Robotic Parking Systems, Inc.

ALWAYS AHEAD



THE FUTURE OF PARKING

LARGEST AUTOMATED PARKING FACILITY

ROBOTIC PARKING SYSTEMS
COMPANY PROFILE

Proven Experience & Global Leadership

- 30+ Years in Automated Parking – Industry pioneer.
- 7,810 Spaces Worldwide – Built across multiple continents
- 250+ Years Combined Engineering Expertise – Backed by deep technical knowledge
- Millions of Parking Transactions – Reliable, tested, and trusted daily

Innovation & Firsts

- First in the U.S. & Middle East – Delivered landmark automated systems
- Guinness World Record Holder – Largest automated facility (twice)
- Breakthrough Robotics – First with multi-axis, simultaneous moving robots
- Industry Leading Highest Throughput Capacity in cars/hour

Standards & Certifications

- ISO 9001:2015 Certified – Commitment to quality
- UL Compliance for Control Panels – Safe electrical systems at every level
- Shaping Regulations – Helped develop NFPA 88A code for USA and UAE Civil Defense code

FULLY AUTOMATED PARKING SYSTEM



FULLY-AUTOMATED PARKING SYSTEM

Fully automated systems are unoccupied vehicle storage and retrieval solutions that transport vehicles in three-axis operation. These garages can be configured from approximately 100 spaces to several thousand, with peak throughput capacity achieved by allocating equipment based on project demand.
Fully automated parking systems provide a highly efficient, high-density solution, typically reducing parking area requirements by 50% or more.

ADA-compliant access, flexible façade design and accelerated construction schedules further enhance architectural integration and project feasibility.

Benefits Include:

- Minimum 50% space savings & improved ROI
- Reduced congestion, enhanced safety & security
- Lower liability exposure
- Reduced emissions, sustainability & LEED alignment
- User convenience with emerging technology integration
- Ideal for adaptive reuse applications

Types of Fully-Automated Parking:

- RPS1000
- RPS100
- RPS200

Maximum Vehicle Capacity:

- Length: 19 ft (5.8 m)
- Width: 7 ft 4 in (2.24m)
- Height: Customizable
- Weight: 6,600 lbs. (3,000 kg)

FULLY-AUTOMATED PARKING SYSTEM

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.

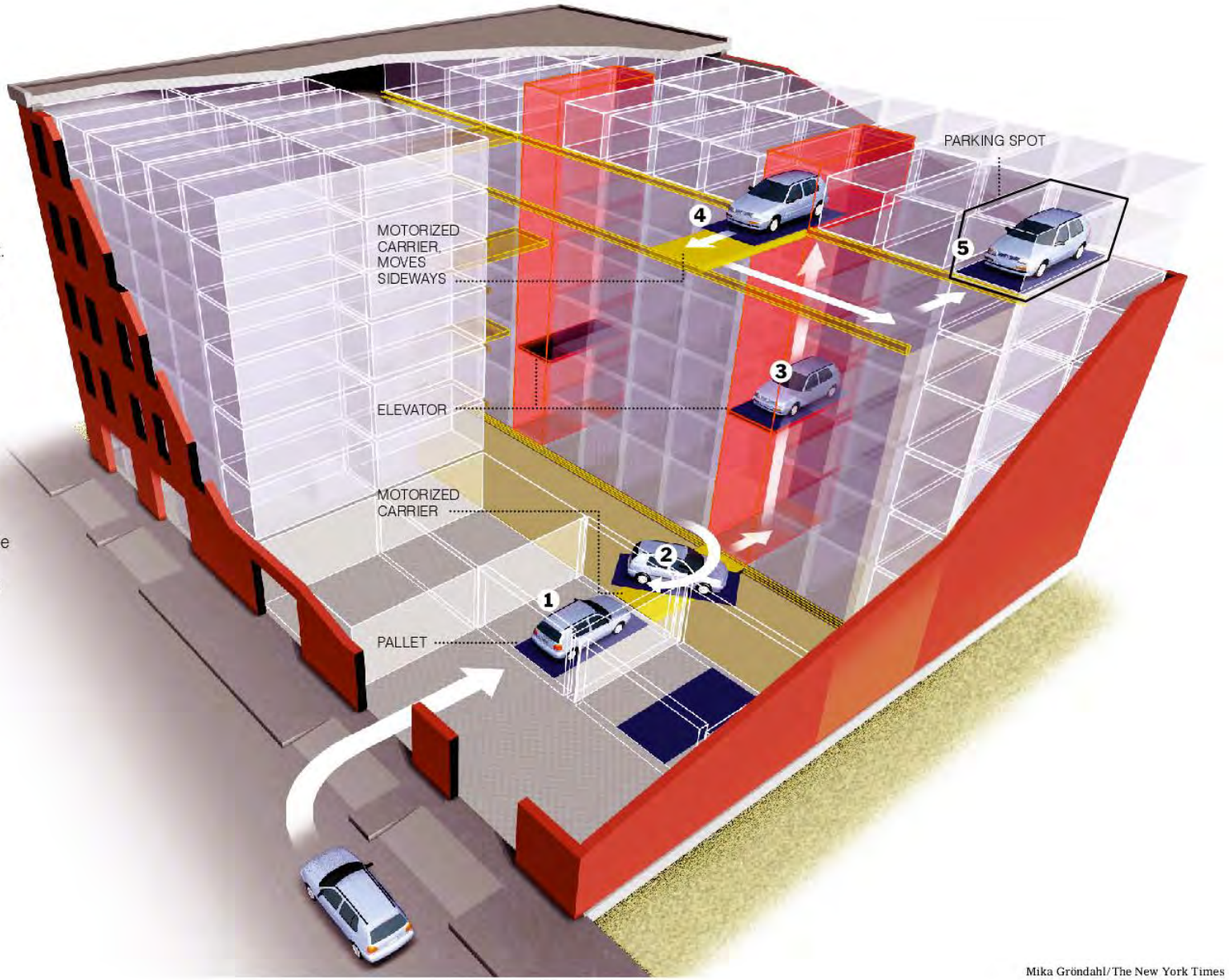
1 The customer drives into the garage and parks on a steel pallet.

