

CHAPTER 3 – PUBLIC INFRASTRUCTURE

Section 4-301 Purpose and Applicability.

- A. **Purpose.** The purpose of Chapter 3 is to ensure the timely provision of adequate infrastructure, and promote orderly and efficient growth consistent with the Tempe General Plan.
- B. **Applicability.** This Code provides general requirements for transportation, sanitary sewer, water, and storm drainage system improvements located within public right-of-way, easements, and on land owned by the city. Conformance with the City of Tempe Public Works Department Standard Details and Engineering Design Criteria Manual and related standards is also required.

Section 4-302 General Requirements for Public Improvements.

- A. **Conformance with Public Facility Standards.** *Development plans*, when required to establish a use or *development*, shall conform to the general standards contained in this section, prior to the city granting land use or *development* approval. Public improvement design and construction, including sanitary sewer, water, storm drainage facilities, transportation facilities including pedestrian and bicycle pathways, *street* lights, public parks, or other improvements shall not be undertaken except after the appropriate plans have been approved by the city, permit fees paid, and permit issued. The design criteria and standards are described in the City of Tempe Public Works Department Standard Details and Engineering Design Criteria Manual. Construction standards are the Maricopa Association of Governments (MAG) standards with City of Tempe supplements.
- B. **Impact Analysis.** The city or other agency with jurisdiction may require an impact analysis prepared by a qualified engineer to determine sanitary sewer system, water system, storm drainage system, traffic, access, circulation and other public facility mitigation requirements.
- C. **Conditions of Approval.** The city may conditionally approve a land use or *development* application to ensure that the proposed *development* complies with applicable standards. Public facility improvements required as a condition of approval (i.e., when not otherwise proposed by the applicant), shall be roughly proportional to the impact of *development* and follow the Public Improvements (Exactions) Policy contained in the City of Tempe Engineering Design Criteria Manual.
- D. **Construction Plan Review and Permitting.** Public facility improvements (i.e., improvements to be dedicated to the City of Tempe) shall require a construction permit subject to review and approval by the City Engineer prior to commencing work, pursuant to Section 4-102(C).

Section 4-303 Transportation Improvements.

- A. Purpose.** The purpose of this section is to ensure that all *development* projects provide for a safe, attractive and functional transportation system that is *accessible* and accommodates all modes of transportation (automobiles, pedestrian, bicycling, and transit) in conformance with the Comprehensive Transportation Plan.
- B. Street Access.** All *developments* shall have approved access to a *public street*, in conformance with the provisions of Part 4, Chapter 5, Access and Circulation.
- C. Street Layout and Design.** The layout and design of *streets* and *alleys* shall conform to the Comprehensive Transportation Plan, the design standards and cross-sections contained in the City of Tempe Public Works Standard Details and the City of Tempe Transportation Design Guidelines.
- D. Dedications.** Required dedications shall conform to the following *half-street* dimensions:
1. *Public Streets.*
 - a. Arterial *streets* – fifty-five (55) feet;
 - b. Mid-section line, industrial and commercial collectors – thirty-three (33) feet;
 - c. Residential collectors and local multi-family, commercial and industrial *streets* – thirty (30) feet; and/or
 - d. Local residential *streets* – twenty-five (25) feet.
 2. *Private Streets.* Minimum twelve and one half (12 ½) feet.
- E. Connectivity.** To promote efficient circulation, *accessibility*, and neighborhood traffic calming, the design of new *streets* and *street* connections shall conform to the following maximum *block* length standards:
1. Commercial and Mixed-Use Districts: Six hundred (600) feet.
 2. Residential Districts: One thousand two hundred (1,200) feet.
 3. Office/Industrial Districts: One thousand two hundred (1,200) feet.

The maximum *block* length may be increased by the Development Services Manager, or designee, if the site conditions, or, the proposed *development* and use of the site make a shorter *block* length impracticable, and that other provisions are made for pedestrian and bicycle circulation. Appropriate provisions shall include, but are not limited to a safe, direct, and ADA *accessible* pedestrian access way being provided through the site, in conformance with the standards in Part 4, Chapter 5, Access and Circulation.

