THE G-R-E-A-T® SYSTEM

The ideal crash cushion for narrow-site hazards

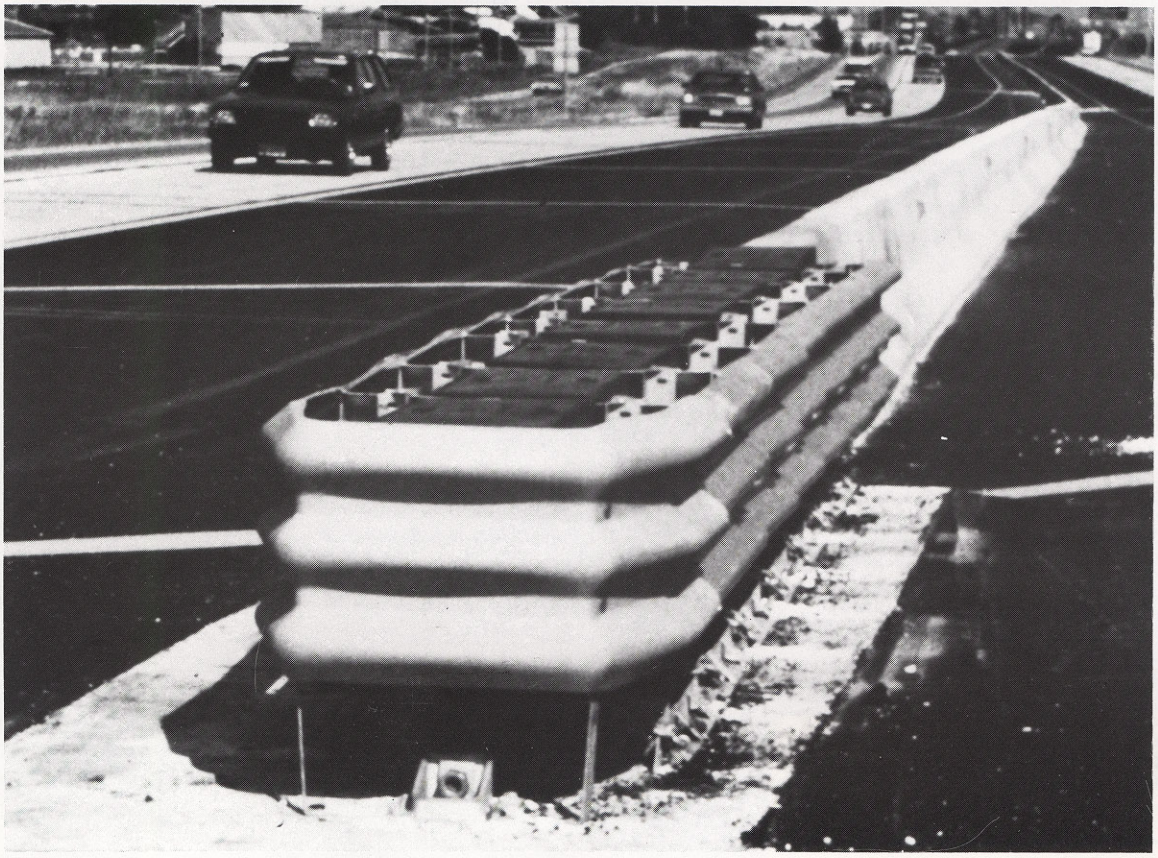
- **Meets modified NCHRP 230 test tolerances**
- **Flexible in design**
- **Quickly renewable**
- **Superior redirection**
- **Lightweight**
- **Proven effectiveness**

The new G-R-E-A-T® System with Hex-Foam® II cartridges provides for 11% more energy-absorbing capacity while maintaining 85% efficiency of the unit. The G-R-E-A-T System offers all this plus redirection and easy renewability in a narrow package.

In response to the modification of the test tolerances outlined in NCHRP 230, the G-R-E-A-T System was redesigned. The ideal crash cushion for narrow-site hazards such as the ends of double-faced guardrails and at butterfly signs, this unit can also be mounted directly onto the ends of concrete median barriers.

