



Planning Commission Report

Meeting Date: March 12, 2015

Subject: Automated Parking

Recommendation: Discuss the development of a draft ordinance to allow automated parking to fulfill minimum parking requirements in the City.

REPORT SUMMARY

In October, 2014 the City Council directed staff to move forward with several parking related efforts that were contemplated in the in-lieu parking study completed by the Community Development Department. This included preparation of a draft ordinance that would allow automated parking to fulfill minimum parking requirements for development in the City.

BACKGROUND

Parking Regulations in Beverly Hills

Currently, parking spaces provided in automated parking facilities cannot count toward code required parking in the City. Beverly Hills Municipal Code (BHMC) Section 10-3-100 and the City's "minimum parking standards" guide govern the standards for parking spaces that may be used to fulfill requirements for parking. The "minimum parking standards" guidelines document outlines specific dimensions, acceptable slopes, and other regulations related to the provision of parking. Notably, it does not define rules or regulations for automated parking spaces, and thus, it has been interpreted that automated parking is not allowed to be used to fulfill minimum parking requirements in the City.

Automated Parking Discussions

Automated parking has been discussed informally by the Planning Commission and City Council several times over the past few years. On March 28, 2013, the Commission discussed the possibility of writing a letter to the City Council to request that the Council add development of an automated parking ordinance to the Community Development Department Work Plan. The Planning Commission formed a subcommittee to work with staff to draft a letter reflecting that a majority of the Planning Commission supported a request to the City Council to address automated parking. The letter was completed in July, 2013.

Most recently, automated parking was discussed as part of the City's study on the expansion of the in-lieu parking program. At its meeting on October 21, 2014, the City Council directed staff to move

forward with several policy efforts related to the provision of parking and parking management, including an ordinance to allow automated parking spaces to count as required parking.

Automated Parking Basics

A fully automated parking facility (also referred to as robotic or mechanical parking) uses sensors, cameras and motorized lifts controlled by a computer system to shuttle vehicles from an arrival/departure area to a storage area. In the arrival area, the user exits the car, obtains a ticket, and the system uses sensors to determine the size and weight of the vehicle that has been parked. When the user is ready to retrieve the vehicle, they present the ticket in the arrival station and the computerized system locates the car and shuttles it back to the patron. Sometimes robotic or mechanical parking refers to a parking system that is semi-automated. This can include systems that use elevators or hydraulic lifts to lower or lift cars so they can be stacked. Semi-automated parking systems require an operator to operate the lifts or elevators.

The technology used in automated facilities is similar to that used in warehouses and assembly lines. Various types of mechanical parking facilities, which used freight elevators, have been used in the United States since the mid-20th century. There are more than 500 automated parking facilities in Europe and more than one million parking spaces in automated facilities in Asia; however, automated parking is significantly less popular in the United States.

Automated Parking in Nearby Communities

West Hollywood

The City of West Hollywood is currently constructing a 200 space public parking garage at its City Hall. The City reports that the footprint for the automated garage is 40 percent smaller than a conventional garage, which allowed the City to provide larger setbacks from adjoining neighborhoods and streets. In total, the project is 54,500 square feet. A standard garage would have required 76,000 square feet to provide the same number of spaces. The City also estimates that the structure cost one million dollars less than a standard garage (the total cost was \$10,600,000).¹

Los Angeles

The City of Los Angeles allows applicants to use automated parking to fulfill parking requirements. There are several projects that have been built in Los Angeles including a 15-car fully automated facility for an 8-unit apartment located at 14309 west Burbank Avenue and a 17-car facility for a 60-unit apartment building in Chinatown.

Santa Monica

There is one automated parking facility in the City of Santa Monica, located at the UCLA Santa Monica Outpatient Surgery Center. This facility is LEED Gold Certified and was the first fully automated facility on the West Coast (it opened in 2012). The facility did experience software issues involving the two

¹ <http://www.weho.org/city-hall/innovation-and-strategic-initiatives/25th-anniversary-capital-project/city-hall-automated-garage-and-community-plaza-project/commonly-asked->

robotic arms that move and store vehicles in the garage when it first opened. These issues required reworking of the software program that controls the robotic arms. The facility is now open to the public.

