

Thousands of commuters reach their destinations daily thanks to indoor and outdoor signs created by CTA using HP Latex Printing Technologies



At a glance

Industry: Sign & Display, signs

Business name: Chicago Transit Authority (CTA)

Headquarters: Chicago, Illinois, U.S.A.



Challenge

- Print all directional signage indicating alternative transportation in 36 hours, in time for Red Line shutdown, affecting 54 stations with nine closed completely, in Chicago.
- Deliver resistant and durable indoor and outdoor signage for a wide range of applications.
- Reduce the impact of printing on the environment and eliminate harmful gases from the work environment.

Solution

- Fast-drying HP Latex Inks with the HP Latex printer to create indoor and outdoor signage.
- HP Permanent Gloss Adhesive Vinyl for sandwich boards at shuttle bus stops.
- HP Premium Vivid Color Backlit film for illuminated maps.
- HP Dupont Tyvek and HP Latex Durable Frontlit Scrim Banner for construction boards outside stations.
- Oracal Orajet® Intermediate Removable Calendered Digital Media to cover existing directional signage.
- Optima Opti-Koat anti-graffiti polyester overlamine to protect signs from graffiti.

Results

- Printed and finished 1,350 ft² (411.48 m²) of signage in 36 hours - ready for weekend installation to meet critical Monday deadline.
- Achieved 30 percent faster production of high-quality signs, with accelerated finishing with fast-drying HP Latex Inks.
- Simplified work processes help to reduce the overall impact of printing compared to eco-solvent ink printing processes with the use of water-based HP Latex Inks, which require no special ventilation in the work environment.
- Delivered specialty applications, including indoor and outdoor durable output, thanks to the versatility of HP Latex Printing Technologies.

“HP Latex Printing Technologies allowed us to produce the indoor and outdoor signs that were critical to the success of the shutdown with a turnaround time that we could not have achieved before. We counted on its reliability and versatility to complete the job on time.”

– Victor Ramirez, graphics production coordinator, Chicago Transit Authority



Chicago Transit Authority (CTA) operates the second largest public transportation system in the United States, delivering quality, affordable transit services that link people, jobs and communities. As part of the ‘Building a New Chicago’ program, CTA decided to temporarily close the Dan Ryan branch of the Red Line for five months to rebuild the tracks and renovate the stations. The decision was a major concern due to the impact the shutdown would have on the city’s transport system. The Red Line provides a 24-hour train service and accounts for 30 to 40 percent of all CTA’s 750,000 customer trips. Its closure affected 54 stations, with nine stations closed completely.

Providing a number of alternative travel options to minimize the project’s impact was a major logistical challenge, as was ensuring that users were correctly informed and directed to alternate means of transportation at stations and shuttle service bus stops. The four-person graphics production team used HP Latex Printing Technologies to print 1,350 ft² (411.48 m²) of signage in 36 hours from the Wednesday to Friday prior to the shutdown, which took place on the following Monday. They installed all the Red Line information boards and signage over the weekend.

Extraordinary versatility of indoor and outdoor durable output

Victor Ramirez, graphics production coordinator at CTA, describes the application demands they had to satisfy for the project. “We had to deliver indoor and outdoor displays that would stand out from existing signage, with minimum negative space for graffiti, and be resistant and durable in an environment where intensive wear is expected,” Ramirez explains.

“In three days, we printed more than 1,350 ft² (411.48 m²) of the various media – about 100 feet (30.38 m) short of the length of the Willis Tower in downtown Chicago. We absolutely love our HP Latex printer! HP Latex Printing Technologies offers a wide range of materials to choose from depending on the indoor or outdoor application we need. The quality is literally amazing on all the materials, including vinyl materials we previously used on our eco-solvent ink printer,” he states.

