 - a. Accessways shall be no less than ten (10) feet wide and located within a right-of-way or easement allowing public access and, as applicable, emergency vehicle access;
 - b. If the streets within the subdivision or neighborhood are lighted, all accessways in the subdivision shall be lighted. Accessway illumination shall provide at least 2-foot candles;
 - c. A right-of-way or public access easement provided in accordance with subsection b that is less than 20 feet wide may be allowed on steep slopes where the decision body finds that stairs, ramps, or switch-back paths are required;
 - d. All accessways shall conform to applicable ADA requirements;

- e. The City may require landscaping as part of the required accessway improvement to buffer pedestrians from adjacent vehicles, provided that landscaping or fencing adjacent to the accessway does not exceed four (4) feet in height; and
- f. which may be modified by the decision body without a variance when the modification affords greater convenience or comfort for, and does not compromise the safety of, pedestrians or bicyclists.

H. Traffic Signals and Traffic Calming Features.

- 1. Traffic signals shall be required with development when traffic signal warrants are met, in conformance with the Highway Capacity Manual and Manual of Uniform Traffic Control Devices. The location of traffic signals shall be noted on approved street plans. Where a proposed street intersection will result in an immediate need for a traffic signal, a signal meeting approved specifications shall be installed in conformance with the road authority's requirements. The developer's cost and the timing of improvements shall be included as a condition of development approval.
- 2. When an intersection meets or is projected to meet traffic signal warrants, the City may accept alternative mitigation, such as a roundabout, in lieu of a traffic signal, if approved by the City Engineer and applicable road authority.
- 3. The City may require the installation of calming features such as traffic circles, curb extensions, reduced street width (parking on one side), medians with pedestrian crossing refuges, and/or special paving to slow traffic in neighborhoods or commercial areas with high pedestrian traffic.

I. Future Street Plan and Extension of Streets.

- 1. A future street plan shall be filed by the applicant in conjunction with an application for a subdivision in order to facilitate orderly development of the street system. The plan shall show the pattern of existing and proposed future streets from the boundaries of the proposed land division and shall include other divisible parcels within [400-600] feet surrounding and adjacent to the proposed land division. The street plan is not binding; rather it is intended to show potential future street extensions with future development
- 2. Streets shall be extended to the boundary lines of the parcel or tract to be developed when the City determines that the extension is necessary to give street access to, or permit a satisfactory future division of, adjoining land. The point where the streets temporarily end shall conform to a-c, below:
 - a. These extended streets or street stubs to adjoining properties are not considered to be cul-de-sacs since they are intended to continue as through streets when the adjoining property is developed.
 - b. A barricade (e.g., fence, bollards, boulders or similar vehicle barrier) shall be constructed at the end of the street by the subdivider and shall not be removed until authorized by the

City or other applicable agency with jurisdiction over the street. The cost of the barricade shall be included in the street construction cost.

- c. Temporary street ends shall provide turnarounds constructed to Uniform Fire Code standards for streets over 150 feet in length. See also, Section 3.1.200.

J. Street Alignment, Radii, and Connections.

1. Staggering of streets making "T" intersections at collectors and arterials shall not be designed so that offsets of less than 300 feet on such streets are created, as measured from the centerline of the street.
2. Spacing between local street intersections shall have a minimum separation of 125 feet, except where more closely spaced intersections are designed to provide an open space, pocket park, common area, or similar neighborhood amenity. This standard applies to four-way and three-way (off-set) intersections.
3. All local and collector streets that stub into a development site shall be extended within the site to provide through circulation unless prevented by environmental or topographical constraints, existing development patterns, or compliance with other standards in this code. This exception applies when it is not possible to redesign or reconfigure the street pattern to provide required extensions. Land is considered topographically constrained if the slope is greater than 15% for a distance of 250 feet or more. In the case of environmental or topographical constraints, the mere presence of a constraint is not sufficient to show that a street connection is not possible. The applicant must show why the environmental or topographic constraint precludes some reasonable street connection.
4. Proposed streets or street extensions shall be located to allow continuity in street alignments and to facilitate future development of vacant or redevelopable lands.
5. In order to promote efficient vehicular and pedestrian circulation throughout the city, the design of subdivisions and alignment of new streets shall conform to block length standards in Section 3.1.200.
6. Corner curb radii shall be at least 20 feet, except where smaller radii are approved by the City Engineer.

