Sidewalk Design Standards

Effective: August 23, 2006

Table of Contents

A. Relationship to the Comprehensive Plan

These Design Standards, along with the Sidewalk Ordinance, implements the following recommendations of the 2004 Comprehensive Plan.

A.1. **Land Use Objective:** Promote development that is characterized by a mix of mutually supportive and integrated residential and non-residential land uses, and a network of interconnected streets with good pedestrian and bicycle access and connections to the transit system.

A.2. **Community Facilities and Services Element Objective:** Accommodate alternative means of transportation such as public transit, bicycling, and walking.

A.3. **Community Facilities and Services Element Strategy 10:** Develop and improve new pedestrian facilities throughout the city. Provide recommended school walking routes, access to buses, access for people with disabilities, and access to and within Activity Centers and neighborhood environments.

A.4. **Community Appearance Objective:** Develop a safe pedestrian and bicycle environment that connects residential with commercial and employment areas and community facilities.

A.5. **Community Appearance Strategy 24:** Revise development regulations to require sidewalks between buildings and through parking lots in Activity Centers to provide more convenience for pedestrians. Also require direct pedestrian walkways when development is adjacent to local bus stops. Wherever walkways cross internal drives and curb cuts, provide a highly-visible, handicapped accessible crosswalk.

A.6. **Community Appearance Strategy 25:** Prioritize and develop pedestrian walkways, sidewalks, crosswalks, handicap accessible ramps and curb cuts along City streets in areas with significant pedestrian traffic, such as around schools, parks, retail districts, and other activity areas.

A.7. **Neighborhood Element Strategy 24:** Update development regulations to improve street, bicycle and pedestrian connectivity between new and developing Super Neighborhood areas and their attendant commercial centers, public spaces, and parks.

B. Policy Guidance

B.1. If the provisions of any part of this plan are inconsistent with the provisions of any other applicable law, policy or regulation, the provision(s) establishing the higher standard shall be enforced.

B.2. Sidewalks, shared use paths, street crossings, pedestrian signals, signs, street furniture, transit stops and facilities, and all connecting pathways should be designed, constructed, operated and maintained so that all pedestrians, including people with disabilities, can travel safely and independently.

B.3. Where pedestrians are prohibited by law from using the roadway, an effort should be made to accommodate pedestrians elsewhere within the same transportation corridor.

B.4. The design and development of the transportation infrastructure should improve conditions for pedestrians through the following additional steps:

a. Planning projects for the long-term: Transportation facilities are long-term investments that remain in place for many years. The design and construction of new transportation facilities should anticipate likely future demand for pedestrian facilities, even where not currently required, and not preclude the provision of future improvements. For example, a street that currently does not require sidewalks due to type or intensity of adjacent land uses should be designed with right-of-way, utility locations, and landscaping that will allow retrofit of sidewalks should land uses or transportation corridor designations change.

b. Addressing the need for pedestrians to cross corridors as well as travel along them: Even where pedestrians may not commonly use a particular travel corridor that is being improved or constructed, they will likely need to be able to cross that corridor safely and conveniently. Therefore, the design of intersections and interchanges shall accommodate pedestrians in a manner that is safe, accessible and convenient.

B.5. Where these Standards are silent, the design of pedestrian facilities should follow the best current standards, such as those listed below, upon approval of the Planning Director.

(1) *Building a True Community: Final Report*, Public Rights-of-way Access Advisory Committee (PROWAC), United States Architectural and Transportation Barriers Compliance Board (ATBCB)

(2) *Designing Sidewalks and Trails for Access,* United States Department of Transportation, Federal Highway Administration, and

(3) *Design and Safety of Pedestrian Facilities,* Institute of Transportation Engineers (ITE).

(4) *Guide for Planning, Design, and Operation of Pedestrian Facilities,* American Association of State Highway and Transportation Officials (AASHTO).

B.6. Examples of situations that may merit deviations from these standards, especially when retrofitting sidewalks along existing streets, are: insufficient right-of-way width, obstacles that are infeasible to remove or relocate, and existing trees worthy of preservation.

B.7. Where it is not possible, or not desirable, to locate a public sidewalk within the public right-of-way, the City may authorize the location of a sidewalk within a public access easement.

