

**SECTION 01440****TEMPORARY CRASH CUSHIONS (G-R-E-A-TC<sub>2</sub>) FOR  
MAINTENANCE OF TRAFFIC****01440.01 GENERAL****A. Description**

This work shall consist of furnishing and installing, complete in place, temporary crash cushion (G-R-E-A-TC<sub>2</sub>) within construction zones in accordance with the manufacturer's recommendation. The crash cushions can be arranged in a variety of patterns to protect errant motorists from collision with unmovable hazards during construction. They shall be located as shown on the Traffic Control Plan (TCP) and/or as directed by the Engineer.

**B. Related Work Included Elsewhere**

Traffic control plan; Section 01411.

**C. Quality Assurance**

1. The Engineer will inspect all materials before and/or after installation to ensure compliance with the Contract Documents.
2. The Contractor shall perform periodic checks at least once a week to determine that no unreported or undetected damages have occurred as well as to determine that the unit(s) are performing as required.

**D. Submittals**

Shop drawings shall be submitted as specified in the "General Provisions" for (G-R-E-A-TC<sub>2</sub>) crash cushions. The shop drawings shall include general product description and impact attenuation capability.

**01440.02 MATERIALS****A. Materials Furnished by the County**

The County will not furnish any materials for temporary, hydrocell-type impact attenuators.

**B. Contractor's Options**

Not applicable.

**C. Detailed Material Requirements**

Each G-R-E-A-TC<sub>2</sub> crash cushion shall consist of a number of predetermined individual cartridges, miscellaneous metalwork, diaphragms, fender panels, a backup system, base pad, anchor device, and a hose wrap as manufactured by Energy Absorption Inc., Rich Hydrocushion Inc. or equal as approved by the Engineer.

**01440.03 EXECUTION**

**A. Installation**

The G-R-E-A-TC<sub>2</sub> crash cushion system shall be installed and securely anchored on a base pad that has been prepared to meet the manufacturer's recommendations at the locations shown on the TCP and/or as directed by the Engineer.

**B. Repairs of Damaged Crash Cushions**

During the intended life of the G-R-E-A-TC<sub>2</sub> crash cushions, the Contractor shall provide the necessary maintenance in order that each crash cushion system remain in its original condition and position. Should the crash cushion system become damaged, the Contractor shall immediately repair the system using the manufacturer's spare parts package(s). The Contractor shall perform any necessary re-grading and/or re-anchorage of the system and shall remove any debris or remnant of the damaged crash cushion system from the Project site.

**C. Removal**

After the crash cushion system has served its intended purpose, the Contractor shall completely remove the installation from the Project site and perform any necessary surface restoration such as grading, filling, cleanup, sodding, seeding, and mulching of the area to the satisfaction of the Engineer.

**01440.04 METHOD OF MEASUREMENT**

**A. Temporary Crash Cushion (G-R-E-A-TC<sub>2</sub>) Installation**

Measurement for temporary crash cushion (G-R-E-A-TC<sub>2</sub>) installation will only be made after the entire unit has been installed in place as shown on the TCP and accepted by the Engineer. The measurements will then be made for the actual number of units satisfactorily installed. Backup blocks, base pads, anchors, fastenings, and other hardware, labor, and materials necessary to install the complete G-R-E-A-TC<sub>2</sub> temporary crash cushion system in place will not be measured but shall be incidental to the price bid for the item.

**B. Repairing Damaged Crash Cushions**

Measurement for repairing damaged crash cushions will be made for each spare parts package utilized for repair and shall include all hardware, labor, and materials necessary to reestablish the crash cushion to the configuration shown on the TCP.

**01440.05 BASIS OF PAYMENT**

**A. Temporary Crash Cushion (G-R-E-A-TC<sub>2</sub>) Installation**

Payment for temporary crash cushion (G-R-E-A-TC<sub>2</sub>) installation will be made at the price bid per each. Payment will be made of 75 percent of the price bid per each on the first monthly estimate subsequent to the satisfactory installation on each crash cushion system. The remaining 25 percent will be paid on the first month estimate after satisfactory removal and surface restoration. The price bid will be full compensation for all materials and labor including base pads, anchors, fastenings, fixtures, erection of materials, backup blocks, supports, galvanizing of metal parts, connections to bridges or structures or fixed objects as well as tools, labor, and incidental work necessary to provide a completed crash cushion. Payment will constitute full compensation for complete removal of the device when directed by the Engineer. Removal includes patching holes in walls, structures, roadway, or shoulder surfaces or any object into which holes were made to anchor or stabilize the crash cushion as well as cleaning and clearing the area of all debris connected with the use of the installation and any necessary regrading, sodding, seeding, and mulching of the area.

**B. Repairing Damaged Crash Cushions**

Payment for repairing damaged crash cushions (G-R-E-A-TC<sub>2</sub>) will be made at the price bid per spare parts package. The price bid shall include the furnishing and erecting complete all materials, fastenings, fixtures, backup blocks, supports, galvanizing metal parts, reconnection where necessary to fixed objects as well as all tools, labor, and incidental work to reestablish the crash cushion configuration to that shown on the TCP or as directed by the Engineer. Payment will constitute full compensation for the clearing, removal, and disposal of debris and unsalvageable parts connected with damaged crash cushions.

**C. Ownership of Removed Materials**

The G-R-E-A-TC<sub>2</sub> crash cushion system and all associated parts, when satisfactorily removed from the Project site, shall become the property of the Contractor.

END OF SECTION