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.



Source: Robotic Parking

Mika Gröndahl/The New York Times

SMART LAND USE

GAIN 50% MORE SPACE

Existing garage design at prime downtown location:

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



Transformative Development Opportunity

- Replace 3 garages with **one 3,000-space robotic parking system**
- Unlock space to **create a new green park**
- Enable construction of a **400-room hotel** (or **150,000 sq. ft. development**)
- **Reclaim 4.5 acres of valuable land** for community and repurpose options



INCREASED PARKING DENSITY

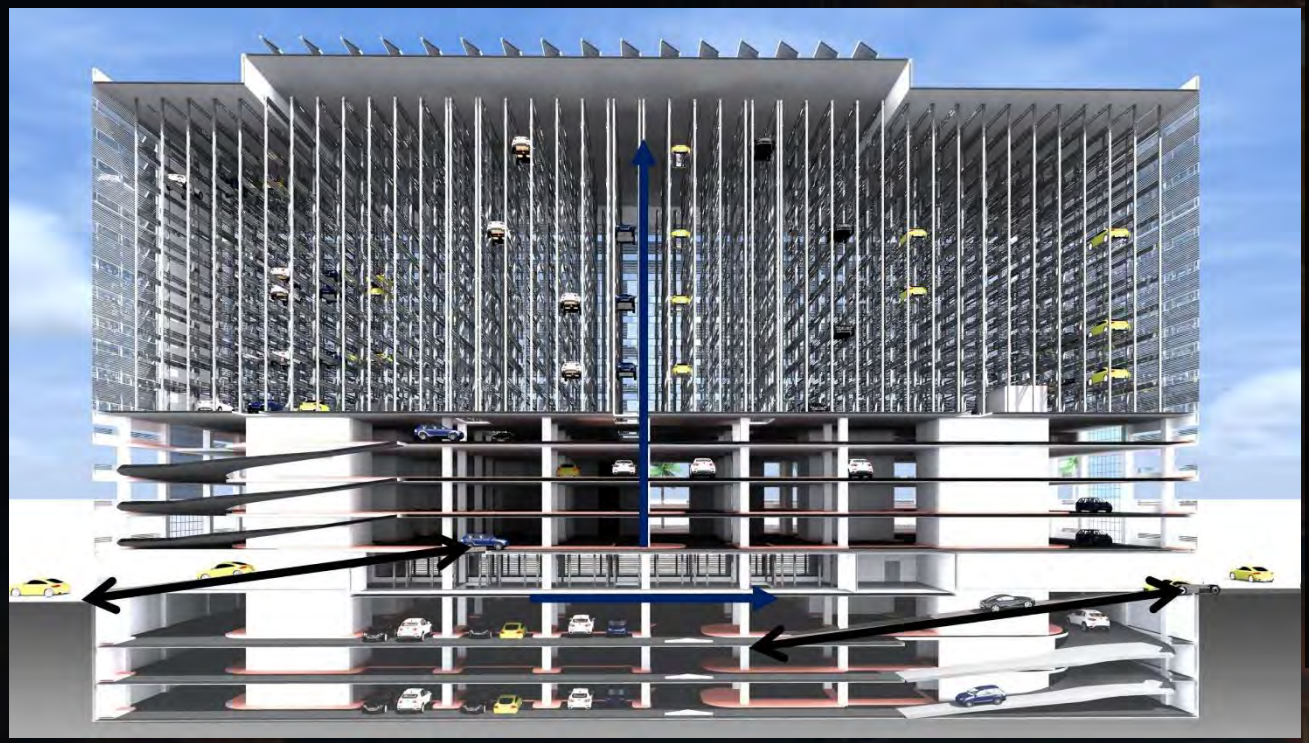
TRIPLE THE NUMBER OF PARKING SPACES

Limitations of Conventional Parking Garages

- On average, drivers dislike driving on ramps more than **5–6 levels**
- **Local zoning codes** can restrict building height and use
- Ramps and driveways consume valuable space.

Advantages of Robotic Parking

- Rack structure can be built for up to 15 parking levels without any space limitation
- Often classified as a **one-story structure** under zoning rules for permitting purposes
- High density parking systems eliminate ramps & driveways replacing them with terminals at grade level for convenience.



