

**CHAPTER VI
PAVEMENT STRUCTURE DESIGN**

RIGID ESAL's	WITH TIED SHOULDERS AND/OR 14 ft. [4.2 m] PAVEMENT NRPPCP		WITHOUT TIED SHOULDERS AND 12 ft. [3.6 m] PAVEMENT NRPPCP	
	(in.)	(mm)	(in.)	(mm)
200,000,000 (*)	15	375	16	400
100,000,000 (Heavy Duty)	14	350	15	375
50,000,000 (*)	13	325	14	350
40,000,000 (Medium Duty)	12	300	13	325
24,000,000	11	275	12	300
12,000,000	10	250	11	275
6,000,000	9	225	10	250
3,000,000	8	200	9	225
1,500,000	8	200	8	200

The values in this table were developed using the 1986 AASHTO design criteria.

All Heavy Duty pavements will be placed on an 18 in. [0.45 m] Rock Base, or a Stabilized Permeable Base with a drainage system on a 4 in. [100 mm] Type 1 Base. All Medium Duty pavements will be placed on an 18 in. [0.45 m] Rock base or a 4 in. [100 mm] Type 5 Base with a drainage system. All Light Duty pavements will be placed on a 4 in. [100 mm] Type 1 Base or an 18 in. [0.45 m] Rock Base. Rock Base is the preferred base and should be used when available on the job site or economically practical to haul in.

The values shown under "Rigid ESALs" are the maximum numbers expected to be accumulated in one direction of traffic only over the life of the pavement, prior to adding additional structure. If two-way traffic ESALs are furnished, divide by two and use the result to decide which row of the table to use. Whether or not the shoulders are "tied" and shoulder width determine the correct column to use. Use 35-year ESALs for all projects except short bridge projects, in which case use 20-year ESALs.

* These entries provided for special design considerations but would be seldom used.

Rigid Pavement Thickness Selection Table