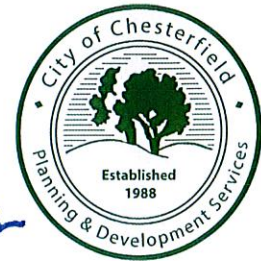


Memorandum

Department of Planning & Development Services



To: Planning and Public Works Committee
From: Jessica Henry, Senior Planner *jh*
Date: July 19, 2018
RE: Mixed-Use Parking Analysis

*Forward to PPP
for further discussion
MH
7/16/18*

The City Council recently directed Staff to provide information on parking requirements for mixed-used developments. Specifically, a desire to understand how the parking requirement would be determined for a large development comprised of a variety of commercial and residential uses was expressed. This memo will detail how the Unified Development Code (UDC) would treat such a development and will present the nearby Streets of St. Charles development as an example.

Chesterfield Parking Calculation Methodology

First, it is necessary to understand how the use-based parking ratios that are established in the UDC were determined. From 2008-2010 the Department of Planning and Public Works completed two large scale parking inventories of commercial developments within the City. Based on the findings, in April of 2010 the Off-Street Parking and Loading Requirements were significantly revised in order to update requirements to be more in line with modern demands and to revise the methods of application to make them easier for property owners to understand and the City to administer. Additionally, parking maximums were added to the code at that time. In undertaking this study, the City evaluated the data collected against the parking standards presented in the ITE's Parking Generation manual and concluded that these ITE data and conditions in the City of Chesterfield are similar.

The ITE's standards are based on the extensive research contained within the *Parking Generation* publication produced by The Institute of Transportation Engineers (ITE). For example, the 4th Edition of the Parking Generation utilized information from over 450 study sites to create distinctive land uses with specialized parking datasets. In turn, the UDC has incorporated 140 separate land uses each having a minimum and maximum parking requirement. In reviewing development plans, each Planner is responsible for verifying the calculations presented on the plan to ensure that it falls within these boundaries.

Mixed use developments present a particular challenge because, when successful, they are often a regional destination where parking can overlap between land uses and parking duration may last longer. For example, a mixed-use development that has both a restaurant and movie theater may bring one vehicle to the development to patronize both uses, and that vehicle may stay parked longer than during a trip to just one of the uses. While this seems intuitive, one can easily imagine how complicated this scenario becomes when scaled up to many uses with differing compatibilities, peak hours, and parking turnover frequency. This is why the ITE's methodology of physically studying sites through long observational periods where detailed counts of vehicles entering, exiting, and parking duration leads to the most reliable and accurate use-based parking ratios. While specific parking ratio requirements vary from municipality to municipality based on the community size, character, development patterns, and other factors, many development codes are rooted in ITE data and recommendations.

Example: Streets of St. Charles

In order to illustrate how the parking of a large, mixed-use development would be determined, an analysis of the parking for the nearby Streets of St. Charles development is provided below. While the two codes break down the ratios per land use differently, the ultimate number of required parking is remarkably similar.

The Streets of St. Charles is a large, mixed used development consisting of the following land uses over a 27 acre site:

Streets of St. Charles (per site plan at full build out)	St. Charles Parking Calculations (from City Code)	Chesterfield Parking Calculations (from UDC)
137,721 SF Retail	1 per 200 SF = 688 spaces	5 per 1,000 SF (reg.retail) = 688 spaces
16,726 SF Restaurant	1 per 100 SF = 167 spaces	12 per 1,000 SF = 200 spaces
110,824 SF Office	1 per 350 SF = 316 spaces	3.3 per 1,000 SF = 365 spaces
309 Apartment Units	2 per dwelling unit = 618 spaces	1.75 per dwelling unit = 540 spaces
267 Hotel Rooms	5 space min. + 1 per room = 277 spaces	1.2 per unit = 320 spaces
978 Seat Theater	1 per 4 seats = 244 spaces	1 per 4 seats = 244 spaces
TOTAL	2,310	2,357

As you can see, while the particular parking ratios for some uses differ, the total number of parking spaces required for this development based on the simple code calculations is remarkably similar. However, it should be noted that complex developments such as the Streets of St. Charles development typically require more analysis in determining the ultimate amount of parking required, and parking codes, including the UDC, typically include a process for reviewing a Parking Demand Study based on the unique or specific characteristics of the proposed development. For example, the Streets of St. Charles utilizes free valet parking for the restaurant and entertainment uses during peak periods. Additionally, the development contains office uses that have daytime peak parking periods and which are therefore compatible with uses with evening peak parking periods, such as restaurants. Finally, residents who live there patronize the businesses, resulting in few vehicle trips. Factors such as these could be evaluated in conjunction with a site-specific Parking Demand Study to ensure that these synergies or common trips are accounted for when determining the proper amount of parking.

It should also be noted that simply determining the appropriate amount of parking spaces for a mixed use development does not guarantee that the parking will function appropriately. For this reason, the City’s review of parking extends to parking location, accessibility, vehicular and pedestrian circulation patterns, multi-model travel demand, and other physical site planning considerations. This is an important part of the City’s review process, from the Staff level, to the Architectural Review Board, Planning Commission, and often, City Council reviews of large scale, significant development proposals.

Recommendation

Based on the current review process, thorough vetting and research conducted as part of the 2010 updates to the City’s Off-Street Parking and Loading Requirements, and flexibility to require site-specific Parking Demand Studies for complex, mixed-use development, Staff recommends that no changes be made to the UDC at this time. As with the parking stall analysis, it is Staff’s position that the City’s current standards adequately balance the variety of parking facilities within the City without unnecessarily increasing the amount of land required to be devoted to parking facilities.