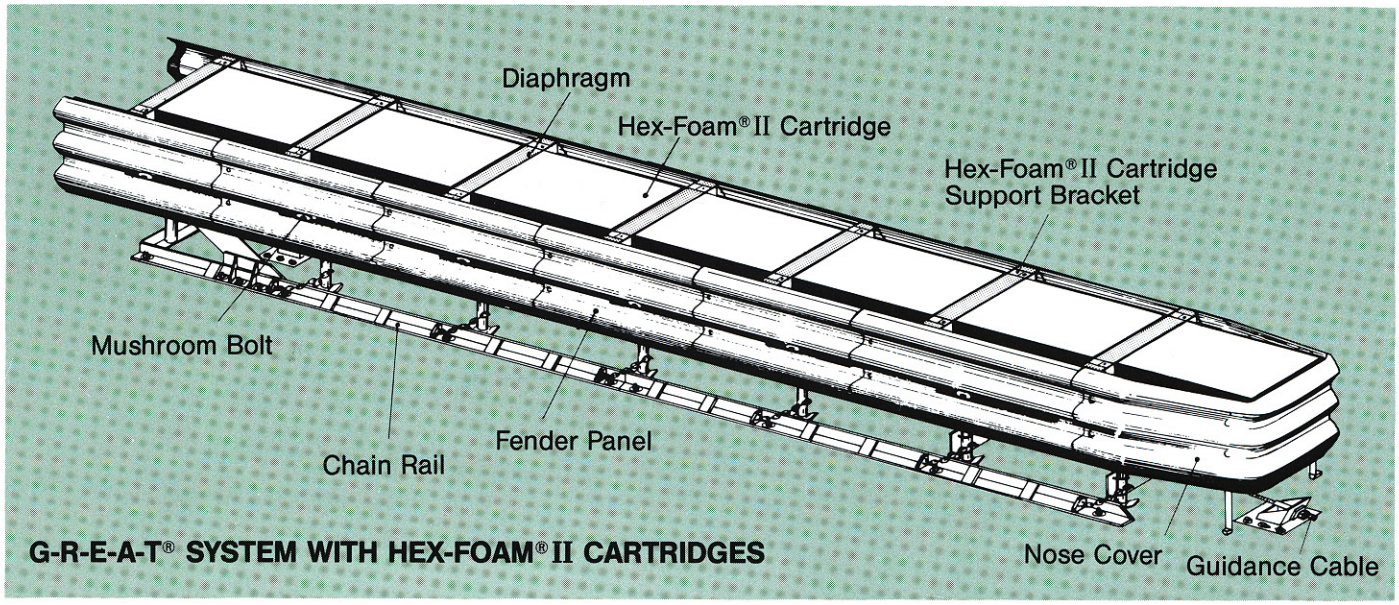
The G-R-E-A-T System consists of crushable Hex-Foam II cartridges surrounded by a framework of triple-corrugated-steel guardrail. When hit head-on, the energy-absorbing cartridges crush to absorb the energy of the impact, while the steel guardrail side panels telescope. Only the cartridges are expended. When hit from the side, these panels are restrained by leg pins and guidance cables to gently redirect the errant vehicle, resulting in little or no damage to the unit.

As narrow as 2'0", the G-R-E-A-T System can unobtrusively protect a narrow-site hazard without creating another. And it stays narrow when hit. The G-R-E-A-T is lightweight, and its effectiveness is easily and quickly restored after an impact. Its safety efficiency is greater than any other systems available today. It's the G-R-E-A-T System!



SEE THE OTHER SIDE FOR MORE DESCRIPTIVE INFORMATION AND SPECIFICATIONS

THE G-R-E-A-T® SYSTEM



G-R-E-A-T® SYSTEM WITH HEX-FOAM® II CARTRIDGES

APPLICATIONS:

- Guardrail and median barrier ends in confined areas
- Bridge pillars
- Center piers
- Gore areas
- Butterfly signs
- Light posts
- Where the added advantage of redirection is desired along with protective cushioning

DESIGN ADVANTAGES:

- Suitability for narrow-site hazards, where no other system will fit.
- Debris is contained within the replaceable Hex-Foam® II cartridge assembly. No parts fly loose to cause possible secondary accidents.
- A truck can quickly pull the unit back into position. Renewal can be done by three men and a truck within an hour.
- Most side-angle hits result in no damage to the unit.
- The G-R-E-A-T System offers all the advantages of guardrail, including strength, low maintenance, and anti-climb characteristics.
- A consistently safe deceleration G-load level is maintained by the G-R-E-A-T System for both heavy and lightweight vehicles at all speed levels included within the limits of the design criteria. The exceptional energy-absorbing characteristics of the G-R-E-A-T System are illustrated in the graph at lower right. While the graph information is accurate, it is not intended for use in specifications. Please contact Energy Absorption for design assistance before detailing a G-R-E-A-T System.

SYSTEM CHARACTERISTICS:

Minimum width at the backup	2′0″
Maximum width at the backup	3′0″; 2′6″ unit also available
Weight	2,500 lbs (typical 5-bay unit)
Length	15′ to 33′ (4 bays to 10 bays)
Debris scatter	Generally none
Repair time for 3-man crew	Less than an hour
Equipment needed for repair	Truck, tow chains, wrenches

BACKUP ADAPTABILITY:

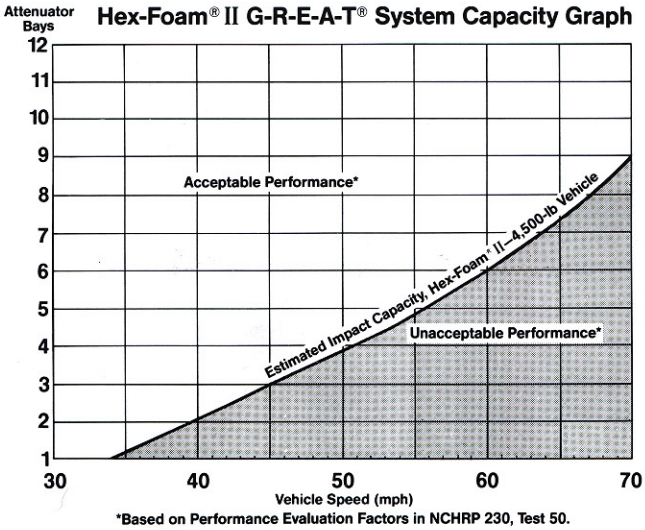
Cast-in-place concrete backup with metal straps to attach the G-R-E-A-T unit.

Wide flange galvanized steel beams embedded in concrete, used where no concrete had existed.

Tension strut backup features diagonally braced galvanized steel struts, bolted to existing chain rail, which is anchored to concrete deck.

New Jersey barrier features galvanized steel structural tubing, bolted to sides of existing concrete barrier.

Hex-Foam® II G-R-E-A-T® System Capacity Graph



*Based on Performance Evaluation Factors in NCHRP 230, Test 50.

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