

**OKLAHOMA DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION
FOR
CONSTRUCTION SIGNING AND TRAFFIC CONTROL**

These Special Provisions amend and where in conflict, supersede applicable sections of the 1999 Standard Specifications for Highway Construction, English and Metric. Units of measurement are provided in the subsections in both English and Metric equivalents. The units for this project will be those specified in the project plans.

880.02. MATERIALS.

(a) Construction Signing and Traffic Control Materials.

(Revise as follows:)

10. *Plastic Drums.* Drums shall be of two-piece breakaway type, meeting the requirements of the "Manual on Uniform Traffic Control Devices," current edition. Vendor shall submit a letter of "Certificate of Crashworthiness" that drums, with conventional barricade warning lights securely attached, meet the NCHRP-350 Category 1 Device requirements. These drums are to be used as Channelizing devices on construction and maintenance operations.

Plastic drums shall have a minimum overall height of approximately thirty-six inches (36") (900 mm) with a minimum diameter of eighteen inches (18") (450 mm) at any point. The upper body of the unreflectorized drum shall weigh a minimum of 9.5 pounds (4.31 kg). The base shall weigh a minimum of 40 pounds (18.14 kg).

Drums shall be constructed of impact resistant, low density polyethylene (density of 0.925 and melt index of 0.3). The material shall be bright orange in color and resistant to color fading. The material shall maintain structural integrity throughout a temperature range of -58° F to +120° F (-50° C to +50° C). All sheeting surfaces shall be 100% flame treated to maximize adhesion of reflective sheeting to the channelizer body.

Drums shall be designed to accept horizontal, circumferential bands of reflectorized sheeting four inches (4") (100 mm) to six inches (6") (150 mm) wide. The drum shall have a D-shaped configuration at the base attachment point to minimize rolling after impact. The unit shall have an enclosed top and be weather tight and shall have provisions for drainage to prevent water from accumulating. Drums shall be stackable without damaging the reflective surface. Drums shall provide the facility for attaching two type "A" or "C" conventional barricade warning light which stay in place with repeated impacts with speeds greater than 55 M.P.H (88 km/h) and meet the NCHRP-350 requirements.

Drum Base sections shall not exceed four inches (4") (100 mm) in height. The base shall be an integral component of the Plastic Drum. The base shall be manufactured with a minimum quantity of 45% post consumer or post industrial (recycled) rubber, with a total weight of 40 pounds (18 kg), and with a maximum 3" (76 mm) vertical profile. Drum base shall be designed so that it may be attached or detached by one person without the use of any tools. The assembled unit shall withstand 60 M.P.H (100 km/h) winds, turbulence created by passing trucks and cars, moderate winds, or repeated movement during

construction and maintenance operations.

The top portion of the unit, upon impact by a vehicle, shall deform and breakaway from the base and ballast, The ballast must remain in place, allowing the vehicle to pass over it.

The exterior vertical surface shall have alternating, two-orange-two-white circumferential stripes starting with the orange stripe at the top of the drum. Each stripe shall be four inches (4") (100 mm) wide and shall be reflectorized. The bottom portion of the drum shall not be reflectorized. If there are non-reflectorized spaces between the horizontal orange and white stripes, they shall be no more than two inches (2") (50 mm) wide.

Reflective sheeting shall meet the requirements of the latest ASTM D4956 for Type III Reboundable sheeting.

(b) Sampling and Testing. A type D certification shall be furnished in accordance with subsection 106.04.