

BTOP 2006 Downtown Parking Garage Survey

11/27/06

Bloomington Transportation Options for People

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BTOP 2006 Downtown Parking Garage Survey

The Survey

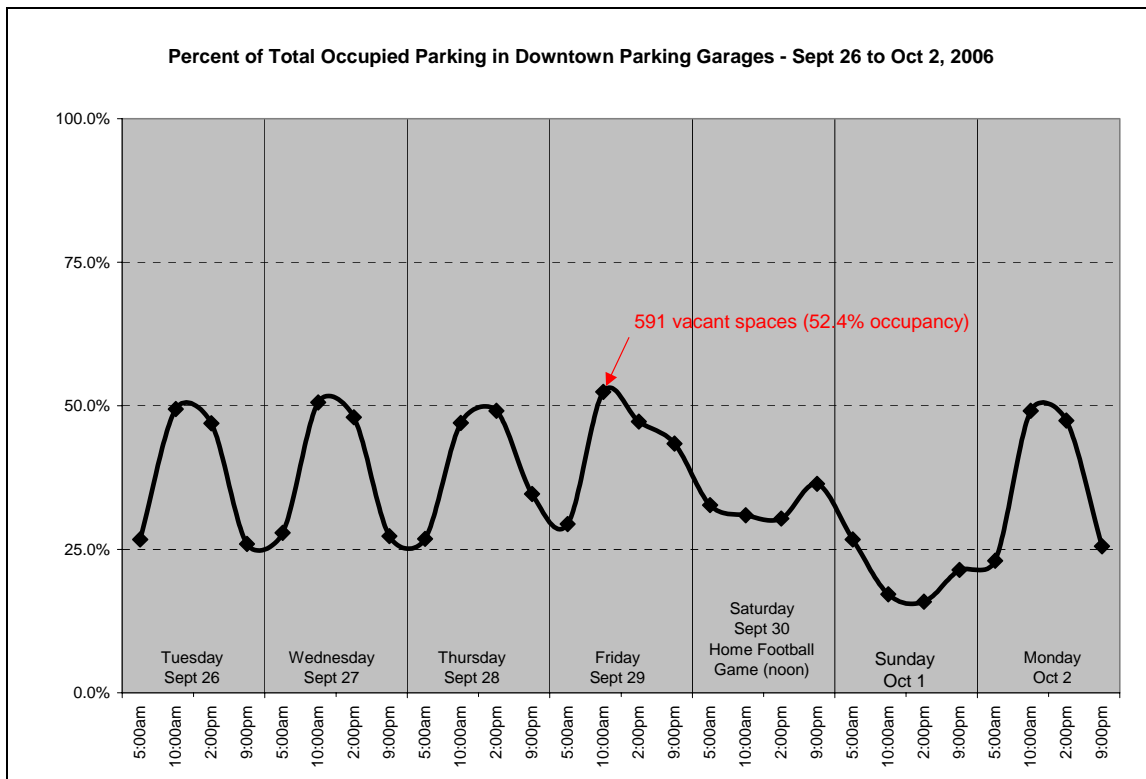
The following is a brief report on the findings and recommendations of the BTOP 2006 Parking Garage Survey. This survey was performed from Tuesday, Sept 26 to Monday, Oct 2, 2006, a full 7 days. The occupied and vacant spaces in the three downtown public garages were mapped and counted at 4 times of the day, at approximately 5:00am, 10:00am, 2:00pm and 9:00pm for each of the 7 days. A time was chosen for the survey when vacations are rare, the semester is firmly going, and people have generally settled into their driving and parking habits for the year. We also made sure there was an IU home football game over the weekend.

The Garages

The oldest garage is located at 4th and Walnut. It contains 341 spaces and is used almost exclusively during the day for business purposes; this report refers to this garage as the “4th St. garage.” The 7th and Walnut garage was built next and contains 365 spaces. It has some residential and business users; this is referred to as the “Walnut garage.” The most recently built garage is on 7th and Morton. It contains 536 spaces and has a mix of residential, business and hotel users; this is referred to as the “Morton garage.” The total number of spaces for the three garages is 1242 spaces. All three garages have some metered parking for visitors; none have free parking during the day.