C. Standards for Public Sidewalks

All new sidewalks in the public right-of-way must meet the following minimum standards:

C.1. All sidewalks must comply with the City's Standard Specification for Construction and Standard Details.

C.2. All sidewalks must comply with applicable standards established for the removal of architectural barriers to mobility effective at time of construction.

C.3. Sidewalks must have a minimum clear path width of five feet, except four feet width is permitted on local streets in a district zoned for primarily single-family residential purposes. Additional width may be required based on width of adjoining sidewalk, anticipated pedestrian use, character of the area, and neighborhood plans.

C.4. All sidewalk surfaces must be firm, stable, smooth, and slip resistant when dry and must be free of surface gaps greater than 0.5 inch in width.

C.5. The clear path of all sidewalks must be kept free from fixed or portable obstacles (including, but not limited to, signs, street lights, mailboxes, landscaping, utility poles, refuse containers, parked vehicles, merchandise, furniture, and debris) and shall also be kept free from any overhanging projections (including, but not limited to, vegetation, signs, awnings and parked vehicle bumpers) to a height of 8 feet above the sidewalk surface.

C.6. The clear path requirements for sidewalks shall also apply to projections of sidewalks across driveways and crosswalks.

C.7. A shy distance shall be maintained between the required clear path of a sidewalk and obstacles near the clear path to maintain the usable width of the clear path.

a. A shy distance of 2 feet shall be maintained adjacent to vertical barriers (including structures, walls, fences, signs, hedges, etc.) that extend to a height greater than 3.5 feet above the sidewalk surface ***and*** extend more than 4 feet in length parallel to the sidewalk.
b. A shy distance of 1 foot should be provided for all other fixed obstacles except that soft vegetative landscaping (grasses, annuals, succulents, and woody plants with stems less than one inch in diameter) less than 3.5 feet in height do not require a clear zone.
c. Shy distances do not apply where handrails are required on ramps, slopes, or stairs.

C.8. Landscaping beside sidewalks should be pedestrian friendly, and free from barbed wire, spiky plants, rapidly growing vines, and other landscaping that may cause puncture wounds or tripping hazards.

C.9. Required sidewalks must be connected such that, when complete, a continuous path is formed along the full length of a block face, including across driveways and alleys, that connects to sidewalks on intersecting block faces.

C.10. Alignment in right-of-way:

a. The clear path of a required sidewalk shall be separated from the back of curb or edge of pavement by a minimum of 3 feet along local and collector streets or 5 feet along arterial streets and expressways, including frontage roads.
b. The required clear path must be separated from the adjacent property line by at least 2 feet.
c. Meandering walkways may be used to avoid obstacles and minimize conflicts with driveways. If a meandering walkway is desired, the number of curves should be minimized to avoid creating a route that is too awkward and indirect, as approved by the City Engineer.

C.11. Sidewalks at a street or alley intersection must meet the level of the street or alley or be equipped with a ramp.

C.12. A sidewalk must be separated from any parking space by a physical barrier that will obstruct vehicles from intruding into the required clear path or shy distance. At any location where parking is allowed adjacent to the sidewalk, a minimum separation of 5 feet must be maintained between the required clear path of the sidewalk and a curb, wheel stop, or other barrier low enough to be overhung by portions of a vehicle.

C.13. Sidewalks must also comply with any additional design requirements that may be included in neighborhood plans, designated school route plans, other city plans or ordinances, or state and federal requirements.

C.14. Otherwise compliant sidewalks existing as of August 10, 2006 with a clear path width of at least 3 feet will satisfy sidewalk design requirements regardless of placement within the external right-of-way until replaced or reconstructed at which time the sidewalks should be brought into full compliance.

C.15. Any drainage feature that passes under a public roadway must be bridged by a section of sidewalk or paved shoulder on at least one side of the street to make provision for the safe passage of pedestrians out of the vehicle lanes of travel, even where there is no other requirement for a connecting sidewalk.

C.16. The external right-of-way of all public streets should be graded and maintained in a manner to allow safe and unimpeded passage by a person afoot even where there is no requirement for a built sidewalk. Artificial barriers, including landscaping, that prevent pedestrians from using the external right-of-way shall not be allowed.

D. Internal Pedestrian Walkways

Internal pedestrian walkways should be provided in accordance with the following standards:

D.1. Walkways should be provided to connect all on-site pedestrian circulation systems and all public entrances and exits to the public sidewalk system in a manner that minimizes out of direction pedestrian travel.