DISCUSSION

Benefits of Automated Parking

More efficient use of space

The size and configuration of many commercial and multi-family lots in the City of Beverly Hills make it difficult to provide code required parking on-site due to lack of space and difficulty in providing ramps and adequate drive aisles for cars in parking facilities. Because there is no longer a need for ramping or drive aisles, automated parking facilities require less room per parking space than traditional parking facilities. Allowing the use of automated parking facilities to fulfill parking requirements will provide property owners with more flexibility in project design and parking provision and could make projects on smaller or narrow lots more feasible. Automated parking could also allow the provision of additional parking beyond code requirements, which may be beneficial in areas that lack publically accessible parking.

Safety/perception of safety

Some consider automated parking facilities to be safer than traditional parking facilities due to the fact that patrons drop cars off and wait for cars in a controlled area and do not need to walk to and from a car in the parking structure. Additionally, because individuals cannot access the cars once they have been "parked" in the automated facility, there is a decreased risk of theft and vandalism. There is less need for security due to the fact that customers are only allowed in the loading area of the automated facility, eliminating the need to patrol and monitor the entire parking facility.

Environmental

Automated parking facilities can reduce local CO2 emissions due to the fact that cars do not drive through, or idle in, the parking facility. The system also requires less ventilation and lighting. It has also been suggested that automated parking garages, because they can be fully enclosed and do not require patrons to drive vehicles through the facility emit less noise than traditional parking garages.

Cost

Costs for the provision of parking can be reduced when automated parking is used due to the reduction in space needed to provide the same amount of parking that would be provided by traditional means, especially in an area where the land costs are high, like Beverly Hills. Cost savings can also come from the lack of need to excavate in order to fit all code required parking. Further, the cost to operate the garage may be reduced due to the fact that fewer staff is required to monitor and or clean the facility.

Aesthetics and urban design

Allowing automated parking facilities to fulfill parking requirements set forth by the City could lead to better urban design in commercial and multi-family districts. Because each space in an automated facility requires less room, a developer or property owner may be able to fit required spaces into a smaller area, thus reducing the visual impact and bulk of parking in a project. Additionally, automated parking facilities can have better integration with the streetscape because there will no longer be the need for ramping from the street or large openings in exterior building walls to provide vehicular access or ventilation. While automated facilities may require less room and have better integration with the streetscape than a traditional parking garage, any parking facility has the potential to impact the community aesthetically and automated parking facilities will need to undergo architectural review.

Accessibility

Automated parking facilities can be designed so that all parking bays are accessible for all users. This essentially provides more accessible spaces than a standard parking garage, which often provide the minimum accessible parking required per code.

Challenges with Automated Parking

Risk/perceived risk of mechanical malfunction

As with any mechanical system, there is always a risk of malfunction. Any system interruptions could impact the ability of the automated parking facility to provide parking spaces, or the ability of a customer to retrieve a car in a reasonable amount of time (or at all). Additionally, because some may not be familiar with automated parking, it is possible that there will be a perception from the public that using the garage is risky because it *may* fail. This perception problem can be short-lived and decrease over time as the new technology is more widely adopted.

Throughput and appropriateness for various uses

Depending on the type of use for which the automated parking is used, there may be issues with throughput and wait time for retrieval of cars. For example, it may be difficult to keep retrieval times short in a facility if it is used to provide parking for a use that has high peak time usage, such as a movie theater or concert hall, where many users arrive and depart within a short period of time (such as before and after a show). Users of Automated parking may be more appropriate for multi-family buildings or commercial buildings without high peak parking demand.

Requires contracts and maintenance agreements

Property owners will need to ensure they have adequate contract and maintenance agreements to ensure that the mechanical and software components of the system are properly maintained. The contract and maintenance agreements could be more complex than those for a traditional parking structure.

Potential for traffic impacts due to queuing

If the automated facility is not designed to have an appropriate amount of space for queuing of cars, or an appropriate number of entry/exit portals, especially if the vehicle ingress is along a major thoroughfare, there could be negative impacts on the community due to cars queueing as they wait to enter the facility. Therefore, it is important for the Planning Commission to fully understand the potential impacts that a facility may have on the traffic pattern in an area during the approval process.

Could be confusing for unfamiliar user

Because automated parking technology is relatively new to the area, and has not been used before in the City, there may be a learning curve for patrons. This could result in delays or queueing. This would decrease over time as users become more familiar with the technology and use it repeatedly.

Technical review process & staff time

Currently the City does not process applications for automated parking facilities. If automated parking was allowed and applications were submitted, staff would need to establish protocols for training, review and coordination between the various departments that would be involved (including review for potential fire and safety issues).