He also lists the large number of applications they delivered. “For this project, route information on the sandwich boards at shuttle bus stations was printed on HP Permanent Gloss Adhesive Vinyl. These needed to be extremely resistant as they are outdoors and totally exposed to the environment on the sidewalk where users get on and off buses. We laminated them using Optima’s new Opti-Koat anti-graffiti polyester overlaminate. We covered the construction boarding outside the nine closed stations with 54 x 8 ft. (137.16 x 243.84 cm) information banners on HP Dupont Tyvek and HP Latex Durable Frontlit Scrim Banner. We printed 60 x 44 inch (152.4 x 111.76 cm) illuminated maps on HP Premium Vivid Color Backlit film and chose to use an Oracal vinyl (Oracal Orajet® Intermediate Removable Calendered Digital Media) to stick four hundred 11 x 28 inch (27.94 x 71.12 cm) labels over existing directional signage. We chose this adhesive vinyl because we were looking for a light media that would peel off easily,” Ramirez says.

Production 30 percent faster with HP Latex Printing Technologies

Ramirez believes that production is 30 percent faster using HP Latex Printing Technologies compared to the eco-solvent ink printer they had used previously. “We divided the job up and printed 12 feet (3.66 m) long sections with 75 percent ink coverage in about 28 minutes. We saved time because prints are dry straight off the printer, so we were able to cut and finish each section while the next was printing. This job would have taken us three times longer to complete on the eco-solvent ink printer. We used to wait up to 1.5 hours for vinyl prints to de-gas and dry, and even then they could be a little sticky to handle so the eco-solvent ink prints were at greater risk of scratching. The prints using HP Latex Inks are more resistant and last three years.”¹

Enhancing the quality of life for customers and employees

As an environmentally conscious entity, CTA declares that it is committed to enhancing the quality of life of its customers and employees through reduced regional emissions, improved energy efficiency, increased recycling and other best practices in resource conservation.^{3,4,5} Ramirez says his team are benefiting directly from CTA’s positive approach.

“It’s so much easier now that we do not have to manage eco-solvent ink printing processes in an enclosed space. Our eco-solvent ink printer had a special vent hood to reduce the fumes and odors. It required lengthy, regular manual maintenance procedures. With the HP Latex Inks we have no need for special ventilation.² HP Latex Inks are water-based and simplify the work processes. There are no interruptions in production for manual maintenance procedures, and we have never had to replace the printheads,” he says.

Faster, smoother, better – also thanks to HP Latex Printing Technologies

“Even though we knew about this closure for almost one year prior, there were last minute design changes in the wording. Our upper management was still deciding if the trains were going to stop at a particular station or share track with another line. This was decided literally in the last couple of days before the closures began,” says Ramirez.

Ramirez believes they would not have been able to complete the job successfully without HP Latex Printing Technologies. “Our HP Latex printer allowed us to produce the indoor and outdoor signs that were critical to the success of the shutdown with a turnaround time that we could not have achieved before. We counted on its reliability and versatility to complete the job on time,” Ramirez concludes.

The CTA project provides a faster, more comfortable and reliable service for Red Line riders. More than 45,600 commuters a day are managing to reach their destinations with minimal disruption thanks to the success of the temporary signs created by CTA’s graphics production team.

- 1) Durability comparison based on testing of representative eco-solvent inks including eco-sol Max inks on Avery SA vinyl for display permanence and scratch, rub/abrasion, and chemical resistance. HP image permanence and scratch, smudge, and water resistance estimates by HP Image Permanence Lab on a range of media including HP printing materials. See hp.com/go/supplies/printpermanence.
- 2) Special ventilation is not required to meet US OSHA requirements on occupational exposure to VOCs from HP Latex Inks. Special ventilation equipment installation is at the discretion of the customer – no specific HP recommendation is intended. Customers should consult state and local requirements and regulations.
- 3) HP media that can be recycled through commonly available recycling programs.
- 4) HP offers the HP Large format Media take-back program in North America and Europe through which most HP recyclable media can be returned, availability varies. For details visit hp.com/recycle. Aside from this program, recycling opportunities for these products are currently only available in limited areas. Customers should consult local recycling resources for recycling these products.
- 5) HP Recyclable paper may be recycled according to region-specific practices. Recyclable in consumer collection systems that accept mixed paper (may not be recyclable in your area). Check your local consumer collection system guidelines.

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