K. Sidewalks, Planter Strips, Bicycle Lanes. Sidewalks, planter strips, and bicycle lanes shall be installed in conformance with the standards in Table 3.4.100, applicable provisions of Transportation System Plan, the Comprehensive Plan, and adopted street plans. Maintenance of sidewalks and planter strips in the right-of-way is the continuing obligation of the adjacent property owner.

L. Intersection Angles. Streets shall be laid out so as to intersect at an angle as near to a right angle as practicable, except where topography requires a lesser angle or where a reduced angle is necessary to provide an open space, pocket park, common area or similar neighborhood amenity. In addition, the following standards shall apply:

1. Streets shall have at least 25 feet of tangent adjacent to the right-of-way intersection unless topography requires a lesser distance;
2. Intersections which are not at right angles shall have a minimum corner radius of 20 feet along the right-of-way lines of the acute angle; and
3. Right-of-way lines at intersection with arterial streets shall have a corner radius of not less than 20 feet.

M. Existing Rights-of-Way. Whenever existing rights-of-way adjacent to a proposed development are less than standard width, additional rights-of-way shall be provided at the time of subdivision or development, subject to the provision of Section 3.4.100.

N. Cul-de-sacs. A cul-de-sac street shall only be used when environmental or topographical constraints, existing development patterns, or compliance with other standards in this code preclude street extension and through circulation. When cul-de-sacs are provided, all of the following shall be met:

1. The cul-de-sac shall not exceed a length of [400-800] feet; the length of the cul-de-sac shall be measured along the centerline of the roadway from the near side of the intersecting street to the farthest point of the cul-de-sac;
2. The cul-de-sac shall terminate with a circular or hammer-head turnaround meeting the Uniform Fire Code. Circular turnarounds shall have a radius of no less than [40] feet, and not more than a radius of 45 feet (i.e., from center to edge of pavement); except that turnarounds shall be larger when they contain a landscaped island or parking bay at their center. When an island or parking bay is provided, there shall be a fire apparatus lane of 20 feet in width; and
3. The cul-de-sac shall provide, or not preclude the opportunity to later install, a pedestrian and bicycle accessway connection between it an adjacent streets access ways, parks, or other right-of-way. Such accessways shall conform to Section 3.1.400.

O. Grades and Curves. Grades shall not exceed 10 percent on arterials, 12% on collector streets, or 12% on any other street (except that local or residential access streets may have segments with grades up to 15% for distances of no greater than 250 feet), and:

1. Centerline curve radii shall not be less than 700 feet on arterials, 500 feet on major collectors, 350 feet on minor collectors, or 100 feet on other streets; and
2. Streets intersecting with a minor collector or greater functional classification street, or streets intended to be posted with a stop sign or signalization, shall provide a landing averaging five

percent or less. Landings are that portion of the street within 20 feet of the edge of the intersecting street at full improvement.