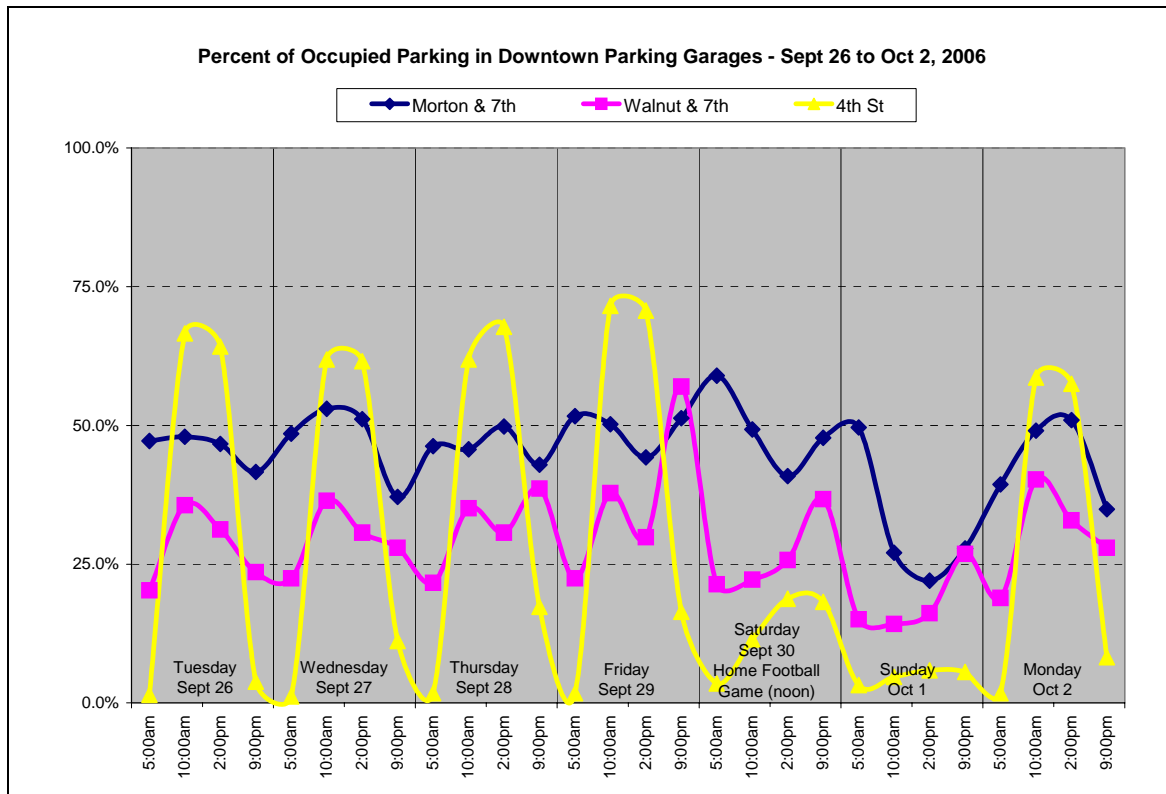
The Results

The following graph shows the total occupancy of the three garages:



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The total occupancy generally ran from 25% in the evenings to 50% during a 24 hour period. The peak use occurred on Friday mid-morning with 52.4% occupancy; 651 occupied spaces and 591 vacant spaces.

