



*Robotic Parking Systems, Inc.*

— ALWAYS AHEAD —

**THE NEW “PAR(K)ADIGM”**



LARGEST AUTOMATED  
PARKING FACILITY



## LARGEST AUTOMATIC PARKING WORLDWIDE 2,300 SPACE FACILITY AL JAHRA COURT COMPLEX

### WHY WAS IT BUILT?

- Safety and security
- Environmentally sensitive
- Restricted land use
- Premium valet service
- Shortest walk to court
- No “searching for my car”
- Cost effective



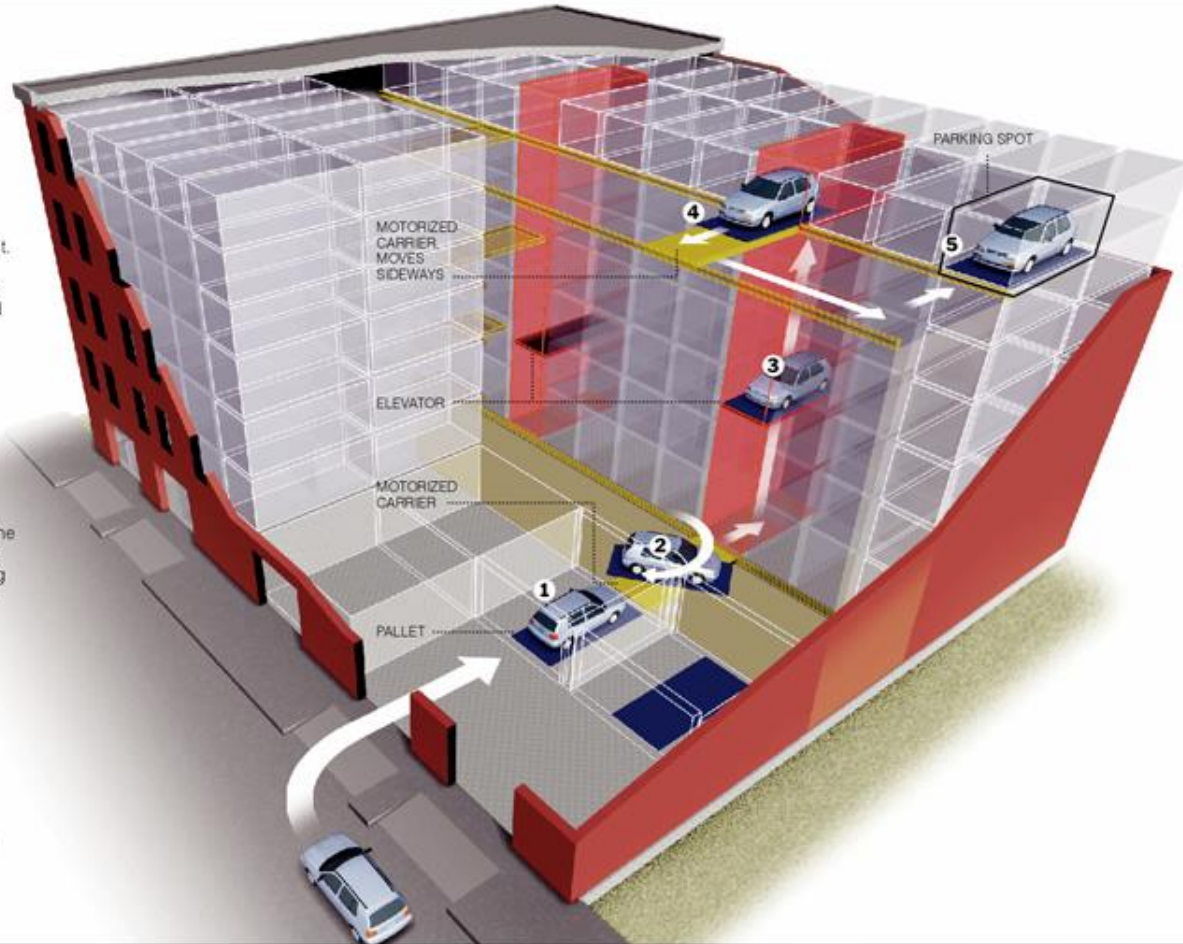
# ROBOTIC PARKING SYSTEMS

## HOW DOES IT WORK

### Robotic Chauffeurs

Cars parked at a robotic garage in Hoboken ride to their computer assigned parking spaces atop a pallet. The pallet is moved by motorized carrier on and off an elevator and then on and off a platform that moves laterally to align with the designated space.

- 1** The customer drives into the garage and parks on a steel pallet.
- 2** The computer-controlled carrier pulls the pallet and the car and rotates both by 180 degrees, so the car is facing forward when it is retrieved.
- 3** One of two elevators takes the pallet and car to an upper level.
- 4** The pallet is transferred by another carrier that moves it laterally to an open space.
- 5** The car and its pallet are rolled to the designated parking spot.



## CHANGING THE DYNAMICS OF LAND USE I

CUTS REAL ESTATE (LAND) COST IN HALF PLUS CREATES NEW LAND OUT OF NOTHING.

Existing prime downtown location:

- 3 concrete garages with 1,000 spaces each.
- Total parking inventory is 3,000 spaces.



