



The minimum width of residential alleys in the City of Keller is fifteen feet (15') of pavement with a right-of-way of twenty feet (20'). Alleys are constructed with a 5-inch inverted crown for drainage. The maximum grades for alleys are eight percent (8%) within thirty feet (30') of an intersection with a street and fourteen percent (14%) elsewhere, unless otherwise approved by the Director of Public Works or City Engineer. The minimum grade for alleys is six and one-half tenths percent (0.65%). Changes in grade, including intersections with streets, may not exceed three percent (3%) without providing vertical curves.

g) Pavement Design

All streets will be constructed of reinforced Class 'C' concrete with the minimum strength and thickness as shown in Table No. 6 of this section. Table No. 6 also calls for a minimum amount of lime or cement to be mixed with the subgrade soils for stabilization. A geotechnical investigation to determine the level of lime or cement to be added for soil stabilization may be required if deemed necessary by the Director of Public Works. The Developer or Contractor will be responsible for all costs associated with this geotechnical investigation and tests.

Standard pavement sections are established and are included in this manual in Table No. 6, "Minimum Standard Street Pavement Design." Unusual design conditions may be encountered which will preclude the use of Table No. 6. The proposed pavement will be designed in accordance with the geotechnical investigation or Table No. 6, whichever is more restrictive.

Table No. 5  
MINIMUM STANDARD STREET PAVEMENT DESIGN

| TYPE OF STREET   | CONCRETE THICKNESS (IN) | COMPRESSIVE PAVEMENT STRENGTH AT 28 DAYS (PSI) | REBAR SIZE AND SPACING                    | MINIMUM SUBGRADE TREATMENT *       |
|--|-------------------------|--|---|------------------------------------|
| Alley  | 6                       | 3,600  | No. 3<br>18" longitudinal<br>12" traverse | 6" lime or cement treated material |
| Driveway (Commercial Drive and Residential Approaches) | 6                       | 3,600  | No. 3<br>18" longitudinal<br>18" traverse | 6" lime or cement treated material |
| Fire Lanes   | 7                       | 3,600  | No. 4<br>18" longitudinal<br>18" traverse | 8" lime or cement treated material |
| Residential (local)                                    | 6                       | 3,600  | No. 3<br>18" longitudinal<br>18" traverse | 6" lime or cement treated material |
| Collector  | 7                       | 3,600  | No. 4<br>18" longitudinal<br>18" traverse | 8" lime or cement treated material |
| Arterial   | 8                       | 3,600  | No. 4<br>18" longitudinal<br>18" traverse | 9" lime or cement treated material |

\* Site specific per geotechnical report, subject of review and approval by the Public Works Director.

The developer or contractor will be required to furnish a geotechnical report indicating soil tests on the subgrade soils at four hundred foot (400') intervals, or more frequently if material changes are encountered. Such data will

include, but is not necessarily limited to Liquid Limit, Plasticity Index (P.I.), and Percent Passing No. 200 sieve. All soil tests will be performed by an independent testing laboratory, approved by the City of Keller, at the developer's or contractor's expense.

All subgrade soils will be stabilized with lime or cement treated base material to at least one foot behind the proposed curb, regardless of the type of soil encountered. The amount and type of stabilization will be in accordance with the geotechnical investigation recommendation or as shown in Table No. 6, whichever is more restrictive. Subgrade stabilization of residential driveways is recommended but shall be considered optional and the decision to comply with this recommendation shall be at the discretion of the builder or developer.

The street curb will not be more than six inches (6") wide at the top and seven and one-half inches (7-1/2") wide at the base and six inches (6") high. The gutter will be a minimum of twenty-four inches (24") wide. Mountable curbs do not create an acceptable side roadway barrier and will not be allowed.

h) Sidewalks

i) The purpose of the public sidewalk is to provide a safe area for pedestrians to walk. The City of Keller requires that sidewalks be constructed with the paving of streets or when building construction occurs, in all residential areas and wherever pedestrian traffic may be generated and that all sidewalks conform to state laws for barrier free construction. Refer to Section 5.06 of this Unified Development Code and the Standard Construction Details for design requirements not covered in this section.

ii) Concrete sidewalks will have a thickness of not less than four inches (4") and will be constructed of three thousand six hundred pounds per square inch (3,600 psi) compressive strength concrete on both sides of all streets and thoroughfares. Sidewalks will be constructed within the right-of-way and will extend along the street frontage including the side corner lots and block ends.

All concrete for sidewalks will be placed on a two-inch (2") sand cushion and will be reinforced with a minimum of No. 3 rebar on eighteen-inch (18") centers each way.

iii) All sidewalk intersections with street curbs shall be constructed so as to provide a curb ramp that complies with the Architectural Barriers Act. Barrier free curb ramps shall be provided for access to the street. The following specifications shall apply:

- Ramp to be a minimum four feet (4') in width.
- Ramp to be constructed with Class "C" concrete.
- Minimum ramp concrete thickness shall be six inches (6").
- #3 bars shall be used for reinforcement on eighteen-inch (18") centers both ways.
- Curb return shall match existing curb height of the street and taper to the connecting walk with a 1-foot radius.
- Street shall be blocked out (max. twelve (12") inches) and dowels installed.
- Saw joints shall be made one and a half (1 1/2") inch minimum depth and sealed with silicone joint sealant material.