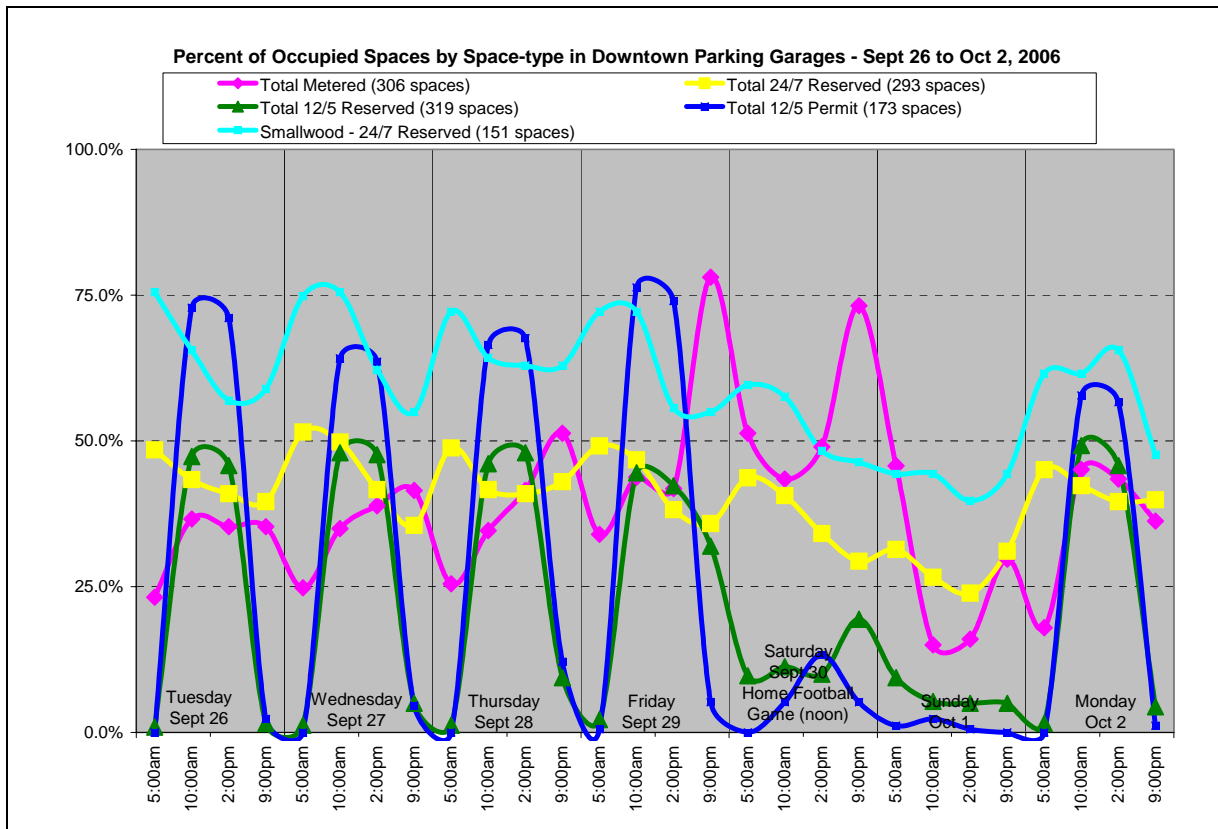


The above graph shows the occupancy of the three different garages. The Morton garage runs consistently around 50% occupied; residents and hotel guests leave while employees and customers arrive in the morning. The Walnut garage has the smallest use of the three. It runs around 35% during the days and peaks Thursday, Friday and Saturday evenings due to its proximity to night life, breaking 50% only on Friday night. The 4th St. garage has no residential users so it is virtually empty at night. It has an occupancy rate in the low 60% range during the day. It peaked on Friday morning at 71.6%, leaving still 97 spaces vacant. See appendix A for detailed data and appendix B for additional graphs of each individual parking garage.

Parking Space Types

There are generally 4 types of spaces that are sold in the parking garages, metered spaces (for retail customers and visitors), 24/7 reserved spaces (generally for residents-\$675/yr), 12/5 reserved spaces (for employee/office users - \$550/yr) and 12/5 permit spaces (also for employee/office users - \$400/yr). The difference between a “reserved” and a “permit” space is that a reserved space is specifically leased by a user and no one else can park there, while a permit holder does not lease a specific space, but has an area of spaces in which he/she is permitted to park; only the 4th Street garage has permit spaces.

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The above graph shows the different space-types. Smallwood spaces, although they are 24/7 reserved spaces, are graphed separately; they seem to have an unusually high occupancy rate relative to other 24/7 reserved spaces.

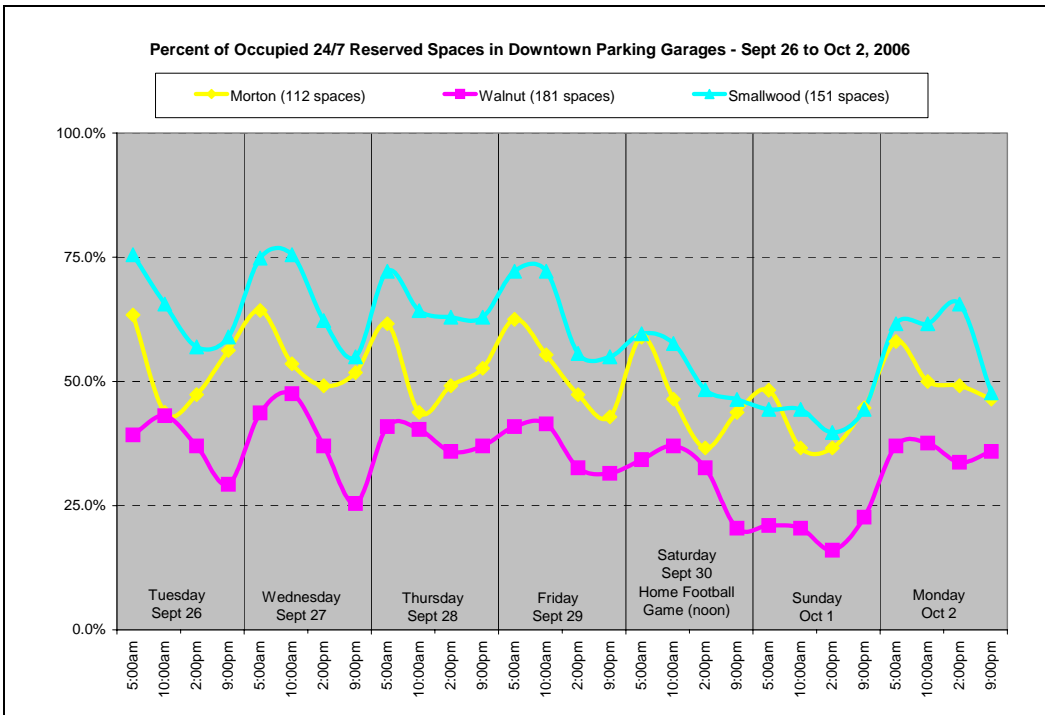
In general, the space-types that have the lowest occupancy rate are reserved spaces and metered spaces. Overall, the 24/7 reserved spaces (non-Smallwood) and the 12/5 reserved spaces both run below 50%, and reach about 50% occupancy at peak times. The 12/5 permit spaces were more utilized, peaking around 75% on two weekdays. The metered spaces also run well below 50% and only go above 50% in the evening when there is no cost for metered spaces and the 12/5 spaces are empty and legally useable.

In the case of the 12/5 permit spaces where occupancy rates were the highest, there are 173 spaces and 207 permits had been issued. This shared-parking option makes spaces available to more people, improves the occupancy rate, and, if managed/priced correctly, never leaves any permit holder without a space. Even at the peak occupancy, 41 of 173 spaces were still vacant, so many more permits could be issued without concern for leaving a permit holder without a space.