The illustration from an executed project shows the dramatic parking density gained by utilizing an automated system.

The space efficiency with robotic parking is more than triple (3.38) compared to a concrete ramp garage portion.

Concrete Ramp Parking = 684 spaces
Robotic Parking Systems = 2314 spaces

CONTACTLESS CAR STORAGE

PALLET BASED SYSTEMS & THEIR ADVANTAGES

Benefits

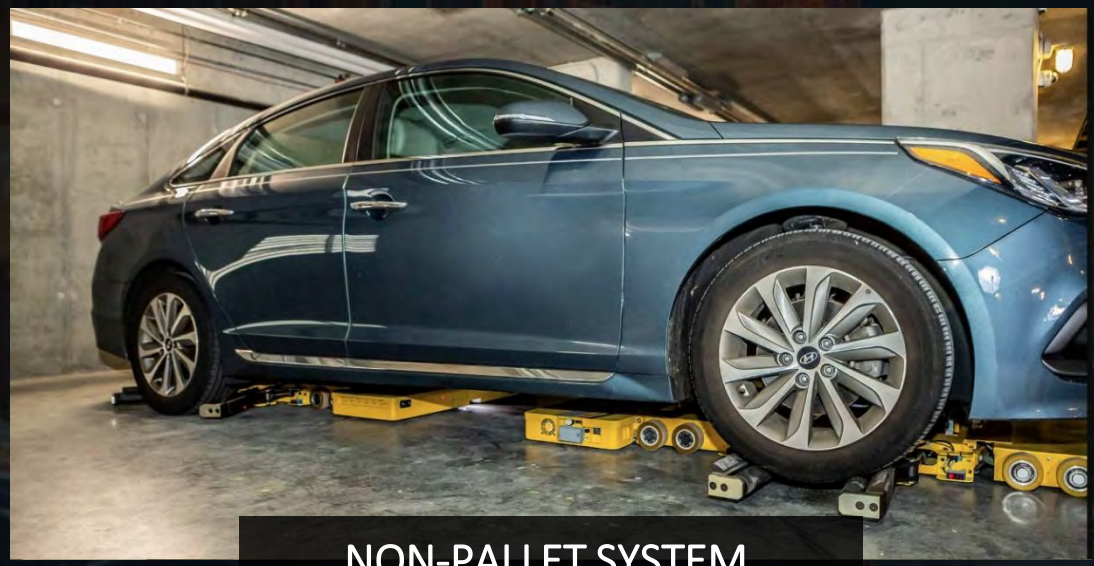
- No damage to the undercarriage of low-clearance or modified vehicles.
- No effect on EVs which have a low clearance to accommodate a battery pack.
- No machinery that may damage the tires of the vehicles.

Impact

- No Scratches, dents, ripped-off components on the car undercarriage.
- No **costly damage claims**.
- For these reasons, pallet systems are highly recommended.



PALLET SYSTEM



NON-PALLET SYSTEM

VEHICLE SIZING

MAX WIDTH OF CARS: UP TO 88” (2.235m)

MAX LENGTH OF CARS: UP TO 228” (5.792m)

MAX CURB WEIGHT: UP TO 6,600 lbs.

LOW GROUND CLEARANCE: NO LIMITS



GMC-YUKON



LAMBORGHINI



CHEVY SUBURBAN



FORD F-150 (REG CAB)