D.2. Internal walkways shall have a minimum clear path width of 4 feet.

D.3. Walkway/driveway crossings should be minimized and internal parking lot circulation design should maintain ease of access for pedestrians from abutting streets, pedestrian facilities, and transit stops.

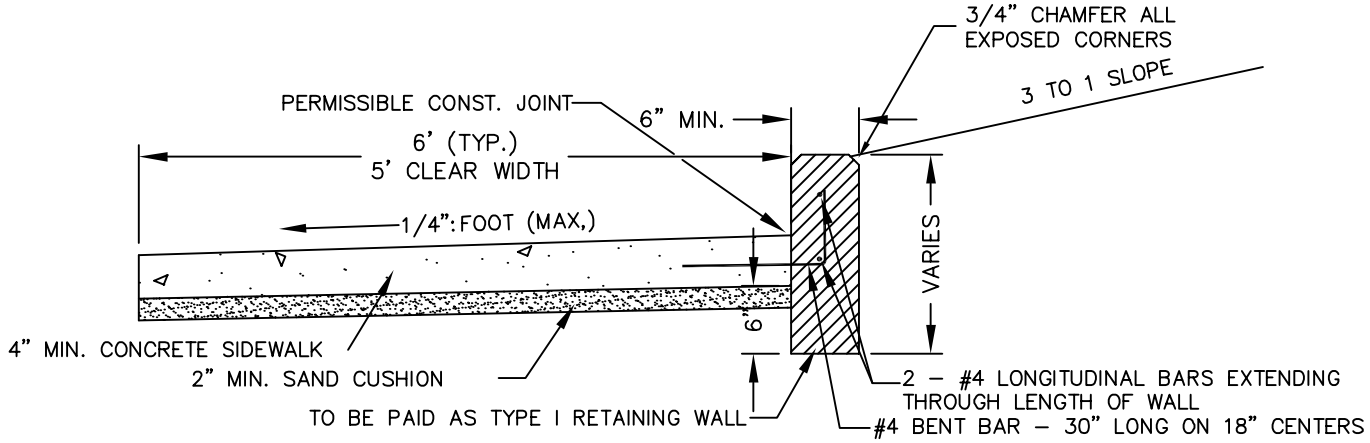
D.4. With the exception of walkway/driveway crossings, walkways should be separated from vehicle parking or maneuvering areas by grade, different paving material, or landscaping.

D.5. Internal sidewalks shall meet the requirements of applicable accessibility standards and other design and construction standards adopted by the City.

E. Definitions

E.1. “Clear path” means an unobstructed way free from obstacles or overhanging projections to a height of 8 feet above the ground, sidewalk, or surface.

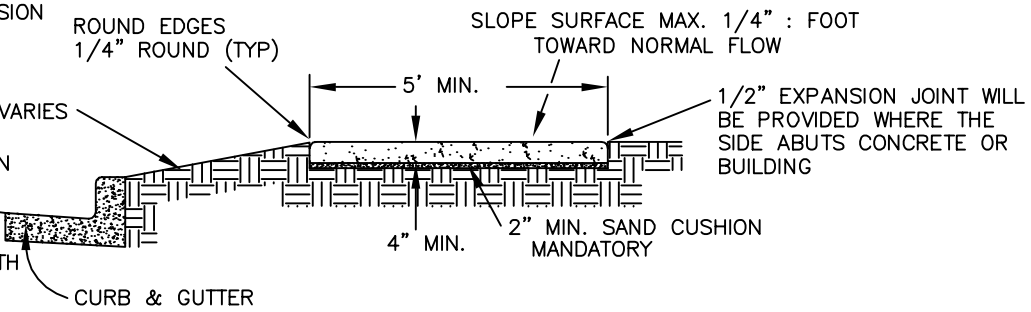
E.2. “Shy distance” means a designated width or buffer area along a path to allow for the pedestrian to instinctively avoid proximity to objects such as buildings, retaining walls, curbs, poles, and fences.



