

THE QUEST[®] SYSTEM

NCHRP 350
Crash
Cushion



OVERVIEW

The Quest System is a simple redirective, non-gating crash cushion that has been completely tested and has successfully passed the entire NCHRP 350 test matrix at test levels two and three. The 70 mph Quest System has been tested and accepted by the FHWA after successfully passing NCHRP 350 test 3-31. The Quest System consists of a series of W-beam fender panels supported by diaphragms with an innovative integrated trigger mechanism at the nose that releases a "front assembly" during impacts to absorb the energy of impact. The system is designed to telescope rearward during head-on impacts to absorb the energy of such an impact and to redirect vehicles during side angle impacts. The system provides protection for hazard widths ranging from 24" - 36".

ANCHORING OPTIONS

Several anchoring options are available for the Quest System:

- Concrete: requires only 30-7" threaded rod anchors with MP3 resin grout.
- Asphalt: requires only 32-18" threaded rod anchors with MP3 resin grout.
- Soil or Asphalt: requires only 6 (DPA) Drivable Pile Anchors.

FAST AND EASY INSTALLATION

The Quest System is designed for fast and easy installation. Assembled at the factory, the Quest is ready to be installed. If preferred, the Quest can be shipped unassembled. The free standing backup is designed to shield hazards up to 914 mm (36") wide. Thirty anchors are all that are required for installation. Also available with a drivable pile anchoring system for high speed installations in soil or asphalt



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THE QUEST® SYSTEM

SPECIFICATIONS

	70K	100K	115K
Length	5.36m (17'17")	7.16m (23'6")	9.04m (29'8")
Width	610mm, 762mm, & 914 mm (24", 30", 36")		
Weight	499kg (1100lb)	659kg (1453 lb)	816kg (1800lb)

CRASH PERFORMANCE

The Quest System meets NCHRP 350, Test Level 2 & 3 as a redirective, non gating attenuator. The Quest System is also capacity tested to 70mph (115km/h). It is designed to absorb the energy of impact for vehicles weighing between 1,810 and 4,410 lbs (820 and 2,000 kg) traveling at speeds up to 62 mph (100 km/h). During a head-on-impact at the nose, the Quest System Telescopes rearward to absorb the energy of impact and bring the vehicle to a controlled stop.

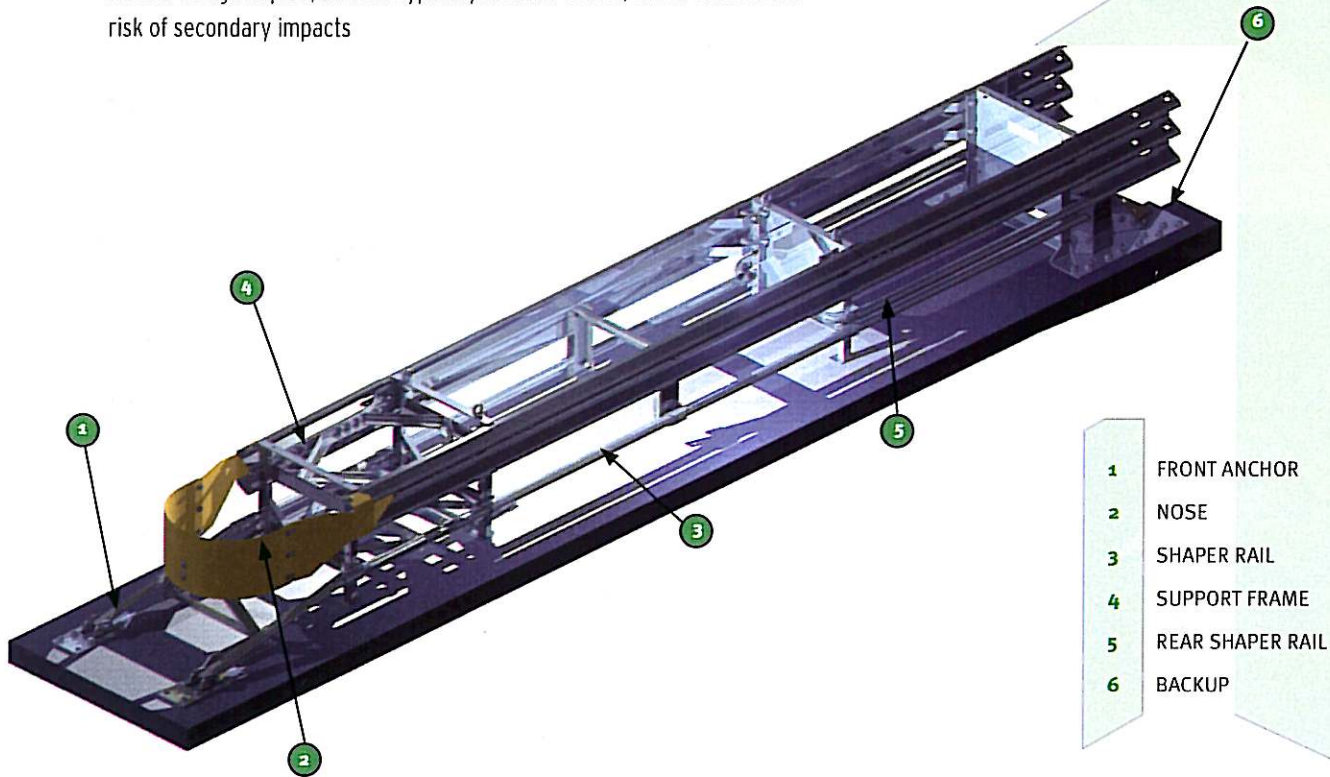
During side angle impacts, the Quest system is capable of redirecting 4,410lb (2,000 kg) vehicles at angles up to 20 degrees.

After a design impact, there is typically no solid debris, which reduces the risk of secondary impacts

TRANSITION OPTIONS

Several transition panels are available for the Quest System, including:

- Transition to New Jersey Safety Barrier
- Transition to W-Beam
- Transition to Concrete Median Barrier



- 1 FRONT ANCHOR
- 2 NOSE
- 3 SHAPER RAIL
- 4 SUPPORT FRAME
- 5 REAR SHAPER RAIL
- 6 BACKUP



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General Specifications for the Quest System are subject to change without notice to reflect improvements and upgrades. Additional information is available in the Product Manual for this system. Contact Energy Absorption System for details.