

<p>TO:</p> <p>Director, Preliminary Plan Review Bureau</p> <p>MODIFIED BY EI 76-007 EFFECTIVE 1/14/1976</p>	<p style="text-align: center;">ENGINEERING INSTRUCTION</p> <p style="text-align: center;">NEW YORK STATE DEPARTMENT OF TRANSPORTATION</p> <p>SUBJECT: IMPACT ATTENUATORS</p> <p>Subject Code: 7.26.10.06.03</p>
<p>Distribution:</p> <p><input checked="" type="checkbox"/> Main Office <input checked="" type="checkbox"/> Regions <input type="checkbox"/> Special</p>	<p>Code: <u> EI 75-68 </u></p>
<p>APPROVED:</p> <p style="text-align: center;"><i>Malcolm D. Graham</i></p> <p style="text-align: center;">MALCOLM D. GRAHAM, Chief Engineer</p>	<p>Date: <u> 10/15/75 </u></p> <p>Supersedes:</p>

Based on a review of available test results and operational experience Energy Absorption Systems Inc. Energite Inertial Barrier has been judged to be an acceptable alternate to the Fibco Inc. Fitch Inertial Barrier. The Department's design criteria of a maximum deceleration rate of 6 g's at the greater of: 1) highway design speed; 2) highway operating speed or 3) posted speed shall apply. Design engineers are advised that the Highway Maintenance Subdivision is authorized to mix Energite and Fitch modules within the same attenuator array. The design of Energite impact attenuators shall be similar to Fitch designs. Therefore, no 200 lb. modules will be used and 2100 lb. modules will be required in Energite attenuators.

In accordance with FHWA notice N5040.8 dated June 11, 1975, when inertial type barriers are used the designer shall recognize the lack of redirection capability by positioning the last three rows of modules in such a position as to provide a two and one-half feet clearance between the outside of the hazard and the outside prolongation of the outside of the array of barrels. In no case shall the barrels be spaced further apart than can be accommodated by the array design. No new curbs are to be installed in front of impact attenuators, however, approval is given to retain existing curbs which are four inches or less in height. Curbs greater than four inches but not in excess of six inches in height should be removed unless consideration of the curb shape, site geometry, imminence of overlays that would reduce curb height, and cost of removal indicates the appropriateness of allowing the curb to remain. Curbs over six inches shall be removed from in front of, and back to the rear of, any impact attenuator. When curbs are removed or lowered an appropriate curb transition of not less than fifteen feet in length shall be used to reach the full height curb.

Recent manufacturer's data indicates that for best results inertial barrier barrels should be spaced one foot apart and a minimum of three feet should be provided between a fixed object and the extremity of the closest row of barrels.

The contents of this Engineering Instruction will be incorporated in revision nine of the Department's Design Manual.