

'Shared Parking' in The Woodlands To

By Jerry Marcus

The Woodlands, about a half-hour drive north of Houston, is one of the most recognized master-planned communities in the U.S.. The development covers 24 square miles, and has a population approaching 100,000 residents. (It's also the author's hometown.)

The Woodlands Town Center, the community's commercial and entertainment district, contains:

- Nearly 3 million square feet of retail, including a 1.3 million-square-foot regional mall and a 34-acre main street lifestyle center.
- 7 million square feet of office, including offices for several Fortune 500 companies.
- A 70,000-square-foot convention center and a 340-key hotel (The Woodlands Waterway Marriott).
- Nearly 40 restaurants.
- The fifth-busiest outdoor amphitheaters in the world (The Cynthia Woods Mitchell Pavilion).
- Numerous high-end residential developments.

The first office towers in Town Center, developed in the 1990s, had dedicated parking structures for each building. This was the typical suburban model - one building, one parking

garage. They had no street-level retail/restaurants, and the garages were essentially empty on evenings and weekends. Worse, most days there was a significant parking surplus in these dedicated parking facilities.

The top levels of the garages were hardly used. Because the entire cost to construct and operate these early parking facilities was the burden of the individual office project, the garages were basic (low-cost) precast structures. The distances to nearby retail developments were significant, making pedestrian activity challenging.

Fast-forward 15 to 20 years, and the community has embraced the principles of "shared parking." This can occur when different peak-hour parking demands exist between the separate uses; or single-vehicle trips are likely to be made to two or more of the businesses proposed to share the parking.

Recent garages in The Woodlands do both. They serve multiple office buildings (during the day), event parking (on weekends), retail parking (nights and weekends) and hotel/residential parking demand (overnight).

Because of the vitality of Town Center, patrons are likely to stay at the convention center hotel, dine at one of the many



Many small and medium sized businesses share the space with cars at the Woodlands Town Center near Houston

Town Center Was 'Part of the Plan'

restaurants, and later attend a concert. These garages are designed to serve differing groups of parking patrons around the clock. The parking structures, like the buildings they serve, have lively street-level retail and contemporary architecture.

Determining the optimal parking supply started with a discussion with Dan Leverett of The Woodlands Development Co.'s Commercial Development group, which was beginning a core business/entertainment project called The Waterway Square District.

He asked some fundamental questions: How do we "right size" the parking without negatively impacting leasing? How can we provide parking for each of the project's diverse components without wasting valuable land and capital resources on empty parking spaces?

The "Shared Parking" model from the Urban Land Institute (ULI) was where we started to answer those questions. ULI's model contains information to estimate parking requirements for a mixed-use setting, where parking is shared among various parking generators. This tool is widely considered the best methodology for modeling shared-use parking.

However, the model that we provided for the Town Center garages needed to be more specific. The basic categories in the ULI model were refined. Models used up to this point did a great job of identifying the worst-case parking demand given a matrix of uses.

The so-called Woodlands model took into account more specific demand generators. Its categories looked to more stringently define business types. Some examples of this rigorous review include:

- Oil and gas firms had employees travel out of the office twice as often as a financial firm.
- The length of stay was much longer for "fine dining" than "casual dining."
- The number of customer visits was lower for a jewelry store or an auto-boutique than traditional retail.

The common argument for not considering this granularity in shared-use calculations is that, over time, new parking generators/businesses would lease the property, and there would be potential for surpluses or shortages. This was addressed in the easement documents for the building owners taking shares in the parking facilities. Changes to the mix of business would trigger a redress in the model calculation. This activity was mandated by contract and provided a means to rebalance the parking user groups.

In addition to the contract language that "protects" the Woodlands model's integrity, operating parameters were developed that used technology and operating policies to prioritize parking utilization during extreme peak conditions. A combination of validations and punitive rates was recommended to ensure that the demand for any of the participating properties was satisfied first.

The result is one of the most pedestrian-friendly communities anywhere.



Parking entrances are off the main pedestrian area at the Woodlands.

Another important concept that the Woodlands model embraced, and which was woven into the contract documents, was the requirement for businesses to be entitled to parking "contracts" and not just parking "spaces." These allowed for oversell factors that facilitated higher levels of parking utilization. (The practice of many building owners to reserve or guarantee large blocks of space is detrimental to any shared-parking program.)

In the case of The Woodlands, shared parking was used to improve an entire district. Office towers were built without dedicated garages; instead, these buildings were provided an allocation of parking contracts in a shared garage. The result is one of the most pedestrian-friendly communities anywhere.

The shared-parking model has been used to reduce parking facility costs (a space used to support multiple generators is far less costly than a space supporting one generator). Also, the lower number of developed parking spaces allows designers greater flexibility - in urban planning, site design, open public space - and has encouraged more efficient use of land.

The shared use concept has been an instrument in helping to create a community that is safer, more walkable and requires less parking, and that has more of the essential energy required for any community to thrive.

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