- P. Curbs, Curb Cuts, Ramps, and Driveway Approaches.** Concrete curbs, curb cuts, wheelchair ramps, bicycle ramps, and driveway approaches shall be constructed in accordance with standards specified in Chapter 3.1, Access and Circulation.
- Q. Streets Adjacent to Railroad Right-of-Way.** When a transportation improvement is proposed within [300] feet of a public railroad crossing, or a modification is proposed to an existing public crossing, the Oregon Department of Transportation and the rail service provider shall be notified and given an opportunity to comment, in conformance with the provisions of Article 4. Private crossing improvements are subject to review and licensing by the rail service provider.
- R. Development Adjoining Arterial Streets.** Where a development adjoins or is crossed by an existing or proposed arterial street, the development design shall separate residential access from through traffic and minimize traffic conflicts. (See also, the access requirements under Section 3.1.200.) The development design shall include one or more of the following:
1. A parallel access street (frontage road) along the arterial with a landscape median (raised curbs) of not less than [10] feet in width separating the two streets;
 2. Deep lots ([120] feet or greater) abutting the arterial or major collector to provide adequate buffering with frontage along another street;
 3. Screen planting within a non-access reservation (e.g., public easement or tract) of not less than [5-10] feet in width at the rear or side property line along the arterial; or
 4. Other treatment approved by the City that is consistent with the purpose of this Section;
- S. Alleys, Public or Private.** Alleys shall conform to the standards in Table 3.4.100. Alley intersections and sharp changes in alignment shall be avoided. The corners of necessary alley intersections shall have a radius of not less than 12 feet.
- T. Private Streets.** *[Private streets shall conform to City standards of construction and shall provide sidewalks or pathways as approved by the City. Private streets shall not be used to avoid public access connectivity required by this Chapter.]* Gated communities (i.e., where a gate limits access to a development from a public street) are prohibited; and
- U. Street Names.** No new street name shall be used which will duplicate or be confused with the names of existing streets in [name of]County. Street names, signs, and numbers shall conform to the established pattern in the surrounding area, except as requested by emergency service providers.
- V. Survey Monuments.** Upon completion of a street improvement and prior to acceptance by the City, it shall be the responsibility of the developer's registered professional land surveyor to provide certification to the City that all boundary and interior monuments shall be reestablished

and protected.

W. Street Signs. The city, county, or state with jurisdiction shall install all signs for traffic control and street names. The cost of signs required for new development shall be the responsibility of the developer. Street name signs shall be installed at all street intersections. Stop signs and other signs may be required.

X. Mail Boxes. Plans for mail boxes shall be approved by the United States Postal Service.

Y. Street Light Standards. Street lights shall be installed in accordance with City standards.

[Z. Street Cross-Sections. The final lift of asphalt or concrete pavement shall be placed on all new constructed public roadways prior to final City acceptance of the roadway unless otherwise approved by the City Engineer. The final lift shall also be placed no later than when ___% of the structures in the new development are completed or ___ years from the commencement of initial construction of the development, whichever is less.]

3.4.200 Public Use Areas

Background: Section 3.4.200 provides minimal discretionary standards for park/school site dedications and improvements for large subdivisions. If your city has mostly smaller development projects, it may be necessary to purchase land for future parks or schools in advance, ahead of growth. The benefit of this approach is that land prices are lower than if you wait and try to require dedications at the time of development.

A. Dedication of Public Use Areas.

1. Where a proposed park, playground, or other public use shown in a plan adopted by the City is located in whole or in part in a subdivision, the City may require the dedication or reservation of this area on the final plat for the subdivision, provided that the impact of the development on the City park system is roughly proportionate to the dedication or reservation being made.
2. The City may purchase or accept voluntary dedication or reservation of areas within the subdivision that are suitable for the development of parks and other public uses; however, the City is under no obligation to accept such areas offered for dedication or sale.

B. System Development Charge Credit. Dedication of land to the City for public use areas, voluntary or otherwise, shall be eligible as a credit toward any required system development charge for parks.

3.4.300 Sanitary Sewer and Water Service Improvements.

- A. Sewers and Water Mains Required.** Sanitary sewers and water mains shall be installed to serve each new development and to connect developments to existing mains in accordance with the City's Sanitary Sewer Master Plan, Water System Master Plan, and the applicable construction specifications. When streets are required to be stubbed to the edge of the subdivision, sewer and water system improvements shall also be stubbed with the streets, except as may be waived by the City Engineer.
- B. Sewer and Water Plan Approval.** Development permits for sewer and water improvements shall not be issued until the City Engineer has approved all sanitary sewer and water plans in conformance with City standards.
- C. Over-Sizing.** The City may require as a condition of development approval that sewer, water, and/or storm drainage systems serving new development be sized to accommodate future development within the area as projected by the applicable Water, Sewer, and/or Storm Drainage Master Plan, provided that the city may grant the developer credit toward any required system development charge for the same.
- D. Inadequate Facilities.** Development permits may be restricted by the City where a deficiency exists in the existing water or sewer system that cannot be rectified by the development and which if not rectified will result in a threat to public health or safety, surcharging of existing mains, or violations of state or federal standards pertaining to operation of domestic water and sewerage treatment systems.