TYPICAL TYPE 1 RETAINING WALL

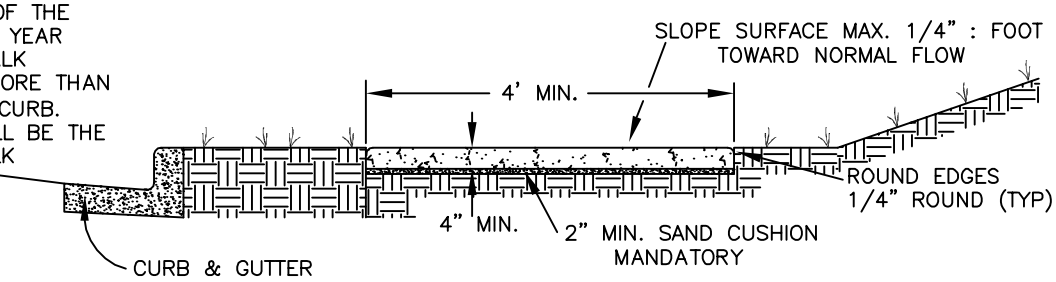
5' WIDE SIDEWALK
SAWED OR GROOVED CONTRACTION JOINTS EVERY 5' AND EXPANSION JOINTS EVERY 40'

NOTE:
ALL SIDEWALK SHALL BE A MIN OF 3000 PSI CONCRETE AND REINFORCED WITH:
6"X6" #6 WIRE MESH OR
#3 BARS ON 18" SPACING BOTH DIRECTIONS



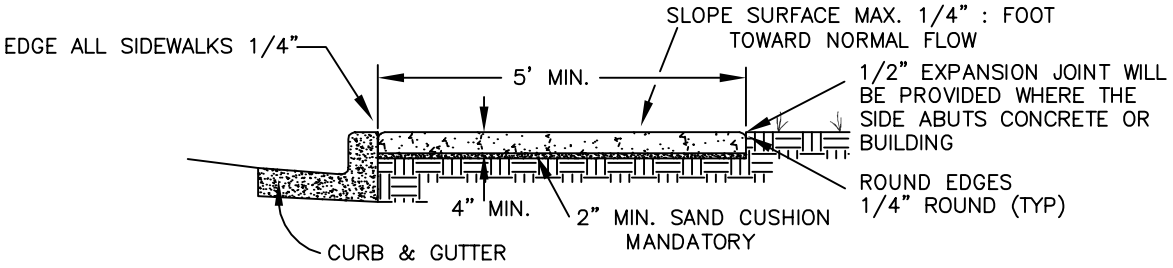
ARTERIAL, COLLECTORS & OCCASIONAL RESIDENTIAL STREETS

NOTE:
THE ENGINEER WILL ADJUST THE GRADE OF THE AREA BACK OF THE CURB TO ACCOMMODATE 100 YEAR FLOOD WATERS. THE SIDEWALK SHOULD NOT BE ELEVATED MORE THAN 4" FROM THE BACK OF THE CURB. FLOOD WATER DISCHARGE WILL BE THE CONTROL FACTOR IN SIDEWALK PLACEMENT AND ELEVATION.



NORMAL LOCAL AND RESIDENTIAL STREET

4' WIDE SIDEWALK
SAWED OR GROOVED CONTRACTION JOINTS EVERY 4' AND EXPANSION JOINTS EVERY 32'



LOCAL AND RESIDENTIAL, "ALTERNATE"

NOTE:

1) ALL SUBGRADE SHALL BE COMPACTED TO AN EQUIVALENT OF 95% PROCTOR DENSITY.
2) A ROUGH BROOM FINISH IS PREFERRED.
3) SLOPE OF SIDEWALK SHALL MEET 1/4":1 SLOPE MAX.
4) WET SUBGRADE SHALL BE CORRECTED PRIOR TO PLACEMENT OF CONCRETE.
5) ALL SIDEWALKS ACROSS DRIVEWAYS WILL BE 6" REINF. CONCRETE. (SEE CONCRETE APPROACH)
6) IN NARROW RIGHT OF WAY SITUATIONS, THE MINIMUM WIDTH OF CLEAR SIDEWALK TO BE 36 INCHES.

CITY OF ABILENE, TEXAS
ENGINEERING DIVISION

SIDEWALK DESIGN

DESIGNED BY: B. LINDLEY	
DRAWN BY: B. BAKER	APPROVED _____ _____
CHECKED BY: C. MARSHALL	DIRECTOR OF PUBLIC WORKS DATE