ESCALADE



FORD EXPEDITION



MODEL S



CADILLAC CTS V



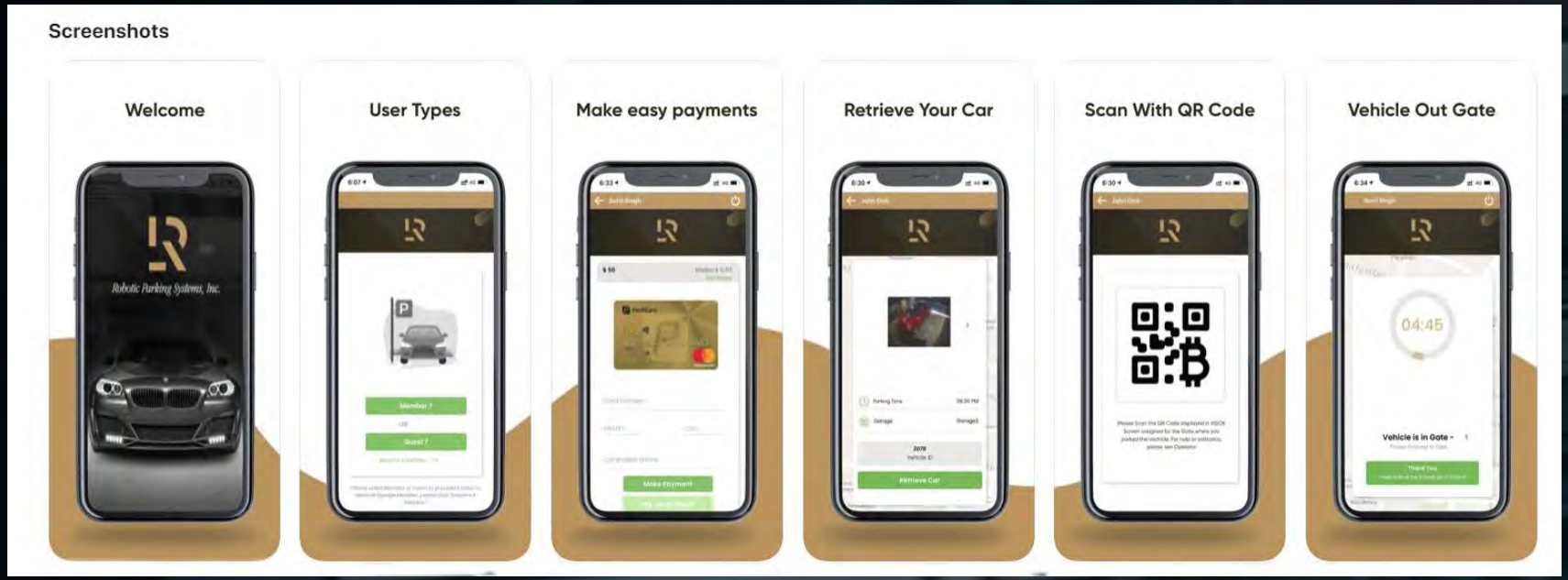
CORVETTE

USER CONVENIENCE

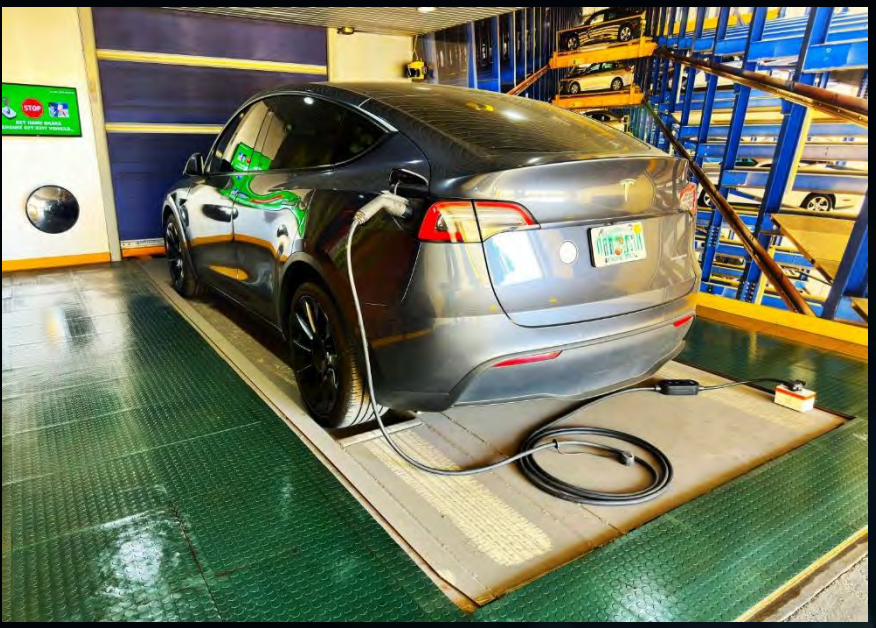
Premium Valet Experience — Contactless & Elevated

- Touchless parking with NFC (**near-field communication)** card, FOB, or app on a smartphone
- No valet handoff — patrons keep their keys and no tipping
- Safer, faster, and more convenient than traditional valet

Automated parking goes beyond efficiency—it delivers a premium experience designed for modern expectations. After passengers exit, the driver simply initiates parking using a touchless device or app. The fully contactless process enhances convenience and security. In short, it elevates the parking and retrieval experience.



