

PARKING TRENDS

By

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A. Slowly, We Are Winning The War For Downtown Friendly Garages

For decades following WWII, new downtown parking garages tended to be physically unattractive, intruding into the urban fabric in ways that disrupted how downtowns are supposed to work, and deprived them of an important competitive advantage. The objective was simply to store vehicles. Little thought was given to whether the garage created a pedestrian discontinuity that discouraged people from strolling and shopping, while too often stimulating fears. Even less thought was given to how the perhaps functional, but blaringly ugly parking structure diminished the downtown's attractiveness and image.

It was not as if examples of better downtown parking projects did not exist. Walking around Manhattan today, for instance, one may easily find garages in what appear to be ordinary high-rise commercial structures that were built before the 1960s. Their parking use is basically masked, save for the signage and ugly windows.

More impressive is the Carew Tower in downtown Cincinnati that was completed around 1930. It is a mixed-use project with wonderful art deco decorative themes placed throughout its three towers, mainly in the metalwork and grillwork of the elevators and lights. Originally, the project had three towers specializing in three distinct uses: offices, a hotel, and a parking garage that relied on an elevator to move cars between levels.

The John Hancock Center, completed in 1969, on N. Michigan Ave. in Chicago, has 100 stories, a height of 1,127 feet and provides space for offices, retail shops, restaurants, and about 700 condominiums. The ground floor and the floor above it are for retail and commercial uses. Above them on floors 3 through 13, thoroughly masked, are 11 stories of parking. The office and condos are located above the parking. A helix one block down a side street provides entry and egress from the parking.

These examples gained little traction until about the mid-1990s and as more downtown friendly parking structures began to appear a kind of snowball effect emerged and more and more developers proposed such projects without local civic leaders having to bang them overhead. They also have begun to appear in medium-sized downtowns such as Cranford and Englewood in NJ and Ithaca, NY.

DANTH has created a photo album of downtown friendly parking projects that is posted on the Downtown Curmudgeon's website for photos. Feel free to visit and download the photos at no cost. The web address for the photo album is:

<https://picasaweb.google.com/dmilder/DowntownFriendlyParking#>

Photos like these can help demonstrate to developers, town councils, planning boards and the public what can and should be done when it comes to downtown parking structures.

B. The Challenges

1. User Convenience and Safety. The above discussion detailed how the external features and ground floor uses of garages have been improving so they integrated far better with the rest of the downtown. Unfortunately, how garages are configured and operate inside very often still create huge problems.

DANTH has no transportation engineers, transportation planners or parking specialists on staff. However, we do run into parking issues continually as we engage in our consulting assignments. As a consequence, DANTH has developed a deep sense that parking issues are habitually scoped-out incorrectly because conceptual blinders lead to parking solutions are formulated to address the wrong problems. As a result, parking facilities are too frequently designed to store vehicles, with insufficient attention to serving the people they transport. Here are some examples of the "people aspects" of downtown parking problems:

- One nameless town along the Hudson River in NJ wanted to build a new parking deck although field investigation showed low utilization of municipal parking lots with ample parking spaces. Survey data indicated that many people simply did not know where the lots were or if the lots had available spaces. Was the problem here insufficient capacity? Was the viable solution a big parking deck? No on both counts. The capacity was adequate. Downtown shoppers needed better, up to date information so they could use it. This linkage between information and better utilization of parking capacity is too often overlooked.
- For nearly 25 years we have found that on a busy fall Saturday at lunchtime in downtown Wellesley, MA, one can spend a good deal of time searching municipal lot by municipal lot for a vacant parking spot. This strong, attractive and busy downtown is a *de facto* lifestyle mall without central ownership. Lots of shoppers come not only from the college, but from many other affluent nearby communities. One might hypothesize that such frustrating searching for a parking space erodes shopper interest and visitation. Would a big parking deck be a solution here? How would it fit into the urban context? Would the local female shoppers really use it? If not a deck, what else can be done to ameliorate the need to search for parking spaces?
- Some downtowns build new surface lots or decks on the periphery of their districts and then the leaders are surprised when few shoppers or diners want to use them! DANTH does not do brain surgery, but....