3.4.400 Storm Drainage Improvements

- A. General Provisions.** The City shall issue a development permit only where adequate provisions for storm water and flood water runoff have been made in conformance *[with the City's Storm Drainage Master Plan/Chapter 3.5, Surface Water Management]*.
- B. Accommodation of Upstream Drainage.** Culverts and other drainage facilities shall be large enough to accommodate existing and potential future runoff from the entire upstream drainage area, whether inside or outside the development. Such facilities shall be subject to review and approval by the City Engineer.
- C. Effect on Downstream Drainage.** Where it is anticipated by the City Engineer that the additional runoff resulting from the development will overload an existing drainage facility, the City shall withhold approval of the development until provisions have been made for improvement of the potential condition or until provisions have been made for storage of additional runoff caused by the development in accordance with City standards.
- D. Over-Sizing.** The City may require as a condition of development approval that sewer, water, and/or storm drainage systems serving new development be sized to accommodate future development within the area as projected by the applicable Water, Sewer, and/or Storm Drainage Master Plan, provided that the city may grant the developer credit toward any required system development charge for the same.
- [E. Existing Watercourse. Where a proposed development is traversed by a watercourse, drainage way, channel, or stream, there shall be provided a storm water easement or drainage right-of-way conforming substantially with the lines of such watercourse and such further width as will be adequate for conveyance and maintenance to protect the public health and safety.]*

3.4.500 Utilities

A. Underground Utilities.

1. Generally. All new utility lines including, but not limited to, those required for electric, communication, lighting, and cable television services and related facilities shall be placed underground, except for surface mounted transformers, surface mounted connection boxes and meter cabinets which may be placed above ground, temporary utility service facilities during construction, and high capacity electric lines operating at 50,000 volts or above.
2. Subdivisions. The following additional standards apply to all new subdivisions, in order to facilitate underground placement of utilities:
 - a. The developer shall make all necessary arrangements with the serving utility to provide the underground services. Care shall be taken to ensure that all above ground equipment does not obstruct vision clearance areas for vehicular traffic (Chapter 3.1);
 - b. The City reserves the right to approve the location of all surface-mounted facilities;
 - c. All underground utilities, including sanitary sewers and storm drains installed in streets by the developer, shall be constructed prior to the surfacing of the streets; and
 - d. Stubs for service connections shall be long enough to avoid disturbing the street improvements when service connections are made.

B. Exception to Undergrounding Requirement. The standard applies only to proposed subdivisions. An exception to the undergrounding requirement may be granted due to physical constraints, such as steep topography, sensitive lands (Chapter 3.7), or existing development conditions.

3.4.600 Easements.

- A. Provision.** The developer or applicant shall make arrangements with the City, the applicable district, and each utility franchise for the provision and dedication of utility easements necessary to provide full services to the development. The City's standard width for public main line utility easements shall be determined by the City Engineer.
- B. Recordation.** As determined by the City Engineer, all easements for sewers, storm drainage and water quality facilities, water mains, electric lines, or other public utilities shall be recorded with the final plat. See Chapter 4.2, Site Design Review, and Chapter 4.3, Land Divisions.

3.4.700 Construction Plan Approval and Assurances

- A. Plan Approval and Permit.** No public improvements, including sanitary sewers, storm sewers, streets, sidewalks, curbs, lighting, parks, or other requirements shall be undertaken except after the plans have been approved by the City, permit fee paid, and permit issued. The permit fee is required to defray the cost and expenses incurred by the City for construction and other services in connection with the improvement. The permit fee shall be set by City Council.
- B. Performance Guarantee.** The City may require the developer or subdivider to provide bonding or other performance guarantees to ensure completion of required public improvements. See Section 4.2.4, Site Design Review, and Section 4.3.180, Land Divisions.