EV CHARGING – AUTOMATED LEVEL 2





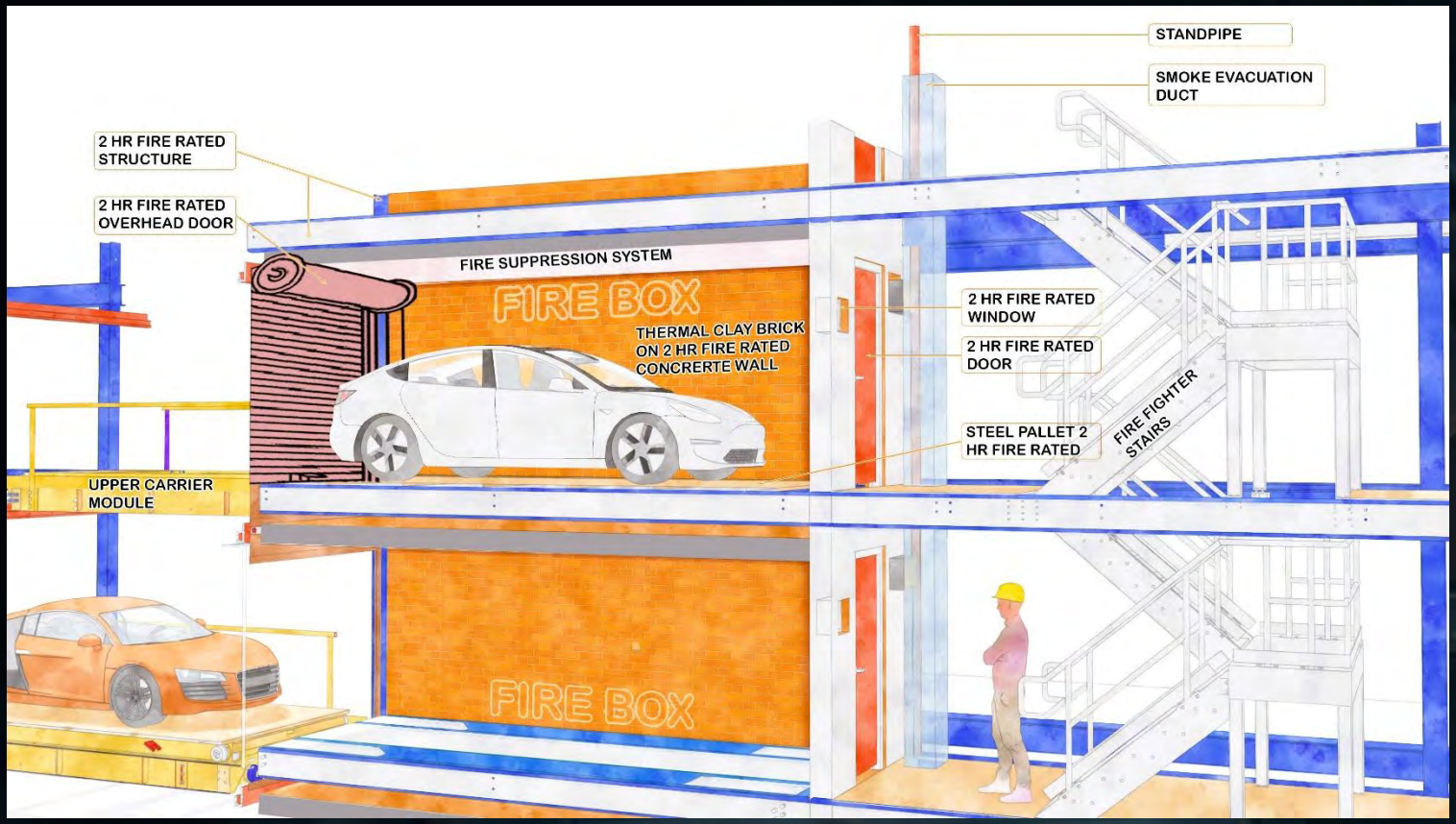
- CONVENIENCE
- DOUBLE THE UTILIZATION RATE
- HALF THE COST

EV drivers using traditional parking chargers must constantly monitor availability, charging time, disconnect and move their cars once charging is complete—sometimes even facing tickets or fines if they remain in the space too long. This creates inconvenience and forces drivers to interrupt their schedules.

With Robotic Parking, vehicles can safely charge while stored, without the pressure of availability, time limits or the need to return mid-day. Drivers are free to focus on their daily activities, knowing their cars will be fully charged and ready when they return.

FIRE MITIGATION

THE FIRE BOX: REVOLUTIONARY SOLUTION



Robotic Parking Systems' FIRE BOX (1) represents a groundbreaking advancement in addressing the risks associated with EV battery fires in parking structures.

Unlike traditional firefighting methods, the FIRE BOX aims to prevent a fire from escalating (spreading to other vehicles) by swiftly relocating the vehicle to a safe, controlled environment for fire mitigation.

(1) Robotic FIRE BOX patent pending 2025.

GREEN GARAGE

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

HCO | 2,001 lbs.

NOx | 1,031 lbs.

TIRE DUST | 96 lbs.

BRAKE DUST | 17 lbs.

- Significant carbon footprint reduction
- Earn up to 17 LEED points
- Sustainable, reusable building design
- Cleaner, healthier environment
- No exposure to harmful fumes or particles

THE REAL COST OF PARKING: COMPLETE PICTURE

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



In addition, a Robotic Parking Garage provides for an about 13% p.a. depreciation

Land	Structure	Facade & Roof	EV Stations	Smart Parking
Space allocated for the parking garage.	Cost of support structure	Blend the facade to the architectural theme. First impression matters.	Charging stations for electric vehicles.	Wayfinding, revenue & access control, reservation system, mobile app, security, valet

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

3RD PARTY VERIFICATION

Peak Traffic Throughput Capacity is defined as the total number of cars per hour a system can handle either an inbound/outbound or a combination of both.

At Robotic Parking Systems, Inc., every project this capacity is independently verified by a third party and certified to ensure full compliance with agreed contractual performance specifications.

In real-world operations, throughput is far more critical than a single retrieval time, as it directly determines how efficiently the system can manage with multitude of patrons operating the system at the same time.