- Multi-level garages have been built to provide downtown shoppers with convenient parking only to have the operators discover that few shoppers will use the upper levels. No one apparently looked at how much time it would take on foot to get from a car on higher levels down to the sidewalk and then back again. No one also probably thought about the confinement of enclosed stairwells and the probable urine and urine smells they would attract. Or the hiding places built into many garages. Or the fear inducing potentials of elevators. Most shoppers are female and if you interview them about parking you will find they do not feel safe in most garages. Guess what makes them fearful! One does not need to be a rocket scientist to avoid this situation.
- Increasingly, downtown trips are quick, pick up or drop off types of visits and the shoppers do not want to spend more time looking for a space, parking and getting to and from their destination than they will in the shop or eatery. Yet, we have found very, very few downtowns with a short-term parking program aimed at these key consumers.

Because of the nature of our business DANTH is primarily concerned about the people who live, work, play and shop in downtowns and how they engage in those activities. Consequently, DANTH sees the nature of their parking needs not just in terms of needing a place to store a vehicle, but also and primarily about how that parking space will impact on the ways those folks use the downtown and its shops, restaurant's and entertainment venues. From such a consumer perspective, the key parking issues are first convenience and safety and only then capacity. Few downtowns have their parking problems analyzed in these terms. Far too few parking facilities are designed – even recent ones – to maximize user convenience and safety. Ah, you think we are wrong! Then let us ask: “When was the last time you parked in a garage that had electronic signage directing you to the levels with empty spaces?” Never, probably. Roaming around a deck, searching for an empty space takes time and generates frustration and then perhaps anger. It is an irritating inconvenience. Then it seems to take forever to walk out of the deck and likely requires walking down filthy, foul-smelling, little prisons with stairs. It certainly is a very poor way to welcome visitors into your shopping district. It is the worst kind of customer service.

2. The Cost Of Downtown Land. Downtown land costs are high and rising. Moreover, as a downtown revitalizes land costs will escalate at an increased pace. This means that creating more physical capacity for downtown parking is getting more and more expensive. Parking revenues typically cannot compete with those yielded if the same parcels of land are put to office, retail or residential uses. In fact, without subventions and/or greater project density, parking very often cannot pay its own way.

Finding solutions to this problem is a major challenge to future downtown revitalizations.

C. Technological Responses: Some Examples

To address the above problems requires management and technological innovation. Unfortunately, gene therapy has not matured to the stage where it can be used to cure downtown leaders and city officials who work so diligently to produce ghastly, unattractive and user insensitive parking facilities. Getting rid of them is certainly one alternative, but usually difficult to achieve. Another approach is to find good examples of the people friendly parking projects and then selling local leaders on them because the projects will genuinely improve the downtown, while making the leaders look far-sighted and effective (i.e., like real leaders).

Technology can play a big role in maximizing the amount of parking that can be placed on a piece of downtown land as well as help make a parking facility easier, quicker and safer to use.

Figure 1 . Stacked Outdoor Parking, Manhattan



1. Stacked Parking. One way to deal with rising land costs is to get more cars parked on the same amount of land. This can be done by going higher—but it also can be done by packing more parking spaces into the same volume of space. For example, in Manhattan, cars have been mechanically stacked on top of each other in small outdoor lots. These parking operations double or even quadruple their capacities without increasing the size of their lots. See Figure 1.

Looking out over the 2008-2013 time period, DANTH believes that relatively small infill residential projects will have growing impotence in downtown

revitalization efforts across the nation. The viability of many of these projects will hang on their ability to provide on-site parking. The stacking approach pictured above has been adapted for use in basement garages – see Figure 2 – located in such modest infill projects.

Figure 2. Inside Stacked Parking



DAL Design Group and its development subsidiary, in Bayonne, NJ, are working on a number of projects using this technology.

At this juncture, DANTH cannot recommend the immediate adoption of this technology – but, we can state that it is one that certainly warrants serious investigation.

2. Robotic Garages. Another approach, using much more sophisticated and expensive technology, is to build what some call robotic garages and others refer to as automated parking systems. For example, a seven-level municipal parking structure, only 56 ft high and capable of storing 324 cars was built on a relatively modest 100 x 100 lot in downtown Hoboken, NJ. (Martin, 2003). The entering autos are placed on a steel palate, which is then moved mechanically to and from its storage location under computer guidance.

