CARSONITE PRODUCT SPECIFICATION FOR CARSONITE LINEMARKER (CLMU30XXXX)

1 SCOPE

This specification covers the minimum material and performance requirements for the Carsonite LineMarker. The Carsonite LineMarker shall be a cylindrical polymeric marker mounted on a 3.5" O.D. post and may be used for the identification of buried utility services. These markers may be used in road right-of-ways and installations requiring 360° visibility, good outdoor durability, and impact resistance.

2 GENERAL

2.1 MATERIALS

The Carsonite LineMarker shall be comprised of polymer materials, which are resistant to impact, ultraviolet light, ozone, or hydrocarbon damage. The post and marker shall remain impact resistant in temperatures of -20°F to 140°F.

2.2 DESIGN

The Carsonite LineMarker shall incorporate a cylindrical tube construction. The Carsonite LineMarker shall be capable of permanent or temporary installation on a 3.5" O.D. tube and may utilize an anchor barb below ground level to prevent rotation and marker removal. (See Figure 1)

2.2.1 Dimensions

The Carsonite LineMarker shall have an outside nominal diameter of 3.82 inches. The nominal wall thickness shall be 0.13 inches and the overall length shall be 18.00 inches.

2.2.2 Color

Standard colors for the Carsonite LineMarker shall be white, yellow, green, blue, red or orange in color. The Carsonite LineMarker shall be pigmented throughout its entire cross section.

2.2.3 Graphics

The graphics shall consist of a solvent-based Ink that is abrasive and UV resistant.

2.3 WORKMANSHIP

The Carsonite LineMarker shall exhibit good workmanship and shall be free of burns, discoloration, and other objectionable marks or defects, which affect appearance or serviceability.

3 PHYSICAL AND MECHANICAL PROPERTIES

3.1 WEIGHT

The Carsonite LineMarker shall have a total weight of 1.0lb.

3.2 TENSILE STRENGTH

The Carsonite LineMarker shall have a minimum tensile strength of 2700 pounds per square inch, as measured by ASTM D638 (specimen type I with separation rate of two inches per minute.)

3.3 STRENGTH RETENTION UNDER TEMPERATURE CHANGE

The Carsonite LineMarker tensile strength shall not deviate more than 10 percent from the standard room temperature result when tested at both $140\,^{\circ}\text{F}$ and $-20\,^{\circ}\text{F}$ after a minimum of two hours conditioning at the respective temperature.

3.4 COLOR FASTNESS

The Carsonite LineMarker shall have its componets pigmented throughout their entire cross-sections so as

to produce uniform colorings integral to the respective materials. Ultraviolet resistant materials shall be incorporated into the composite housing to enhance its resistance to fading or cracking in outdoor environments.

3.5 VEHICLE IMPACT RESISTANCE

A six-foot post with an 18" LineMarker attached, installed to a two-foot burial depth, shall be capable of withstanding at least one vehicle impact at 35 mph. The marker shall return upright within 15° of vertical position within a maximum of 30 seconds from the time of impact. The warning legend shall be retained on the marker after each impact.

4 OPTIONAL TEST STATION

4.1 The Carsonite LineMarker with test station/terminal option shall consist of a Scepter Cathodic Test Station, and a Carsonite LineMarker mounted to the top of a 3.5" O.D. post.

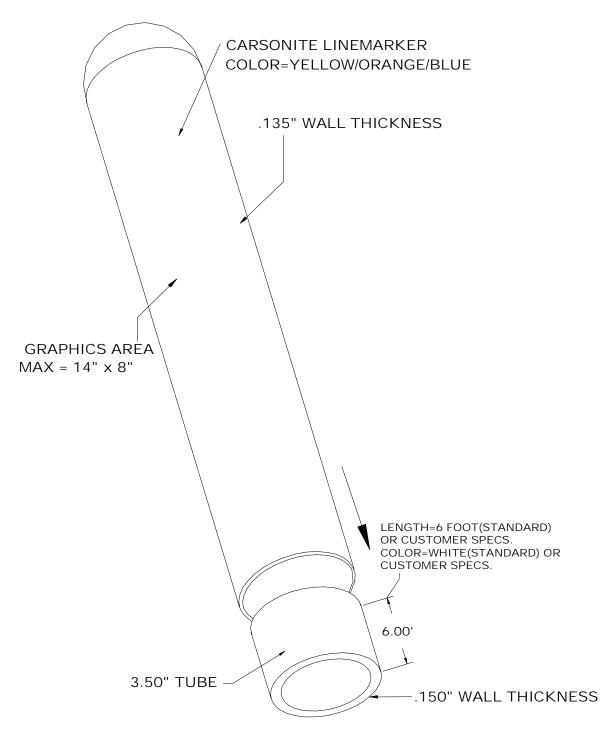


FIGURE 1