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TÜV MIDDLE EAST W.L.L

TÜV NORD

This document is issued as per TÜV Middle East procedures in accordance with the requirements			
	TÜV Middle East	:	KUWAIT
	Report No.	:	RPSK/RP/280817/01GV
	Work Order No.	:	WO-ISD-KWT-009936
	Inspection Date	:	28th AUGUST 2017
	Place of Inspection	:	AL JAHARA COURT COMPLEX

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INSPECTION REPORT

Name and Address of the Owner	:	**Robotic Parking Systems inc.. Al Jahara Court Complex,Basement. P.O.Box 21403, safat 13075 Al Jahara, State of Kuwait.**
Type of Inspection	:	WITNESSING OF THROUGHPUT (VISUAL AND FUNCTIONAL INSPECTION)
Location	:	AL JAHARA COURT COMPLEX
Equipment	:	Robotic Parking System
Name of Manufacturer	:	Robotic parking system inc
Average retrieval time for single vehicle	:	177 Seconds
Throughput capacity	:	425 cars/hour (In bound and out bound traffic).

Note: Witnessing carried out with empty car pallets only.

Inspection Carried Out:

The witnessing of through put /visual inspection and functional test has been carried out on the above Robotic system and it is safe to operate for its intended use within the design limits specified, provided there is continuous maintenance applied.

Inspection Results:

The above Robotic system has been visually inspected and functionally tested, found satisfactory at the time of inspection.

The report become invalid if any alteration made to the above mentioned system.

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FULLY AUTOMATED PROJECTS



Government

12 levels

2314 spaces

425 cars/hr

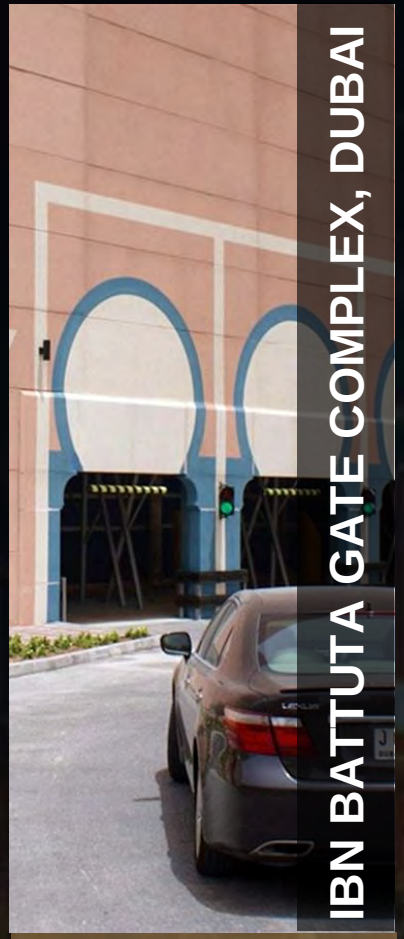


Residential

7 levels

314 spaces

122 cars/hr



Office Building

7 levels

765 spaces

280-300 cars/hr

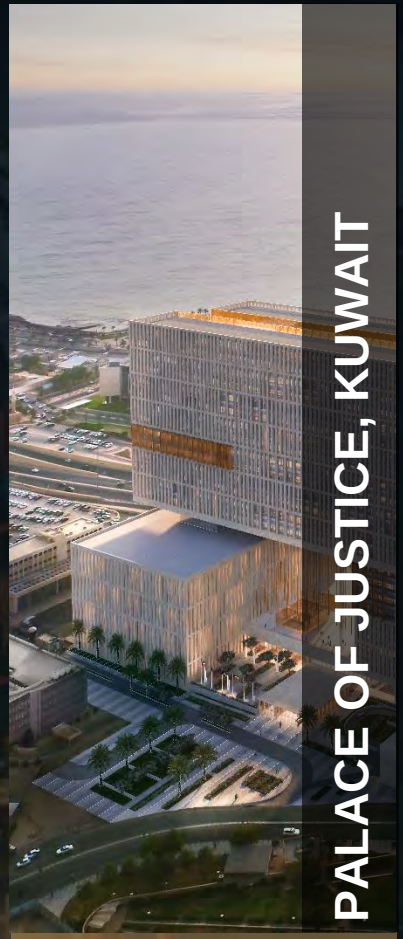


Mixed Use

9 levels

1194 spaces

340-360 cars/hr



In progress

18 levels

2433 spaces

720 cars/hr

SEMI-AUTOMATED PARKING SYSTEM



SEMI-AUTOMATED PARKING SYSTEM

Semi-automated parking systems serve projects from 5 to 250 vehicles, offering a flexible, space-efficient solution for residential, commercial, mixed-use, healthcare, hospitality, and urban infill developments. By eliminating ramps and excess drive aisles, they reduce wasted space while maintaining simple, user-friendly operation. Vehicles are positioned on pallets or platforms, with mechanical horizontal and vertical movement providing up to 50% space savings compared to conventional parking.

Designed for both new construction and retrofit applications (minimum clear height of 13 feet), these systems can provide direct individual access to each space, limiting the need for valet assistance. Configurations range from two to 20 tiers, with pit or non-pit options, tandem layouts, and EV charging integration.