24/7 Reserved Spaces

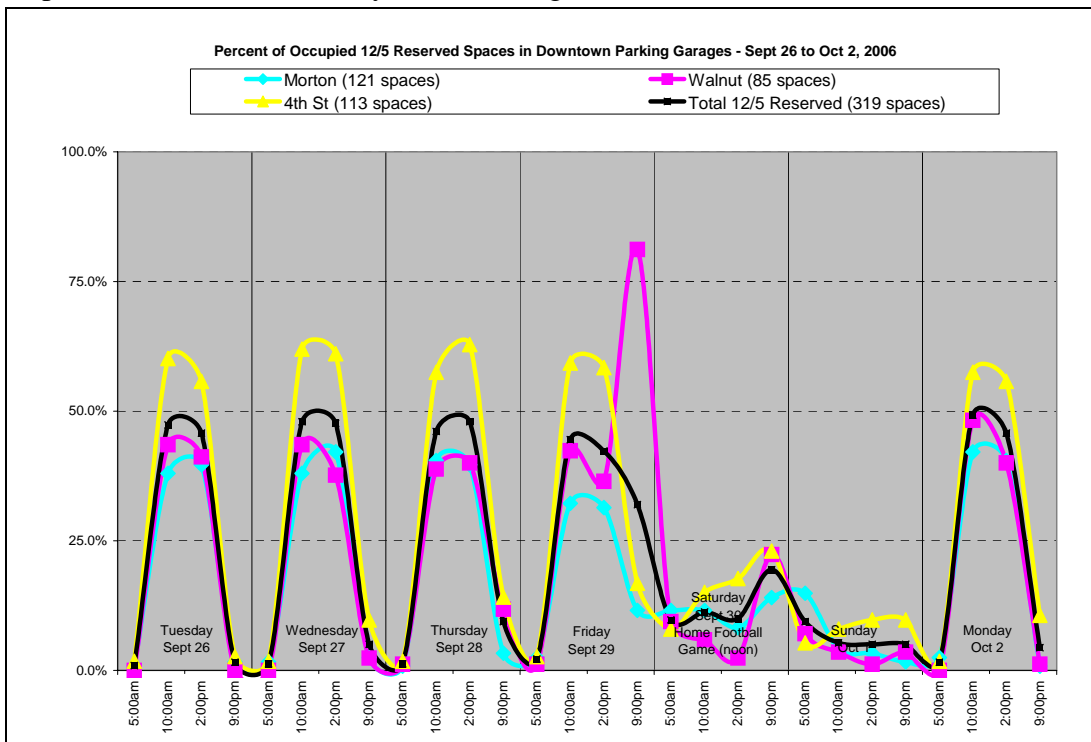
The 4th Street garage has no 24/7 reserved spaces. Walnut has 181 such spaces with very low occupancy; the average daily peak was around 40%, with the highest at 47.5%. Morton has 264 total, 121 reserved spaces for multiple purposes and 143 for Smallwood. Each of these has fairly different occupancy rates throughout the week. They are shown on the graph below. By far the least utilized are in the Walnut lot.

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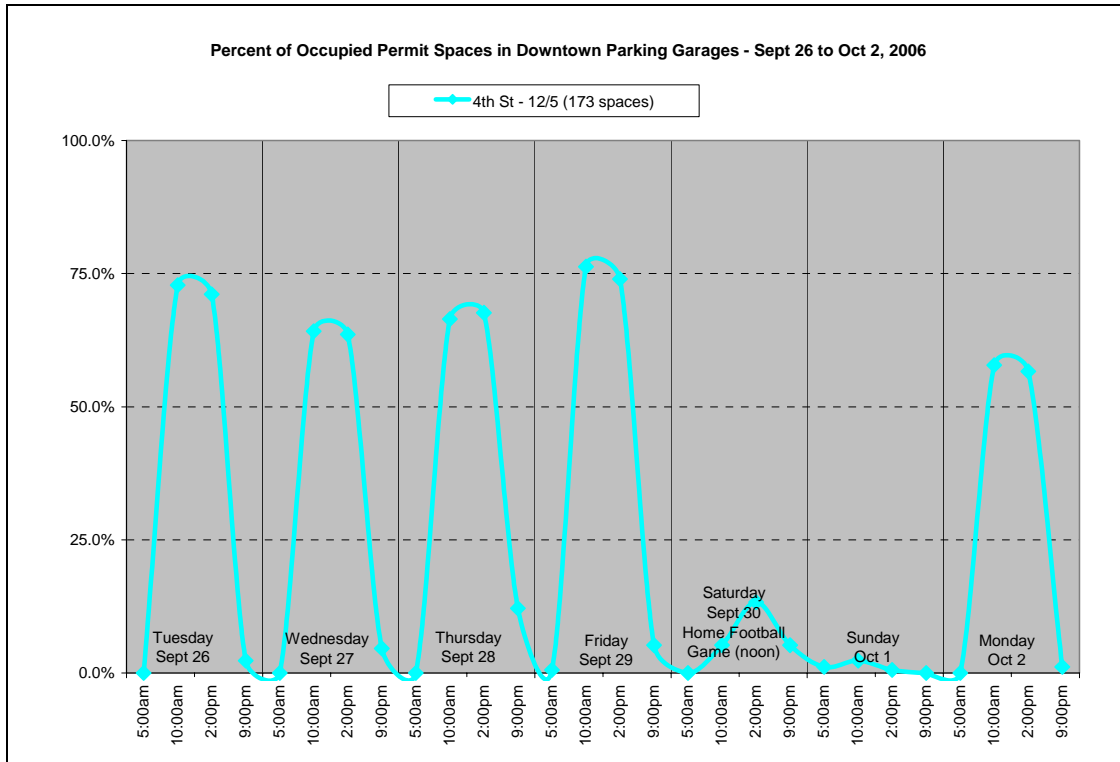
12/5 Reserved Spaces