3.4.800 Installation

- A. Conformance Required.** Improvements installed by the developer either as a requirement of these regulations or at his/her own option, shall conform to the requirements of this Chapter, approved construction plans, and to improvement standards and specifications adopted by the City.
- B. Adopted Installation Standards.** The *[Standard Specifications for Public Works Construction, Oregon Chapter A.P.W.A.]*, shall be a part of the City's adopted installation standard(s); other standards may also be required upon recommendation of the City Engineer.
- C. Commencement.** Work shall not begin until the City has been notified in advance in writing.
- D. Resumption.** If work is discontinued for more than one month, it shall not be resumed until the City is notified in writing.
- E. City Inspection.** Improvements shall be constructed under the inspection and to the satisfaction of the City. The City may require minor changes in typical sections and details if unusual conditions arising during construction warrant such changes in the public interest. Modifications to the approved design requested by the developer may be subject to review under Chapter 4.6, Modifications to Approved Plans and Conditions of Approval. Any monuments that are disturbed before all improvements are completed by the subdivider shall be replaced prior to final acceptance of the improvements.
- F. Engineer's Certification and As-Built Plans.** A registered *[civil]* engineer shall provide written certification in a form required by the City that all improvements, workmanship, and materials are in accord with current and standard engineering and construction practices, conform to approved plans and conditions of approval, and are of high grade, prior to City acceptance of the public improvements, or any portion thereof, for operation and maintenance. The developer's engineer shall also provide *[2]* set(s) of "as-built" plans, in conformance with the City Engineer's specifications, for permanent filing with the City.

Chapter 3.5 — Surface Water Management

Reference: Chapter 3.5 is reserved for water quantity *and* water quality standards, as may be needed to address National Pollution Discharge Elimination System (NPDES) permit requirements in your city. See the Department of Land Conservation and Development's *Water Quality Standards Model Code Handbook*, and consult with your Department of Environmental Quality regional representative.

[Reserved for Surface Water Management standards as may be adopted by City.]

Chapter 3.6 — Other Standards

Sections:

3.6.100 Telecommunication Facilities

[3.6.200 Reserved]

3.6.100 Telecommunication Facilities

Background: Section 3.6.100 is reserved for standards which would be applied to cell towers, antennae exceeding height limitations of the underlying zone, and other telecommunication facilities. Cell tower regulations typically require co-location of towers, where practicable, or the use of context-sensitive designs such as building-mounted facilities and camouflaging.

Statutes and Regulations: Local regulation of telecommunication facilities must conform to the Federal Telecommunications Act of 1996 For more information go to www.fcc.gov/telecom.html.

[Reserved for standards for telecommunication facilities, as may be adopted in conformance with the Federal Telecommunication Act (1996).]

[3.6.300 Reserved]

Chapter 3.7 — Sensitive Lands

Background: Chapter 3.7 is a placeholder for design standards related to areas of environmental concern that are not otherwise contained in Chapter 2.5 - Overlay Zones). See Chapter 2.5.

[Reserved]

Chapter 3.8 - Signs

Sections:

[Reserved]

Background: Chapter 3.8 is a placeholder for sign regulations. Sign ordinances can be as extensive as an entire zoning ordinance for a small city, or only a few pages in length. Typically they designate allowed and prohibited sign types and placement (e.g., wall-mounted, hanging, monument, pole sign, directory, portable, moving, ribbons and flags, etc.); dimensional standards (height, area, setbacks, clearances, etc.); and appearance (e.g., lighting, colors, typeface, flashing, video, streaming copy, etc.). There are many good examples of sign ordinances available and cities are encouraged to inventory the signs in their community before settling on a model.

Statutes and Regulations: Constitutional case law on signs is extensive. Ordinances should avoid regulating, or differentiating by, sign *content* (e.g., political, commercial, x-rated, etc.), and cities should consult their legal counsel prior to adopting regulations provisions that create non-conforming signs.

References: The American Planning Association (www.planning.org) offers several guides and model ordinances related to signs. In addition, cities may also want to contact trade associations such as the International Sign Association (www.sign.org) and Oregon Electric Sign Association (www.oesa.net). These references are provided for general information only; they are not intended ensure legal sufficiency.