Standard Safety Features Include:

- Structural steel pallets galvanized or painted finish
- Lifts powered by high-strength chains or wire ropes
- Safety device and mechanical locking mechanisms
- PLC-based control system ensuring reliable and simple operation
- Key FOB/RFID card access with remote clicker
- Safety Gates depending on system configuration
- Power: 3P supply, 380–480 V, 50/60 Hz (configurable)
- EV Charging with Level 2 capability
- Max Retrieval time: 120-150 seconds.
- Audio-visual movement alerts
- Noise Level: ≤ 60 dB(A)

Types of Semi-Automated Parking:

- Stacker
- Carousel
- Tower
- Puzzle

Maximum Vehicle Capacity:

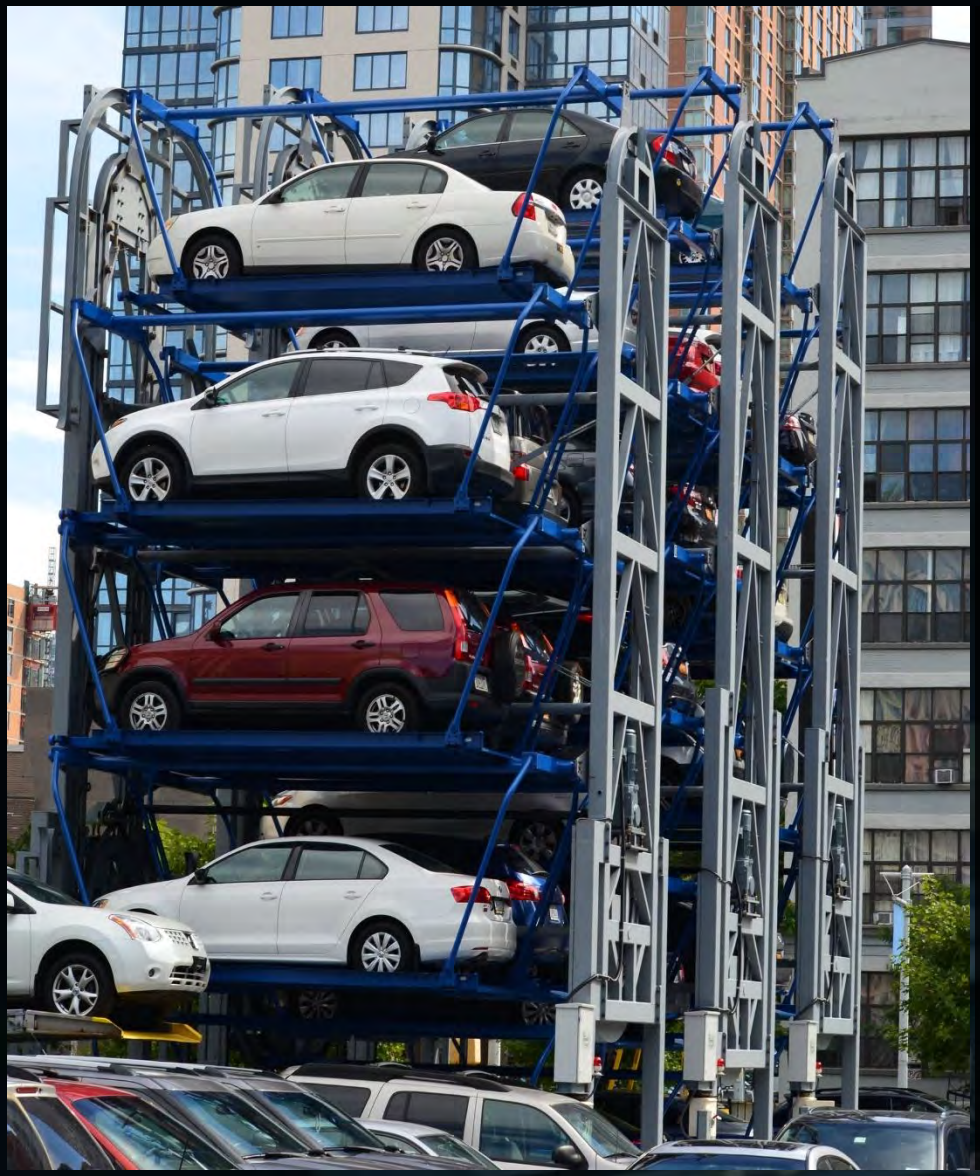
- Length: 16.4’–19’ (5.0–5.8 m)
- Width: 6’–7.33’ (1.8–2.2 m)
- Height: Up to 6.88’ (2.1 m)
- Maximum Vehicle Weight: 6,050 lbs. (2,750 kg)

STACKER



- Space-efficient solution that increases parking capacity by vertically stacking vehicles, allowing two cars to occupy the footprint of a single parking space.
- Manually operated platforms move vehicles up and down, typically requiring valet personnel to reposition cars when the lower vehicle needs to be accessed.
- Well, suited for dense parking areas and urban sites where maximizing available space is important.
- Ideal for retrofit applications in existing buildings and parking garages, requiring minimal structural modifications.
- Low headroom requirement, enabling two vehicles to be parked vertically while efficiently utilizing limited vertical space.
- Typically used for facilities with fewer than 100 parking spaces, where demand is moderate and full automation is not required.
- Commonly installed in apartment buildings, small commercial properties, and developments with lower peak parking demand.

