

Autonomous Vehicles and Parking: Preparing for a Bumpy Road Ahead

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The United States has too much parking. Far too much. Approximately two years ago, Bloomberg's City Lab estimated there may be as many as 2 billion spaces in the United States and only 250 million cars. Some cities like Seattle have more than five times the amount of parking spaces as households, and, in some cities, the ratio is even more lopsided. For example, Jackson, Wyoming, has approximately 100,000 parking spaces and only 10,000 residents. Parking lots also consume enormous amounts of land. Roughly 14 percent of the land within Los Angeles is dedicated to parking. Take a ride in an Uber anywhere past vacant office buildings, empty malls, or quiet city centers with stores going out of business, and it is easy to recognize that there is much less need for large parking lots and multistory garages than there was a few decades ago.

Meanwhile, a key development is gearing up to push traditional parking garages closer to obsolescence: autonomous vehicles (AVs). These are cars and trucks that can drive themselves, with or without passengers. For several years, many Americans have imagined what this might look like. Could commuters watch Netflix or nap during the early morning or evening rush hour? Could busy parents send the car to go pick up the kids from soccer? Could individuals with visual or other disabilities unlock the same vehicular freedoms so many other millions take for granted? Could they help the environment and fight climate change through the mass adoption of entirely electric and clean vehicles? Could people forgo personal car ownership altogether and enjoy subscription-based fleets where driverless taxis roam the streets waiting to be hailed electronically? Could traffic congestion and deaths and injuries from accidents plummet by removing their primary cause: humans?

The reality meshes with and touches upon all of these scenarios. All are possible, though the speed of development has decelerated in the last two years. Many in the self-driving industry believed widespread adoption would occur in the early 2020s, but the consensus estimate for a tipping point has been pushed down the road. Machine learning, the key driver to help AVs interact with other cars, people, and city infrastructure, has not advanced as quickly as expected. Some recent accidents and fatalities understandably have dampened public enthusiasm and have fed into general fears many already have had about quickly-evolving technology. Though humans have come to rely on pseudo-autonomous tools like park-assist, auto-braking, and collision avoidance systems, handing all responsibility for one's safety in a vehicle over to a computer will take deep trust through public relations, community outreach, and government buy-in. And although local and state governments are taking some good preliminary steps to help set the stage for the future mass-adoption of AVs, the broad lack of investment in "smart" roads and infrastructure to interact with the AVs has limited the ability to rocket toward high-level autonomy. COVID-19 has also slowed development, as testing requires two people to be in an AV—a difficulty given social distancing requirements.

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Nonetheless, there is a sense of inevitability that autonomous vehicles will meaningfully change our cities and our lives—and our need for parking. The population may own far fewer cars and consequently need less parking. Those that are privately owned can be sent off-site and park themselves. One model from the University of Texas–Austin found that if an entire city shifts to AVs, it would need 90 percent less parking than it does today. In an ideal world, if the need for parking drastically decreases, those with ownership rights over obsolete and unused parking areas would come together and agree on how to change their use. As those in real estate know, the reality is far messier. Documents that govern the relationships between mixed-use components of a project (e.g., ground-level retail below mid-rise or high-rise residential or a hotel) often contain restrictive covenants to protect owners and tenants by prohibiting the introduction of new or competing types of uses. This can make conversions or adaptations of unused parking areas difficult or impossible to achieve. Also, parties with exclusive rights to parking areas are likely unwilling to give up those rights or amend such restrictions without receiving a tangible return, whether it be in a monetary form or in exercising consent rights to limit, restrict, or customize new adaptive uses to meet competing needs. Consequently, even modest conversions could be difficult or expensive propositions.

How can developers and owners designing a project today be best prepared to deal with technological changes in the future that are out of their control? Discussed below are some ideas on how these issues might be addressed prospectively in the governing documents of a mixed-use project that involves multiple components and co-owners. Also discussed are other challenges that could impede the chances of redevelopment if not thought through well in advance, such as zoning considerations and the physical costs and restraints on conversion.