The occupancy rate of 12/5-reserved spaces is quite low. Both the Morton and the Walnut garages have a peak occupancy of below 50%. Only the 4th Street garage peak occupancy exceeds 50%, running near 60% most weekdays with a high of 62.8% on Thursday afternoon. The graph below contains an occupancy curve of all the 12/5 reserved spaces in all three garages (the black line). The peak occupancy of all these spaces is 49.2% on Monday mid-morning.



12/5 Permit Spaces

Permit spaces only exist in the 4th Street garage. The occupancy rate of these is higher than any other space-type. The peak occupancy rate was 76.3% on Friday mid-morning. As noted, there are 207 permits issued for 173 spaces; this is a permit-to-space ratio of 1.2. At peak occupancy, only 132 spaces were occupied; this is a permit/occupied-space ratio of 1.6. These ratios can be used to determine the number of permits that can be sold for efficient use of the spaces.



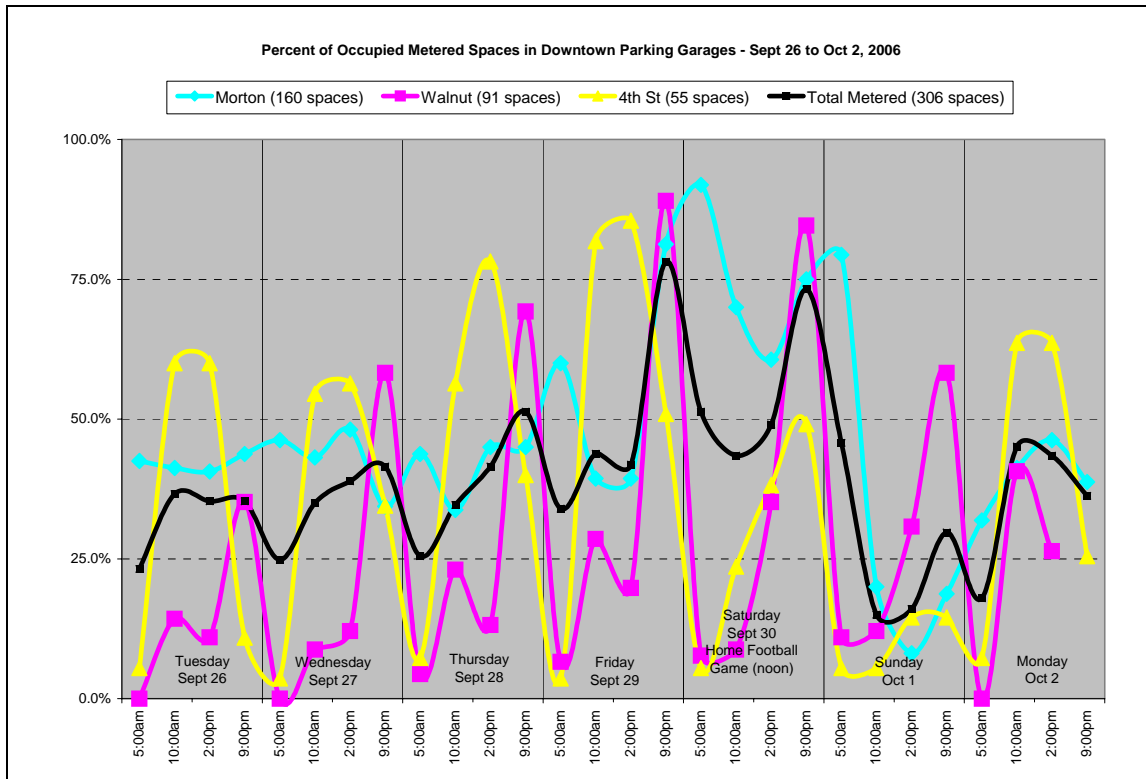
Metered Spaces

Metered spaces were also under-utilized. The black line in the graph below represents the occupancy of all the metered spaces in the 3 garages. The Walnut garage metered spaces get full in the evenings due to its proximity to popular night-life venues. At that time, the parking is free (meters need not be fed after 5:00pm), and the 12/5 reserved spaces are also legal available and vacant. The survey data indicate there are more metered spaces than necessary; however, the peak use during the day (when they are not free) is over lunch, and the survey did not cover the lunch period. This probably should be done before determining the optimum number of spaces.