This garage encountered problems with the computer program controlling its operation, resulting in its closure for a time. Although now reportedly fully back in operation, its problems have put a wet blanket over the idea of robotic garages in the Northern NJ area.

But, robotic garages promise at least doubling the number of cars that can be stored on any given piece of downtown real estate, while greatly reducing the personnel costs for attendants and cashiers. These benefits attract a number of developers even though robotic garages cost significantly more to build. For example, at 123 Baxter Street, in Manhattan's Chinatown, Automation Parking Systems installed and operates what their name says in a new building. It has 24 residential units, ranging in size from 1,200 sf to 4,800 sf. Every unit is guaranteed at least one parking space in the basement garage, which holds 68 cars.

The estimated average cost for a robotic garage space is about \$40,000, compared with \$30,000 for a space in a typical underground garage, although those figures can be considerably higher if the builder has to dig deeper or encounters other problems along the way. (Hughes, 2006).

Manhattan's Chinatown is very densely populated with many narrow one-way streets. Parking is at an absolute premium. New infill residential buildings, such as this, with safe off street parking, are rare. The 44 parking spaces not allocated to residents will be made available to nonresidents, with the revenues raised hopefully more than offsetting the costs of the robotic system's installation and operation.

Here is a link to a DANTh slideshow on the Automation Baxter Street facility and how it operates:

<http://picasaweb.google.com/dmilder/RoboticGarage123BaxterStNewYorkNY>

The technology it uses has been used successfully in numerous facilities in Europe, especially Germany.

DANTh thanks Jordan Rinzler of Automation for inviting us to visit the facility and being our tour guide.

The Takeaway. Based on the information we have obtained, DANTh believes that robotic parking should be given serious – not knee jerk nor flippant – consideration for any downtown project that requires about 130+ parking units. DANTh also believes that the number of such projects that will find automated parking an appropriate solution will increase with time and the:

- Accompanying rise in downtown land prices
- Reduction in the costs of the automated systems
- Growing acceptability of the approach as more systems are built and operate successfully.

DANTh also believes that the automated approach may be appropriate for smaller projects, such as 123 Baxter Street, when the facility can meet, in addition to the needs of building residents, high neighborhood demand for parking among people who can and will pay a high price for it.

3. The Grove. Rick Caruso and his firm, Caruso Affiliated, have created one of the most successful and popular retail centers in the country, called The Grove. Located in Los Angeles – the city famed for reputedly having no there there -- its design resembles a small downtown, with its own trolley, bevy of trophy retailers, cinema, restaurants and location next to the locally cherished Farmers Market. It is also across the street from Parc La Brea, a huge housing complex built by MetLife after WWII.

In no small measure, The Grove's success is due to an insightful understanding of how shoppers behave and a great attention to detail in responding to shopper needs, especially concerning making the visitors experience easy, safe and enjoyable.

This is shown in how they handle parking. The garage has eight levels and – contrary to what happens elsewhere -- shoppers have no problem with using the upper levels. In part this due to The Grove being so popular, but also because the garage uses open escalators and electronic signage to make shoppers feel their visits will be safe and convenient. Here is a link to a brief DANTH slideshow that shows these two features:

<http://picasaweb.google.com/dmilder/ParkingAtTheGroveInLosAngeles>

The escalators completely avoid all of the garage stairwell problems and make pedestrian egress and entry feel safe, pleasant and quick.

The electronic signage greets the drivers as they enter the garage and indicates how many spaces are available on each level. This type of signage is used all over Europe. It is absolutely astonishing that more garages in the USA do not install them.

Moreover, in Paris, for example, similar sign technology is used to indicate on roads coming into the city the occupancy levels of various municipal garages, which reduces the amount of time, effort and gasoline drives spend on finding a space. Such a technology can certainly be implemented in the USA. Communities such as Wellesley, MA, and the Hudson River community described above would greatly benefit from them.

The Grove exemplifies a level of concern about visitor convenience and safety that many downtowns leaders and business operators can learn from. The Grove also uses modern technologies in ways that many downtowns can use as models.