

**Responses to Planning Commission Questions
from the 11/10 Study Session**

Staff spoke with Michael Dennison of Park Works to discuss some of the questions and concerns the Planning Commission had on mechanical lift parking. Park Works has done many mechanical lift parking projects in Berkeley, San Leandro and several other cities in California. Michael is a licensed engineer and has been working in the development industry for many years.

Question 1

Staff: How reliable are the mechanical lift systems and who generally manages the system once it is in place?

Michael: As you might imagine, the reliability of parking systems varies greatly depending on the manufacturer. As a parking consultant relates: "I tell them to buy quality, they go for price, the inferior products constantly break, the owners remove the low price models and replace them with quality." Typically it is most wise to purchase machines from the manufacturer's agent as they have access to parts and technical info. Often a maintenance contract is offered and extended warranties are available. For a successful outcome: buy quality, choose a company that will stand behind their product.

Question 2

Staff: Is there a high cost involved with maintenance of these systems?

Michael: I generally figure maintenance costs at 1.5-2% per year. I own four (parking) units and I have used them extensively every day since traveling to Germany to purchase them in 1985. They almost never need attention beyond maintenance.

Question 3

Staff: What types of building inspections are required for these systems?

Michael: The NPA Parking Consultants Council is working on safety guidelines. The building departments are largely without code relating to mechanical parking and we are looking to correct this. Typically a 3rd party testing lab is called in to write a report on the installed system. There needs to be prescribed periodic maintenance or people may get hurt.

Question 4

Staff: How long does it take to get your car with the dependent stacker systems (one on top of the other)? What about the independent lift systems (puzzle or something similar)?

Michael: Raise and lower time is about 30 seconds each. The longest puzzle access time is a brief 90 seconds and you get to watch the choreographed action while waiting.

Question 5

Staff: Can you talk a little about the safety precautions put in place with these devices and also the risks?

Michael: The puzzles with pits have gates that only allow motion if the gates are shut. Independent lifts are installed without gates and they can present a hazard. We employ safety light barriers, flashing lights, Miller edges. Overall, well maintained systems are very safe. The inherent risks associated with standard parking of cars (pedestrians and cars in the same space) are orders of magnitude greater than those posed by mechanical parking systems. I believe that back-up cameras are required on all 2017 vehicles to help prevent the annual 120 deaths due to people running over pedestrians in reverse. People do not get hurt in the actual parking machines.

Question 6

Staff: What happens if there is a loss of electricity?

Michael: Loss of electricity on a dependent stacker system does not present a problem as most are hydraulic and you can manually open a valve and lower the platform. More complicated systems allow access to most, but not all, cars if power is lost. Most systems have very modest power requirements and a small portable generator will suffice. Mechanical problems can strand cars as well. This reinforces the idea of choosing quality systems and service.

For more information on mechanical lift parking systems or Michael:
www.parkworksus.com