In-Tunnel Motion Picture Advertising Displays to Debut in Atlanta

Special to Passenger Transport

A tunnel in the Metropolitan Rapid Transit Authority system will be the site for innovative advertising.

In September, passengers on the Metropolitan Atlanta Rapid Transit Authority system will experience new advertising technology from Submedia LLC, which displays "motion pictures" while the train is in operation.

The technology uses no moving parts or complex electronics, yet shows vivid advertising movies to train riders. The displays are installed on tunnel walls between stations, providing advertisers with a completely new venue for advertising.

Coca-Cola will be the first advertiser in the U.S to take advantage of this new medium, introducing a 20 - second long ad in MARTA tunnels this September.

To understand the impact of this new form of advertising, imagine a rider boarding a train and seeing other riders, some static ads on the car walls, and the station through the windows. The passenger may feel captive and bored. When the train starts moving, the passenger expects to see only a dark tunnel outside - but instead, he or she sees a motion picture advertisement being projected right outside the train window, as if it were a movie screen. The ad lasts for 15 seconds or more, providing a captivating, full color "movie" to all of the riders on every train.

Submedia installs its technology on the walls of dark tunnels between rail and subway stations. The advertising movies are designed to be exciting to the riders, reach a huge and valuable consumer base for advertisers, and generate significant revenues for transit authorities.

Transit authorities understand the importance of non-farebox revenue which can be used to buy new buses, rail cars support infrastructure and staff, and help defray the need for fare increases. Increasingly, they are embracing opportunities for new revenue streams whenever possible.

Submedia's propriety motion picture advertising display technology provides an entirely new and substantial revenue stream to mass transit organizations. Tunnel walls, a previously unrealized resource, provide the spaces for this new medium, while advertisers provide the revenues.

MARTA is the first transit authority to implement this new technology, with revenues projected in the $30 million to $40 million range over a five year period. Revenue

projections for larger transit systems are even higher, in the range of $100 million to $200 million over five years, according to Submedia.

Coke immediately recognized the value of this innovative way to build relationships with consumers, and will promote its Dasani bottled water brand in the MARTA displays this September. Coke has also secured rights for future ads in additional cities.

The technology is based on a nineteenth century device called the zoetrope, which was a precursor to modern movie projectors. The zoetrope is a cylinder with slits cut into the top edge and images placed inside. The cylinder is spun around its axis, and the viewer looks through the moving slits at through the lists appear to move, as if animated.

The technology involves man frames placed into small horizontal distance. This results in exceptionally high frame rates. Based on an average train speed of 35 miles per hour, images will be displayed at a frame rates between 200 and 300 frames per second, about 10 times the frame rate of television. This is significant, because if the train slows down even to a tenth of its normal speed, the advertisement still looks great, displaying frame rates close to that of television.

A display is mechanically simple. operating with no moving parts, no flashing lights and no microchips, sensors or other complex electronics. The display consists of low profile metal ad boxes installed side,-by-side on a rail system along runnel walls at window height. Each box is about the height of a rail car window. Each box is enclosed and contains an ad card with printed images, standard fluorescent bulbs and ballasts. Several thin, vertical slits on the box face correspond to images on the ad cards.

A typical display is approximately 500-1,000 feet long and consists of 200 to 300 ad boxes. An animation in a display this size lasts between 15 and 30 seconds long, depending on the train speed.

Parsons Brinckerhoff Quade and Douglas, Submedia's engineering partner and MARTA both contributed to the ad box design. The ad

box and attachment system is safe, simple, and overdesigned for the tunnel environment. The design addresses all conditions considered in tunnel engineering and construction.

The outdoor environment is in many ways more harsh than tunnel conditions; wind, rain, snow, sleet, high winds and public access all are common in the urban outdoors. Submedia's fabrications build outdoor signs, and apply these same design standards to the fabrication of Submedia's ad boxes.

Safety and simplicity were the two major factors in the design. The box is structurally very strong and he attachment system used is a tunnel industry standard. The boxes are built with many redundant systems to safeguard against failure. Each box is fused protected, and each set of three boxes is ground fault interrupt protected. All electrical components of the ad box are off the shelf and UL listed, as is the box itself.

Operation and maintenance of the ad boxes was designed to fit into non revenue hours, but can be incorporated into 24 hour systems as well. Track time can be scheduled months in advance because the maintenance is regular and well known. In many cases, maintenance can be planned to coincide with regular maintenance schedules. Workers use standard high rail vehicles to access the boxes . Changing a single ad card takes less than one minute, or less than two hours to change cards in an entire installation. New ads are typically placed in the boxes every quarter. Bulbs are changed every two years, and ballasts every five.