In the Morton garage, the peaks occurred during the football weekend when hotel occupancy was high. Also, during this time, the 12/5 reserved spaces are legally available and vacant. Some of the metered spaces in the Morton garage are actually paid for as a 24/7 reserved space by the hotel, although they are not marked as such.

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The 4th Street metered spaces get a higher peak use than the others, although there are only 55 spaces. On Friday, the peak occupancy was 85.5%, although most days the spaces were under-utilized at around 60%.



Parking Garage Costs

Our best estimation of the public subsidy necessary to support these parking garages is based on data acquired from the city and an estimation of maintenance costs.¹ These projected 2006 costs are detailed in Appendix C. The city pays the developers of the Walnut and Morton garages a monthly payment based on their cost of the parking garage portion of their development; these total \$282,126 and \$492,042, respectively. The 4th Street garage is fully paid for. This is basically a rent-to-own plan with 30-year payment plans. Also, the city is responsible for all maintenance duties and costs. The annual maintenance costs are estimated at \$131,400 and \$192,960, respectively, and \$122,760 for the 4th Street garage. The 2006 revenues are projected at \$226,414, \$350,381 and \$162,015, respectively. Thus, the total estimated public subsidy for the three garages comes to \$482,279/year.

Parking Garage Demand (Waiting lists)

As of Oct 16th, 18 people were on the waiting list for the Walnut garage, 19 for the Morton garage, and 31 for the 4th Street garage, while 35 others await spaces in city

¹ Maintenance costs: Administration, cleaning, insurance, lighting, maintenance, revenue collection and security; estimated by Dr. Shoup in his book "The High Cost of Free Parking" at \$33/space in 2002 dollars in Los Angeles, CA. We estimate \$30/space in 2006 in Bloomington.

surface lots in the downtown area, for a total additional demand of 103. Certainly, these individuals can be accommodated in the 591 spaces available.

Conclusions

Parking spaces in the three downtown parking garages are highly under-utilized. However, virtually all leaseable spaces are leased and there are waiting lists at each garage. This indicates that the way the city is managing the parking needs to be reevaluated. In general, the reserved-space system is not producing good utility of spaces, metered parking is highly underused, and the city is subsidizing these garages at great public expense.

The on-street parking in downtown streets on or near the square is commonly at 100% occupancy during the day. Although BTOP has neither collected nor seen specific data to this effect, the Downtown Plan alludes to this and states that streets just outside this area are relatively empty. In addition, there is evidence that downtown employees and some downtown residents regularly park in the coveted customer-oriented spaces on or near the square, taking up valuable customer parking and contributing to the perception that downtown parking is at capacity, and to a real loss of downtown customers.

A reasonable policy would be one that encourages the distribution of employees and residents into the empty garage spaces, provides garage spaces to those on the waiting lists, and still provides additional capacity for large events and for future development downtown. This would reduce garage vacancies, reduce the city's subsidy for parking, increase the availability of on-street spaces for customers, and still leave a significant amount of garage spaces for additional development and large events. The following recommendations are steps toward this goal.

Recommendations

Although there are many things that can be adjusted to improve the utility of these parking facilities, we only list those that we believe are firmly evident from this survey. As things change in parking and the downtown, so will the dynamic between surface parking and garage parking. Continuous adjustments will be needed to optimize facility use, improve transportation options and affect the desired mode-choice for downtown users.

1. Reserved spaces should be changed to permit spaces in all cases.

Reserved spaces automatically mean low occupancy and thus require more constructed spaces in the downtown than necessary. Permit spaces allow the occupancies to be much higher without leaving anyone without a space. This can be controlled by restricting the number of permits issued and by pricing permits accordingly. The mall does not provide reserved parking spaces; on-street parking does not provide reserved parking spaces. Virtually no one has a reserved space anywhere except homeowners with their own off-street parking. The city should not finance parking spaces, or use limited downtown development capital and space on a system that guarantees wasted resources. The efficient way to use this parking and still guarantee the users a parking space is through a

permitting system. This system requires monitoring of occupancy to determine the number of permits that can be issued without exceeding the supply.

2. Price and quantity of space-types should be adjusted according to demand.

Currently, the price for permit parking (\$400/yr) is significantly less than reserved parking. Prices should be determined by the market's supply and demand. Pricing can be done on a per garage basis as at the University of Wisconsin, each garage having a different supply and demand, with prices differing accordingly to maintain a certain occupancy rate. Or, in our case, the supply of each space-type can be adjusted so the same price works for all garages. Where prices are now \$675 for a 24/7 reserved space or \$550 for a 12/5 reserved space, these need not change if a permit system is invoked. There is a demand at this price and there are people on waiting lists willing to pay these prices when space becomes available. Those that currently pay these prices will no longer know exactly in what spot they will park, but they can be confident a space will be available upon their arrival.

