## SECTION 18.02 TYPE A--IMPACT ATTENUATION SYSTEM

**18.02.01--Description:** Work under this item shall consist of furnishing and installing sand inertial barrier modules of the size, configuration and location shown on the plans or as directed by the Engineer.

**18.02.02--Materials:** The sand inertial barrier modules shall be designed and manufactured of materials which will shatter upon vehicular impact to permit dispersion of the sand mass contained therein and shall be ultraviolet ray stabilized to permit long term installations. The material shall not create a hazard when the modules are impacted.

The modules shall be designed to ensure that the center of gravity of each module is at the proper elevation to control the attitude of impacting vehicles so as to prevent ramping and the sand is kept in a dry state with a moisture content of 6 percent or less.

Sand shall conform to the requirements of M.05.02-2 and shall have a maximum moisture content of 6 percent.

Sodium chloride shall conform to the requirements of AASHTO, M143, Type 1, Grade 1.

**18.02.03--Construction Methods:** The sand inertial barrier modules shall be constructed as recommended by the manufacturer and installed as shown on the plans or as directed by the Engineer.

The sand shall be thoroughly mixed with 20 percent, by mass, of sodium chloride.

If the modules are to be installed on sloping surfaces, a leveling device approved by the Engineer shall be attached to the pavement or apron surface. As each module is placed in its final position, it shall be filled to the proper mass of the sand-salt mass as shown on the Plans  $\pm 4.5$  kg.

The temporary barrier modules shall be maintained by the Contractor during all stages of construction.

Module lids shall be fitted securely, and shall be fastened in a manner to prevent it from being lifted or removed, as directed by the Engineer.

**18.02.04--Method of Measurement:** Sand inertial barriers will be measured for payment for each module installed and accepted by the specified mass.

**Article 18.02.05--Basis of Payment:** Sand inertial barriers will be paid for at the Contract unit price for each "Type A Impact Attenuation Module" of the specified mass, which price shall include all materials, equipment, tools and labor incidental to the complete installation as specified.

Pay Item Pay Unit
Type A Impact Attenuation Module (Mass) EA.