Potential Ordinance Provisions:

Staff is seeking direction on the following potential provisions for inclusion in a draft ordinance that would allow automated parking to count for code required parking in private developments. Staff proposes returning to the Planning Commission with a draft ordinance incorporating comments from the Commission. The following provisions are meant to address some of the issues that may arise from the allowance of automated parking.

Definition

The Planning Commission may wish to define the type of automated parking that would be addressed in the draft ordinance. A fully automated parking facility uses sensors, cameras and motorized lifts controlled by a computer system to shuttle vehicles from an arrival/departure area, where the user exits the vehicle, to a storage area, where the vehicle is "parked" without an operator. When the user is ready to retrieve the vehicle, they present the ticket in the arrival station and the computerized system locates the car and shuttles it back to the user. Sometimes robotic or mechanical parking refers to a parking system that is semi-automated. This can include systems that use elevators or hydraulic lifts to lower or lift cars so they can be stacked. Semi-automated parking systems require an operator to operate the lifts or elevators. Staff is seeking input from the Planning Commission on the type of parking that should be allowed per the draft ordinance.

Use

The Planning Commission may wish to discuss which uses are appropriate to include in the draft ordinance as being acceptable for automated parking. Staff recommends considering all uses except single-family.

Planning Commission Review

Staff recommends that the Planning Commission direct staff to develop the draft ordinance so that each request for automated parking would be considered by the Planning Commission. Staff proposes that any request for automated parking would require a Conditional Use Permit.

Potential Findings

Beverly Hills Municipal Code Section 10-3-3800 states that the Planning Commission may authorize a conditional use if it finds that "the proposed location of any such use will not be detrimental to adjacent property or the public welfare". In addition to this standard condition for a Conditional Use Permit, the Planning Commission may also want to direct staff to draft the ordinance to include additional findings that are specific to automated parking facilities. Some findings could include:

1. The use of an automated parking system enhances the design of a project,
2. The use of an automated parking system furthers the goals and policies of the City's general plan related to the quality of neighborhoods and pedestrian experience,
3. The use of an automated parking system will not create negative impacts or delays on any streets due to queuing, and
4. The automated parking facility shall not exceed noise limits set forth in the Beverly Hills Municipal Code.

Ensuring that all automated parking applications are reviewed at the commission level will allow case by case review of each project by the City Planning Commission to ensure that each automated parking project is appropriate for the community and allow staff to move forward with the City Council direction to complete an automated parking ordinance while also.

Potential Project Conditions

A set of standard conditions can be incorporated into the code section for automated parking and during review the Planning Commission could impose additional conditions on each project on a case by case basis. Some conditions that the commission may wish to discuss including in a standard list of conditions that must be met by an applicant could include:

1. The automated parking system shall be located within the confines of a building that shall be subject to Architectural Review.
2. An automated parking facility shall comply with all applicable development standards for the zone in which it is located.
3. An automated parking facility shall be operated with parking attendant service for the first year (or longer) of operation during all hours that parking is provided to either the employees, patrons, or the public.

4. All systems shall have an average delivery rate of no more than five (5) minutes.
5. The automated parking facility must be fully accessible to persons with disabilities and shall be clearly marked.
6. A maintenance inspection report for any automated parking facility prepared at the expense of the applicant shall be submitted annually to the Community Development Department for review.
7. An agreement shall be established running with the land that the automated parking system will be operated and maintained in continual operation in perpetuity, or as long as the building remains.
8. All lifts must be designed to accommodate all types of passenger vehicles and each lift platform must be sufficiently sealed as to prevent dripping liquids or debris onto other vehicles.
9. The automated parking system and structure shall meet any applicable building, mechanical and electrical code requirements as approved by the Community Development Department.

Potential Incentive Program

A request has been made by a community member that the Planning Commission may wish to discuss whether an automated parking incentive program may be appropriate to encourage property owners to provide parking spaces in addition to the code required parking spaces in automated parking facilities. This could include a provision that allows a property owner to request an incentive from the Planning Commission (such as a deviation from established development standards) for providing additional parking spaces. Staff is seeking direction from the Planning Commission on this request.

Next Steps

In order to complete the work item and fulfill the direction from the City Council, staff recommends the Planning Commission provide comments on the information contained in this report and direct staff to return with a draft ordinance for consideration. If the Planning Commission directs staff to craft the ordinance to require Planning Commission review for all automated parking requests, the Planning Commission will have an opportunity to refine conditions and ensure that each project will not have a negative impact on the community on a case by case basis at the time of review.

Report Reviewed By:



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