

should be rounded 3.0 m where the material is other than solid rock.

303.01 SIDE SLOPE VALUES

Side slopes should be 1:6 or flatter depending on soil type. If slopes are steeper than 1:3, barrier may be required. Earth cut slopes should be at least 1:3 but in no case steeper than 1:2.

303.02 SLOPE CLEARANCE FROM RIGHT OF WAY

The minimum clearance from the right of way line to the catch point should be 3.0 m with 4.5 m desired. For cut slopes this is measured from the outer edge of the rounding or crown drainage system. Slopes over 15.0 m high may require additional clearance for maintenance.

304 MEDIAN STANDARDS

A median is the portion of a divided roadway between the opposing travelled pavements.

Raised medians shall be used on urban roads to regulate left-turn movements. Paved medians, including those bordered by curbs, should be crowned at the center, sloping towards the sides at the slope of the adjacent pavement.

Unpaved, landscaped medians between curbs shall be graded flat. Other unpaved medians should slope downward from the shoulders to form a shallow valley. Cross slopes should be 1:10 or flatter 1:20 being preferred. Slopes as steep as 1:6 are acceptable if necessary for drainage.

See Section 305 for specific roadway median requirements.

305 CROSS SECTION ELEMENTS

See Figure 300.01 for typical cross sections of various roadway classifications.

Pavement Structure - For the Standard Pavement Structures, see current Standard Drawings. Also, refer to Section 604 Structural Pavement Section Design.

Shoulders - Shoulder widths for various roadway classifications are summarized in Table 300.01.

305.01 RURAL FREEWAY/ EXPRESSWAY CROSS SECTION

General - The typical section for rural expressways shall be comprised of two roadways with shoulders, divided by a median.

Travelled Roadways - Each roadway will consist of a minimum of three 3.65 m through lanes. Ramps shall be 5.0 m for one lane and, where volumes demand, two 3.65 m lanes.

Median - Median treatment may be either standard concrete barriers placed along the inside shoulder edge or an unpaved depressed median. Median width may vary to match existing median widths. The width of the depressed median measured between edges of travelled pavement shall be 20.0 m minimum.

Cross Slope - Except superelevated sections, a uniform cross slope of 1.5 percent shall be applied across the inside shoulder and driving lanes. The outside shoulder will have a cross-slope of 3.0 percent. The pavement will slope toward the outside of the section.

On structures, the cross-slope shall be 1.5 percent uniformly across the inside shoulder, driving lanes, and outside shoulder.

Profile Grade Line - The profile grade line shall be at the median edge of the travelled roadway.

305.02 URBAN FREEWAY/ EXPRESSWAY CROSS SECTION

General - The typical section for urban expressways shall be comprised of two roadways, with shoulders, divided by a median. Due to space limitations, the cross section may vary. The final configuration shall be determined during the concept phase of design.