CAROUSEL



- **Space-Efficient Vertical Parking** – A vertically rotating parking system designed for sites with very limited ground space, maximizing parking capacity within a small footprint.
- **Continuous Carousel Operation** – Vehicles are parked on platforms that rotate in a continuous carousel motion, automatically bringing the selected vehicle to the ground-level entry position for easy retrieval.
- **Compact Capacity Range** – Typically accommodates 8 to 20 vehicles per unit, making it an efficient solution for small to mid-size parking requirements.
- **Eliminates Ramps and Drive Aisles** – By stacking vehicles vertically, the system removes the need for traditional ramps and circulation areas, significantly reducing the overall space required for parking.
- **Simple and User-Friendly Operation** – Designed for straightforward operation with minimal user interaction, ensuring quick parking and retrieval.
- **Ideal for Space-Constrained Projects** – Well suited for urban infill developments, residential buildings, small commercial properties, and retrofit installations where maximizing available land area is critical.

TOWER

- **High-Density Vertical Parking** – Provides a compact vertical parking solution that maximizes vehicle capacity within a very small building footprint.
- **Pallet-Based Vehicle Handling** – Vehicles are placed on pallets and automatically lifted and transferred to available parking spaces, eliminating the need for ramps and large drive aisles.
- **Tall Vertical Configuration** – Systems can rise up to 20–25 levels, making them suitable for projects where vertical development is required.
- **Large Capacity per Tower** – Each tower can typically accommodate 50 to 100 vehicles, depending on configuration and site conditions.
- **Expandable Layout Design** – Multiple rows and multiple entry terminals can be incorporated to increase parking capacity and improve vehicle throughput.
- **Flexible and Scalable Solution** – Well suited for residential, commercial, mixed-use developments, and dense urban projects where maximizing land utilization is critical.



PUZZLE PARKING SYSTEM – 2 TO 7 LEVELS





- **High-Density Space Optimization** – Maximizes parking capacity within limited building footprints by eliminating ramps and drive aisles, significantly reducing overall land usage and improving project efficiency.
- **Smooth and Stable Vertical Movement** – A robust four-point suspension direct drive mechanism ensures balanced lifting, smooth operation, and safe vertical vehicle transfer across parking levels.
- **Photoelectric Safety Sensors** – Intelligent sensors continuously monitor the system area and automatically stop operation if a person or obstacle is detected, ensuring safe interaction with the equipment.
- **Emergency Stop Protection** – Strategically located emergency stop pushbuttons allow immediate system shutdown to prevent potential accidents and enhance user safety.
- **Durable Structural Design** – The system is constructed from high-strength steel with full internal and external hot-dip galvanization for corrosion resistance and long-term durability.
- Electrical systems utilize internationally recognized, high-quality brand components for reliable performance.

SEMI-AUTOMATED PROJECTS

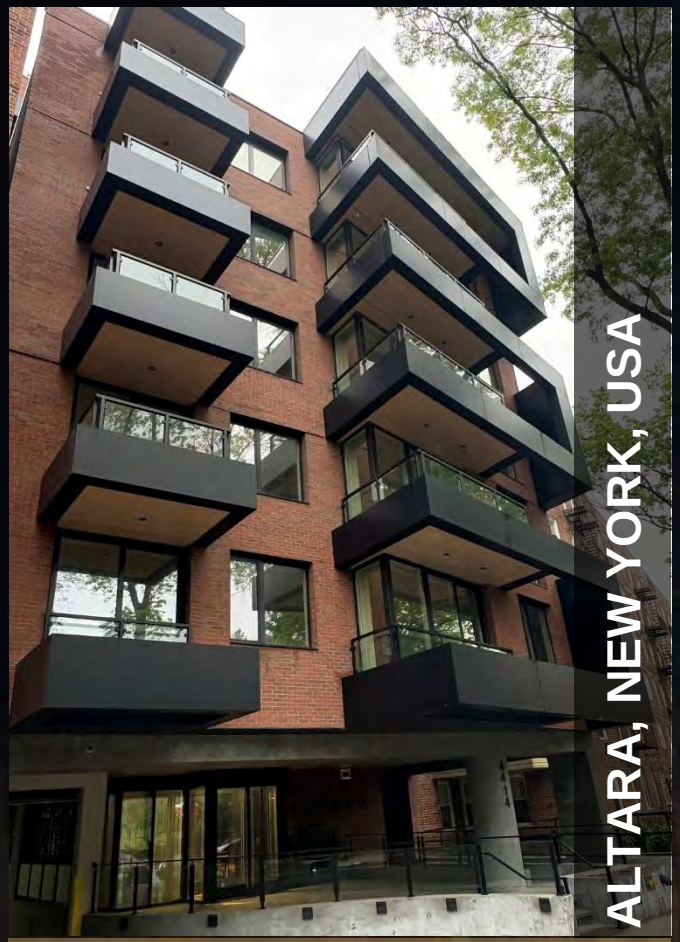


HENLEY PLACE, OREGON, USA

Residential

2 levels

104 spaces



ALTARA, NEW YORK, USA

Residential

3 levels

20 spaces

5 EV charges



VICTORY , CALIFORNIA, USA

Residential

5 levels

41 spaces

8 EV charges

Robotic Parking Systems, Inc.

THE FIRST AND LAST IMPRESSION COUNTS

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