Ownership Structure Issues

When planning a new development, in addition to the essential questions about design, construction, financing, and general viability, developers also need to figure out the kind of ownership structure that will overlay the project. Many variables go into the decision. Is it to be single-use (e.g., an office building) or mixed-use (e.g., office space on top of ground-floor retail on top of a shared underground parking garage)? If mixed-use, will the components be sold to multiple owners, or will they all be held by the developer or a single buyer? How will the relationships between the components and their shared spaces such as parking, rooftops, alleys, loading docks, and lobbies be governed? Will they be subject to a covenants, conditions, and restrictions agreement (CCR) or a condominium regime? What rights will lenders have to exert control?

On the issue of parking, given that autonomous vehicles are expected to reduce the long-term need for vast parking areas, then the corresponding goal for new development is to give the owner as much freedom as possible to eventually (a) change the existing use entirely (e.g., converting a parking garage to warehousing, apartments, retail, or even urban farms) or (b) retrofit the parking structures for a different kind of vehicle—fully electric cars that can justify narrower spaces or “stacking,” where the vehicles will be able to “talk” to each other and park themselves without the need to open doors, dropping off their passengers by the entrance and picking them up when summoned.

From a legal perspective, the simplest way of maintaining control over parking would be for one entity to own the entire garage as a stand-alone component, assuming that the local jurisdiction permits the garage to be treated as a separate tax lot (i.e., as a “master parking condominium unit” or as a three-dimensional, taxable parcel) having independent ownership from the rest of the project for which it supports parking requirements. The garage owner could license a certain number of spaces to the other component owners and tenants for an annual fee, or operate a pay garage open to the general public, which would allow the garage to function as a revenue-producing asset. In 10–15 years, if, for example, only 100 of 500 parking spaces in a structured parking facility are being used, this owner would be in a better position

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to reallocate or remove spaces and redevelop the unused portion. The parking facility owner's challenge would be made easier still if the project documents contemplated a future change of use to parking areas and prohibited interference with such change by component owners or their tenants. Notwithstanding any rights a lender may have in such a scenario, the other component owners would be less capable of exerting opposition or delaying these decisions than they might have been able to do under a CCR or condominium documents.

CCRs and condominium documents typically contain restrictive-use covenants for each component and will typically require that parking facilities be used for the parking of vehicles and no other purpose. Amending the project documents later to liberalize these use restrictions, allowing a parking structure to be redeveloped into a different use, may require buy-in (and spending) from all parties with an ownership interest. But one problem is that the redevelopment and repurposing of underutilized parking areas may only benefit a sample of the owners. Attorneys can play a major role in figuring out this puzzle by drafting creative provisions and covenants in these documents. How can they be set up so that all parties will return to the table to have these discussions well into the future?

The documents could include provisions that expressly authorize the redevelopment of the parking structure. Alternatively, they could require the owners to reasonably agree to amend the project documents (i.e., change the uses or decrease the size of parking, or grant easements that may be necessary to accommodate the repurposing of the parking facility) upon a showing that (a) all of the parking needs of the project can be met with a reduced parking footprint or (b) new technology could reduce parking demand beyond a certain threshold for a certain amount of time.

Legislative Issues

Even if a developer can draft documents that would facilitate future owners redeveloping parking garages or lots, they may have another set of challenges under zoning laws.

Many cities are encumbered by relatively outdated zoning laws concerning the minimum amount of parking spaces a property must have. For example, a project may be required to have one parking space for every 250 square feet of retail, or one parking space per each residential unit, even for projects located in urban centers with ready access to public transportation. This is one of the main reasons that today, even without the looming impact of AVs, massive amounts of parking spaces are never used, wasting space that could be redeveloped and monetized in other ways.

Certain cities have taken integral steps already as they anticipate the future impacts of AVs and other large-scale trends. In 2018, Chandler, Arizona passed the first amendments to any zoning code in the United States specifically tied to autonomous vehicles. The amendments set forth a process developers may take to lower the number of required parking spots for new buildings if AV use reduces parking demand. Taking it further, San Francisco has removed parking minimums entirely.

Although changes to parking requirements are just one facet of broad AV-related policy, the country is moving in the right direction: 29 states and Washington, DC, have enacted legislation about AVs. It may be surprising to think about AV laws in the context of real estate development, but prudent developers may want to monitor these particular types of bills as part of early-stage planning.