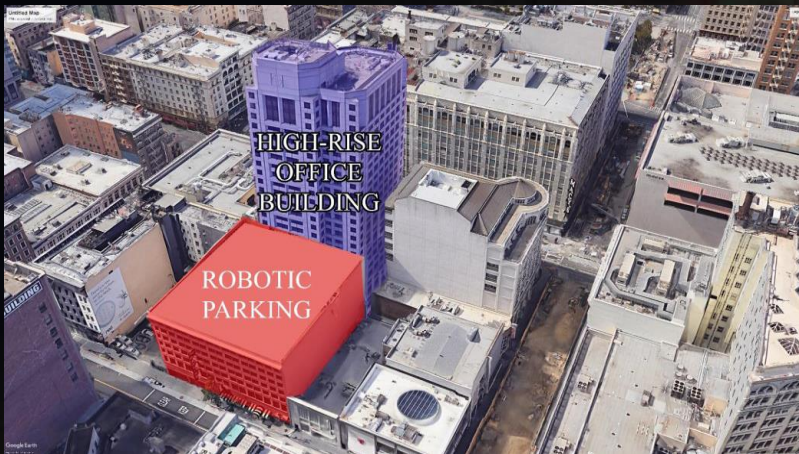
Substitute existing 3 garages with one robotic parking 3,000 space system:

- Create a green park.
- Plus, 400 room hotel, or equivalent 150,000 GFA development.
- **Gain 4.5 acres of land.**



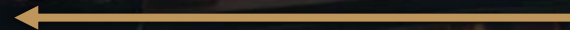
## CHANGING THE DYNAMICS OF LAND USE II

Existing concrete garage with 9 levels for 507 spaces.



Substitute with one robotic parking garage for 750 spaces.

Plus, create a new office building on same footprint or a park.



## TOP SAFETY & SECURITY PLUS CONVENIENCE



**NO SCRATCHES / DENTS**



**NO ASSAULTS / SAFE**



**NO LONG SEARCH/WALKS**



**NO PARKING LOT ACCIDENTS**



**NO VANDALS / THEFT**



# THE REAL COST OF PARKING: COMPLETE PICTURE

## 750 PARKING SPACES WITH PEAK TRAFFIC OF 240 CPH (CARS PER HOUR)



Disclaimer: This cost assumption may differ based on the geographical location.

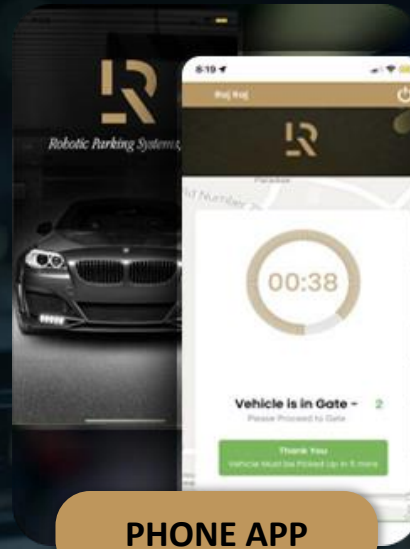


## KEY DETAIL: TOUCHLESS PARKING IN A POST PANDEMIC WORLD

- Another bonus of automated parking is the premium valet experience which offers a contact-less parking process to accommodate for post-pandemic needs.
- When the driver and the passengers have left the entry area (terminal), the driver initiates the parking process with a touchless near-field communication (NFC) card, FOB, or with an app on a smartphone. Instead of passing the keys to a valet, patrons simply use an app and keep their keys.
- In simple terms, automated parking enhances the vehicle parking and retrieval experience—elevating it above the level of valet parking.



FOB



PHONE APP



NFC CHIP CARD



## INTEGRATED INTO EMERGING TECHNOLOGIES

CUT DOWN ON ENVIRONMENTAL IMPACT: DIGITALIZATION REDUCES CONGESTION /  
ENABLES RESERVATIONS, FLEET & RIDE SHARING, SERVICES WITH EV CHARGING

- **Connectivity:** Through Complicity® software from GE Automation, Robotic Parking System is connected and can receive and share information on an open network.
- **Autonomous Driving:** We developed a partnership with Bosch to facilitate the parking of “autonomous driving cars.”
- **Sharing and Services:** Communications exist to handle car sharing, fleets and servicing cars.
- **Electrification:** Designed to include automatic electric car charging stations. The owner just plugs the cable in our entry terminal to the car.
- **Bonus:** With a Robotic Parking garage a Digital Twin is already included.



(1) CASE strategy as defined by Mercedes-Benz at the Paris Automobile Show.



## ROBOTIC PARKING – MEANINGFUL ENVIRONMENTAL IMPACT

### TOXIC EMISSIONS ELIMINATION FOR ONE 1,000 SPACE GARAGE PER YEAR:

**CARBON DIOXIDE** | 275,422 lbs

**CARBON MONOXIDE** | 15,463 lbs

**GASOLINE** | 13,750 gal

**TIRE DUST** | 9,800 lbs

**HCO** | 2,001 lbs

**NO<sub>x</sub>** | 103 lbs

**BRAKE DUST** | 100 lbs



### RESULTING IN:

- Drastic carbon footprint reduction.
- Gain up to 17 LEED points.
- Sustainable building –reusable.
- Clean environment.
- Parkers no longer inhale these fumes and particles.



# CREATING A SENSE OF ARRIVAL

## ARRIVAL & DEPARTURE PLAZA



THE **FIRST** AND **LAST** IMPRESSION COUNTS.





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