The Future of Mobility

By Kelsey Owens

CITIES ARE EVOLVING faster than ever before. Populations are getting denser, congestion is increasing, and new modes of transportation are being introduced, bringing tremendous opportunities and challenges. With the increasing rate of innovation, what will cities look like five, 10, or 20 years down the road?

Most city solutions have been focused on hardware and physical infrastructure, but with the growth of technology, the focus is shifting to software and tech solutions. A decade ago, U.S. cities began to implement mobile pay-for-parking apps to supplement parking meters and provide a digital way to pay. Now, some cities are removing meters altogether in favor of a mobile-only solution.

As the world becomes more digital, transportation leaders should consider changing their city infrastructure at a digital level. To determine if a parking space is full, cities can develop predictive availability models based on historical data and trends. Instead of imposing scooter caps or medallion-like permits, cities can implement a digital solution to manage scooter distribution across their city. A solid digital foundation can help create a more connected mobility ecosystem. This allows cities to more flexibly adopt new innovations and gives them control over what technologies are implemented to best serve citizens' needs.

The future is unknown, but that can't stop parking and transportation leaders from taking action now. To prepare for the future, cities need to create a digital transportation infrastructure, focus on the customer journey, and develop dynamic pricing models to influence behaviors in order to create fair and equitable solutions.

Building a Digital Infrastructure

Since the introduction of cars, cities have adapted their physical infrastructure to support these vehicles. Roads, sidewalks, curbs, stop signs, traffic lights, medians, crosswalks, street signs, and parking meters all require physical changes to improve the way vehicles and people move around a city.

User-oriented Transportation Solutions

With many possibilities for getting around, citizens can use multiple modes of transportation to get from point A to point B, but they have to manage each mode separately. Agencies are recognizing this trend and shifting from mode-oriented to user-oriented services.

One example is Miami-Dade's Department of Transportation and Public Works in Florida, which was created to embrace mobility management and improve the transportation experience for citizens. More cities are considering a similar approach as they understand that when parking, transit, and micromobility are managed collectively, leaders can make better decisions for positive city outcomes.

We're also seeing a focus on the user journey for first- and last-mile solutions. In 2018, the Charlotte Area Transit System (CATS) began a partnership with Lyft to offer subsidized rides for users of the CATSPass app. Passengers who originate or terminate a trip at specific locations receive a contribution toward their Lyft fares. With this partnership, CATS increased public transit use by providing options to use multiple forms of transportation in a single journey.

Influencing Behaviors through Pricing

Dynamic, progressive, and congestion pricing are hot topics in the mobility industry. Some agencies have implemented pricing models, such as the San Francisco Bay Bridge in California, which charges a higher toll during rush hour to reduce bridge traffic, and the Long Island Rail Road in New York, which charges higher fares at peak times. Some cities, such as Boston, Mass., and Chicago, Ill., have tried dynamic pricing models for on-street parking.
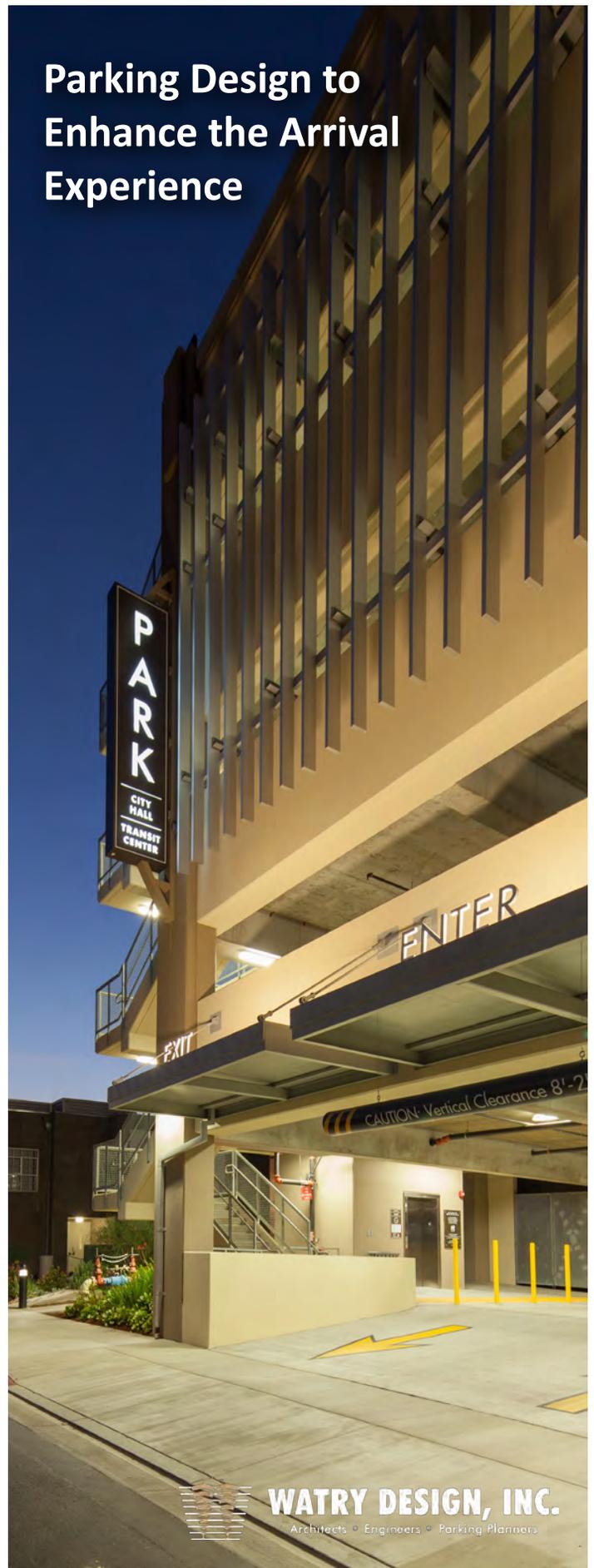
Price can be a motivating factor for consumers, influencing behaviors to achieve desired outcomes. By raising parking prices in a downtown area and reducing them outside the city center, people are more inclined to park farther away and find a secondary method of transportation to get to their final destinations. This can lessen circling for parking—a leading cause of city congestion.

The idea of dynamic pricing is going beyond tolls and car parking and is being applied to micro-mobility. The cities of Charlotte, N.C.; Detroit, Mich.; and Omaha, Neb., are in the midst of a six-month pilot program to test pricing models for scooter parking to make them more accessible and decrease sidewalk congestion.

Our industry is at a critical point, with unlimited opportunities, but many unknowns lie ahead. Transportation leaders need to think proactively about how to create systems today that can be adapted easily as new modes and challenges arise. ◆

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Parking Design to Enhance the Arrival Experience