3. Parking on the Courthouse Square should be metered.

The ultimate solution to much of the downtown parking issue would be solved by metering the downtown square and other high-occupancy, on-street parking. This would encourage some of the non-customer users to park in the parking garages. Many spaces would then become available to customers. This would eliminate the perception that there is no parking downtown and would draw customers that do not shop downtown because of this perception. Likewise, it improves the turn-over and thus can accommodate more customers. This also generates money that can be used to improve the downtown square. Retailers may see this as a loss of convenience to their customers, but in fact, the opposite has been shown and is well documented.² Indianapolis has recently successfully experimented with two parking-meter systems, one that is best for angled parking and another that works well with parallel parking.

4. The quantity of metered spaces in the garages should be reduced.

The metered spaces are under-utilized in all garages, especially in the Walnut garage.³ The graphs show metered spaces are near capacity on some evenings, but at those times 12/5 spaces are available as well, so only daytime occupancy needs to be a concern. Peak day occupancy of these spaces is quite low, so for the garages where there is a waiting list for 12/5 or 24/7 spaces, changing metered to other space-types would satisfy that demand without inconvenience to anyone.

² "Turning Small Change into Big Changes," Douglas Kolozsvari and Donald Shoup, *Access*, No. 23, Fall 2003, pp. 2-7. <http://shoup.bol.ucla.edu/SmallChange.pdf>

³ This survey did not cover the lunch hour; an additional survey should be performed at the Walnut garage to determine lunch-time occupancy of the metered spaces.

