

## **Sign Bid Specification**

All graphics shall be printed and manufactured on a sign substrate made of solid heat-treated aluminum or similar durable metal that has minimal expansion or contraction in temperature extremes and will not corrode, rust or deteriorate over the required life of the sign. This substrate shall be available in thicknesses ranging from .032 for flexible sign applications to .125 inches for interpretive sign applications. When used for interpretive sign applications, the sign substrate shall be strong enough to serve as an integral structure for the exhibit base, eliminating the need for and cost of the metal plate that is often required with HPL, polycarbonate or fiberglass embedment signs. To minimize logistics and associated costs, the sign manufacturer shall also engineer, manufacture and provide a complete offering of durable aluminum exhibit stands for these signs that meet all ADA and applicable standards for outdoor sign applications.

The manufacturing process shall be a “green” process that includes no formaldehyde or VOCs anywhere in the production process. The base metal shall be coated on all sides to form a protective barrier for the substrate. Due to the inherent weakness of paper fiber when exposed to UV light, no paper shall be used in the graphics production process. Printing shall be applied directly onto the coated aluminum or non-corrosive metal substrate. The printed graphics and imagery shall be protected with top coating(s) containing UV inhibitors to protect the graphic images from fading. The protective overlay(s) shall be fused and bonded with the graphic inks and base substrate using a thermal curing process to form an integral, durable composite to protect the graphics. The fused overlay shall form a hydrophobic barrier, protecting the graphics from graffiti, salt, moisture intrusion, extreme weather and temperature changes, as well as serve as a first defense against vandalism. To meet this requirement, the top coating(s) must be relatively hard and durable, having a Barcol rating equal to 56B or greater and an impact resistance greater than 60 inch pounds per inch as measured per the ASTM D2794-93 testing methodology. The overlay shall also meet the deflection requirements outlined in ASTM D522 with no cracking of the finish when stressed in accordance with that testing methodology.

The signs shall be highly durable with a minimum 10-year warranty covering UV fading, cracking, peeling, blistering and/or delamination. Regarding maintenance, there shall be no warranty requirement for an annual application of a water sealant and no exclusions for extreme weather temperatures. The sign surface shall facilitate easy removal of graffiti without damaging the sign’s surface. when utilizing the recommended graffiti removal process.

All sign panels and sign components utilized in the manufacturing process shall be manufactured in the U.S.A.