- F. Neighborhood Accessibility and Traffic Calming.** Proposed *streets*, *street* extensions, driveways, and pedestrian access ways shall be designed and located to slow traffic on local *streets* between residential neighborhoods and existing or planned commercial *services* and amenities, such as *schools*, shopping areas, parks, and transit facilities. Traffic calming features may also be required for the circulation systems and *street* access points of larger *developments*. Traffic calming measures, such as curb extensions, traffic circles, roundabouts, and special paving at *intersections*, shall conform to the City of Tempe Public Works Standard Details, Pedestrian and Bicycle Facility Design Guidelines, and emergency *service* provider requirements. *Streets*, driveways and pedestrian access ways shall also conform to the Americans with Disabilities Act (ADA).
- G. Transit Facilities.**
1. Bus pull-outs, shelter pads, shelters, and related right-of-way and easements may be required when a *development* is adjacent to an existing or planned bus stop or transit station. These facilities shall be integrated into the overall pedestrian plan of a project, and designed consistent with the City of Tempe Public Works Standard Details and Pedestrian and Bicycle Facility Design Guidelines.
 2. Pedestrian pathways shall be designed to provide a direct connection between the main *building* entrance and public sidewalks and transit stops. *Landscape plans* shall be designed to provide shading of the pedestrian pathways and transit stops, where applicable.
 3. Bus stop locations shall be subject to review and approval by the Public Works Manager.
 4. Furniture installed at bus stops shall be located to provide an *accessible* route between components and any switch boxes, mailboxes, utility boxes and similar features.
 5. All bus stops shall meet or exceed current ADA requirements for transit.
 6. Bus pullout areas shall be subject to review and approval by the Public Works Manager.
- H. Street Lights.** *Street* lights shall be installed concurrent with other city infrastructure requirements prior to occupancy, and conform to the City of Tempe Public Works Standard Details and the Engineering Design Criteria Manual contained in the Comprehensive Transportation Plan. *Street* lights in areas with *overlay districts* or redevelopment plans shall conform to any applicable guidelines (e.g., pedestrian lighting). *Street* light standards for *private streets* shall be determined through the Development Plan Review.

- I. **Street Stubs.** *Streets* shall be extended to the boundary lines of the parcel or tract to be *developed* when the decision-making body determines that the extension is necessary to give *street* access to future *development* on an adjoining parcel. These *street* stubs are not considered to be cul-de-sacs. The city may require the developer to provide a temporary barricade, and/or turnaround for *street* stubs over one hundred fifty (150) feet in length.
- J. **Grades and Curves.** *Street grades* and curves shall conform to the City of Tempe Public Works Standard Details.
- K. **ADA Accessibility.** Standards for the design of curbs, curb cuts, driveway approaches, ramps, gutters, sidewalks, and paving shall provide ADA *accessibility* and conform to the City of Tempe Public Works Standard Details, Engineering Design Criteria Manual and Transportation Design Guidelines.
- L. **Private Streets.** Plat approval is required to *develop private streets*. Access control gates shall conform to police, transportation, fire, and refuse access standards and provide emergency access override switches acceptable to the Fire Marshal. *Private streets* are required to meet the same construction standards as *public streets*, and lighting levels shall conform to city standards. The developer must provide a warranty on private roads deliverable to the City of Tempe Engineering Division.
- M. **Street Names.** No *street* name shall be used which duplicates or could be confused with an existing *street* name in the City of Tempe or adjacent city. *Street* names, *signs*, and address numbers shall conform to the established pattern in the surrounding area, and be subject to review and approval by the City of Tempe Engineering Division.

Section 4-304 Sanitary Sewer, Storm Drainage, and Water System Improvements.

- A. **Adequate Public Facilities.** Adequate sanitary sewer, storm drainage, and water system facilities, including required fire flow, shall be provided by the developer concurrent with *development* and redevelopment projects, in conformance with the City of Tempe Water Facility Master Plan, Storm Drainage Master Plan, and Sanitary Sewer Master Plan.
- B. **Design.** The design of sanitary sewer, storm drainage, and water system facilities shall conform to the City of Tempe Public Works Department Standard Details and Engineering Design Criteria Manual and shall be subject to review and approval by the City Engineer prior to construction. An approved grading and drainage plan by the Engineering Division is required prior to *development* approval. Storm water retention facilities shall additionally conform to the *landscape* standards in Section 4-702, General Landscape Standards.
- C. **Underground Facilities.** All sanitary sewer and water system facilities shall be located underground within exclusive easements, with the exception of some valves, mechanical and electrical devices and similar devices, which must be located above ground. Storm water retention facilities are permitted on the surface of the land.

- D. **Storm Water Retention Required.** Storm water retention is an integral component of the city's storm water management program and compliance with Arizona Pollutant Discharge Elimination System (AZPDES) requirements. Due to limitations of discharge outlets, on-site retention is a high priority element for a successful program to minimize flooding and related property damage. *Development* is required to provide retention of the one hundred (100) year, one (1) hour storm on property outside of public rights-of-way. See also, City of Tempe Public Works Department Standard Details and Engineering Design Criteria Manual.

Section 4-305 Private Utilities Coordination.

When a *development*, addition or change in use requires new or expanded utility *services* (e.g., telephone, natural gas, cable television, internet, electricity, etc.), the developer/builder is required to contact the appropriate utility companies and coordinate underground installation of the utilities. The city will not participate in the cost of constructing or relocating utilities for private *development*. The developer/builder is also responsible for contacting Arizona Department of Water Resources for projects involving wells or ground water withdrawal. The city may require the relocation of existing utilities that are above ground to be underground.