Zoning variances are another option, yet they are also replete with challenges. Variances, in theory, permit exceptions to zoning laws, but they can be difficult to obtain and are hard to predict for proactive or large-scale requests (i.e., applying for a variance because in 10 years a building might need much less parking). Approval for attenuated and generalized changes such as future technology's influence on

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parking may be particularly challenging. Jurisdictions vary, but developers may need to address some or all of the following elements to prove that compliance with zoning laws would create an undue hardship: (1) determining that the variance will not result in an undesirable change in the neighborhood; (2) demonstrating alternative strategies to a variance that would be lawful within existing ordinances; (3) confronting the issue of substantiality by determining whether the requested variance might be too great a degree of nonconformity within a neighborhood; (4) ensuring minimal impact on the environment, including factors like drainage, noise, and traffic congestion; and (5) ascertaining whether the need for the variance is the result of a property owner's self-created difficulty. A variance application for parking is more appropriate for a garage that would cause a material loss to the owner if the developer had to build an extra floor to meet a parking minimum, instead of getting a variance for four or five spots. As such, obtaining one should never be a forgone conclusion, and a developer should not build with that hope in mind.

Architectural and Engineering Issues

Even if the documents would permit a change in use or redevelopment in the next decade or so, and even if the zoning laws permit such uses by that time, developers will often lack the financial incentive to forgo making a profit on parking today from the simple act of selling the spaces. For example, in Washington, DC, new residential parking spaces are sometimes sold for more than \$50,000. From a cost and engineering perspective, hedging for an uncertain future could be prohibitively expensive or risky. This is especially true if the initial developer is trying to cash out shortly after construction. It would not be their problem to have to think about development down the road.

Zoning aside, some of the 29 states discussed in the prior section that have passed AV-related legislation recognize the difficulty for developers in justifying high up-front costs to build an infrastructure that they may not need for another decade. As such, some have introduced subsidies and other tax breaks to help incentivize developers to build for the future now, similar to the more commonly known tax credits offered for building solar panels on a roof to contribute to the overall energy grid.

In addition to capitalizing on possible subsidies or tax breaks, developers who trust in the existing models and trends that show how parking will be less necessary, and who can sell investors on the same, have an opportunity to add value through their designs today. Without planning, it may be too expensive or difficult from an engineering perspective to try to retrofit later. For example, AVs are almost certainly going to be entirely electric. In 15 years, if that a lot or a garage cannot be entirely redeveloped for a different use, what happens if 80 percent of the existing spaces need to be retrofitted for electric vehicles? If the garage is underground, below buildings, demolition is not an option. To build out the electrical capacity and infrastructure for charging stations or pads could cost many millions of dollars, and buyers may be willing to pay a premium to avoid such migraines.

E-commerce during the COVID era has created a large demand for warehouse space and "last mile" distribution centers. The trend away from in-store retail to online shopping is likely to continue, especially with autonomous trucks capable of driving down shipping costs (they can run longer without the driver needing to sleep overnight). There are plenty of examples of the parking garage to warehouse conversion today, but what would happen to future owners if the ceilings were not built high enough to permit autonomous trucks to enter and load? Further, many existing garages are built with a slight several-degree incline (not including the actual ramp portions between floors) so that rainwater may run off parked cars. This could preclude future conversions to residential or office space.

One garage in Los Angeles has replaced vacant spaces with an underground commercial kitchen for on-demand, delivery-only restaurants. In Denver and Seattle, the roofs of parking garages have been

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converted into urban greenhouses and farms. And, in Paris, an abandoned garage was converted into a growing space for mushrooms and roots that don't need sunlight. The options for these spaces are varied, but developers will want to keep that in mind, instead of assuming the garages and lots will exist in perpetuity.

Conclusion

Developers and their attorneys contemplating new projects with parking today should keep in mind the issues outlined in this article. It will be very difficult to get retroactive buy-in from all interested parties when different components of a mixed-use project have different owners. Clever drafting can help combat the "what's in it for me?" mentality. Though zoning will be a hurdle, and even if full use conversions are not possible, projects that contemplate retrofitting parking spaces for electric, autonomous vehicles may be able to add value today. Though drivers may not sit behind the wheel forever, it is important to keep their eyes on the road ahead while they still do.