

VEHICULAR PAVER SPECIFICATION

There is often misunderstanding on what type of paving units are required for applications with truck traffic. Project specifiers will often mistakenly assume that C1272 paving units are required on all applications with any truck traffic. This is not always true. In many instances C902 paving units will meet the project requirements.

The standard for Heavy Vehicular Paving Brick ASTM C-1272 is intended for paving applications which receive a combination of both heavy vehicles **and** heavy volume. In order to make the intended scope of this standard more clear the ASTM Task Group for paving has recently revised the standard to more accurately define heavy vehicular traffic.

The current standard requires the use of heavy vehicular pavers only when traffic volume exceeds 251 daily equivalent single axle loads (ESAL). An ESAL, as defined by the American Association of State Highway and Transportation Officials (AASHTO) represents the passage of an axle of any mass (load) by a number of 18,000-pound equivalent axle loads. Axle loads from specific vehicles such as passenger car or a semi-tractor trailer are converted to ESAL's using an equivalency factor (EF).

The following is an example for a two-lane flexible pavement in an urban area with daily traffic levels that would represent an ESAL level of 250.

<u>Vehicle Type</u>	<u>Daily Traffic</u>	<u>EF</u>	<u>ESAL</u>
Cars	10,000	0.0008	8
Pickups	350	0.013	4.5
Buses	170	0.69	117.3
Delivery Trucks	50	1.48	74
Semi-Trucks	20	2.31	46.2
ESAL			250

The actual equivalency factors and above computations would vary depending on the specific parameters of a project such as serviceability and structural design requirements, frost and drainage considerations but the example serves to illustrate typical daily traffic volumes corresponding to an ESAL of 250.