Appendix A

Data Summaries from Survey

Appendix A

Summary Page																														
	Tue				Wed				Thu				Fri				Sat				Sun				Mon					
	5:00am	0:00am	2:00pm	9:00pm	5:00am	0:00am	2:00pm	9:00pm	5:00am	0:00am	2:00pm	9:00pm	5:00am	0:00am	2:00pm	9:00pm	5:00am	0:00am	2:00pm	9:00pm	5:00am	0:00am	2:00pm	9:00pm	5:00am	0:00am	2:00pm	9:00pm		
Morton & 7th	536	47.2%	47.9%	46.6%	41.6%	48.5%	53.0%	51.1%	37.1%	46.3%	45.7%	49.8%	42.9%	51.7%	50.2%	44.2%	51.3%	59.0%	49.3%	40.9%	47.8%	49.6%	27.1%	22.0%	27.8%	39.4%	49.1%	50.9%	34.9%	
Walnut & 7th	365	20.3%	35.6%	31.2%	23.6%	22.5%	36.4%	30.7%	27.9%	21.6%	35.1%	30.7%	38.6%	22.5%	37.8%	29.9%	57.0%	21.4%	22.2%	25.8%	36.7%	15.1%	14.2%	16.2%	26.8%	18.9%	40.3%	32.9%	27.9%	
4th St	341	1.5%	66.6%	64.2%	3.8%	1.2%	61.9%	61.6%	11.1%	1.8%	61.9%	67.7%	17.3%	1.8%	71.6%	70.7%	16.4%	3.5%	11.4%	18.8%	18.2%	3.2%	4.7%	5.9%	5.6%	1.8%	58.7%	57.5%	8.2%	
total	1242	332	614	583	322	346	628	596	339	333	584	610	430	365	651	587	539	406	384	377	452	332	213	197	266	286	610	589	317	
% occupied		26.7%	49.4%	46.9%	25.9%	27.9%	50.6%	48.0%	27.3%	26.8%	47.0%	49.1%	34.6%	29.4%	52.4%	47.3%	43.4%	32.7%	30.9%	30.4%	36.4%	26.7%	17.1%	15.9%	21.4%	23.0%	49.1%	47.4%	25.5%	
total vacant		910	628	659	920	896	614	646	903	909	658	632	812	877	591	655	703	836	858	865	790	910	1029	1045	976	956	632	653	925	
By Space-type																														
	Tue				Wed				Thu				Fri				Sat				Sun				Mon					
	5:00am	0:00am	2:00pm	9:00pm	5:00am	0:00am	2:00pm	9:00pm	5:00am	0:00am	2:00pm	9:00pm	5:00am	0:00am	2:00pm	9:00pm	5:00am	0:00am	2:00pm	9:00pm	5:00am	0:00am	2:00pm	9:00pm	5:00am	0:00am	2:00pm	9:00pm		
12/5 Reserved																														
Morton & 7th	121	1	46	48	2	2	46	51	3	1	49	48	4	3	39	38	14	14	10	17	18	5	4	2	3	51	49	1		
Walnut & 7th	85	0	37	35	0	0	37	32	2	1	33	34	10	1	36	31	69	8	5	2	19	6	3	1	3	0	41	34	1	
4th St	113	2	68	63	3	2	70	69	11	2	65	71	16	3	67	66	19	9	17	20	26	6	9	11	11	2	65	63	12	
total	319	3	151	146	5	4	153	152	16	4	147	153	30	7	142	135	102	31	36	32	62	30	17	16	16	5	157	146	14	
Morton (121 spaces)		0.8%	38.0%	39.7%	1.7%	1.7%	38.0%	42.1%	2.5%	0.8%	40.5%	39.7%	3.3%	2.5%	32.2%	31.4%	11.6%	11.6%	11.6%	8.3%	14.0%	14.9%	4.1%	3.3%	1.7%	2.5%	42.1%	40.5%	0.8%	
Walnut (85 spaces)		0.0%	43.5%	41.2%	0.0%	0.0%	43.5%	37.6%	2.4%	1.2%	38.8%	40.0%	11.8%	1.2%	42.4%	36.5%	81.2%	9.4%	5.9%	2.4%	22.4%	7.1%	3.5%	1.2%	3.5%	0.0%	48.2%	40.0%	1.2%	
4th St (113 spaces)		1.8%	60.2%	55.8%	2.7%	1.8%	61.9%	61.1%	9.7%	1.8%	57.5%	62.8%	14.2%	2.7%	59.3%	58.4%	16.8%	8.0%	15.0%	17.7%	23.0%	5.3%	8.0%	9.7%	9.7%	1.8%	57.5%	55.8%	10.6%	
Total 12/5 Reserved (319 spaces)		0.9%	47.3%	45.8%	1.6%	1.3%	48.0%	47.6%	5.0%	1.3%	46.1%	48.0%	9.4%	2.2%	44.5%	42.3%	32.0%	9.7%	11.3%	10.0%	19.4%	9.4%	5.3%	5.0%	5.0%	1.6%	49.2%	45.8%	4.4%	
Metered																														
Morton & 7th	160	68	66	65	70	74	69	77	55	70	54	72	72	96	63	63	130	147	112	97	120	127	32	13	30	51	66	74	62	
Walnut & 7th	91	0	13	10	32	0	8	11	53	4	21	12	63	6	26	18	81	7	8	32	77	10	11	28	53	0	37	24	35	
4th St	55	3	33	33	6	2	30	31	19	4	31	43	22	2	45	47	28	3	13	21	27	3	3	8	8	4	35	35	14	
total	306	71	112	108	108	76	107	119	127	78	106	127	157	104	134	128	239	157	133	150	224	140	46	49	91	55	138	133	111	
Morton (160 spaces)		42.5%	41.3%	40.6%	43.8%	46.3%	43.1%	48.1%	34.4%	43.8%	33.8%	45.0%	45.0%	60.0%	39.4%	39.4%	81.3%	91.9%	70.0%	60.6%	75.0%	79.4%	20.0%	8.1%	18.8%	31.9%	41.3%	46.3%	38.8%	
Walnut (91 spaces)		0.0%	14.3%	11.0%	35.2%	0.0%	8.8%	12.1%	58.2%	4.4%	23.1%	13.2%	69.2%	6.6%	28.6%	19.8%	89.0%	7.7%	8.8%	35.2%	84.6%	11.0%	12.1%	30.8%	58.2%	0.0%	40.7%	26.4%	38.5%	
4th St (55 spaces)		5.5%	60.0%	60.0%	10.9%	3.6%	54.5%	56.4%	34.5%	7.3%	56.4%	78.2%	40.0%	3.6%	81.8%	85.5%	50.9%	5.5%	23.6%	38.2%	49.1%	5.5%	5.5%	14.5%	14.5%	7.3%	63.6%	63.6%	25.5%	
Total Metered (306 spaces)		23.2%	36.6%	35.3%	35.3%	24.8%	35.0%	38.9%	41.5%	25.5%	34.6%	41.5%	51.3%	34.0%	43.8%	41.8%	78.1%	51.3%	43.5%	49.0%	73.2%	45.8%	15.0%	16.0%	29.7%	18.0%	45.1%	43.5%	36.3%	
24/7 Reserved (not including Smallwood)																														
Morton & 7th	112	71	49	53	63	72	60	55	58	69	49	55	59	70	62	53	48	66	52	41	49	54	41	41	50	65	56	55	52	
Walnut & 7th	181	71	78	67	53	79	86	67	46	74	73	65	67	74	75	59	57	62	67	59	37	38	37	29	41	67	68	61	65	
total	293	142	127	120	116	151	146	122	104	143	122	120	126	144	137	112	105	128	119	100	86	92	78	70	91	132	124	116	117	
Morton (112 spaces)		63.4%	43.8%	47.3%	56.3%	64.3%	53.6%	49.1%	51.8%	61.6%	43.8%	49.1%	52.7%	62.5%	55.4%	47.3%	42.9%	58.9%	46.4%	36.6%	43.8%	48.2%	36.6%	36.6%	44.6%	58.0%	50.0%	49.1%	46.4%	
Walnut (181 spaces)		39.2%	43.1%	37.0%	29.3%	43.6%	47.5%	37.0%	25.4%	40.9%	40.3%	35.9%	37.0%	40.9%	41.4%	32.6%	31.5%	34.3%	37.0%	32.6%	20.4%	21.0%	20.4%	16.0%	22.7%	37.0%	37.6%	33.7%	35.9%	
Total 24/7 Reserved (293 spaces)		48.5%	43.3%	41.0%	39.6%	51.5%	49.8%	41.6%	35.5%	48.8%	41.6%	41.0%	43.0%	49.1%	46.8%	38.2%	35.8%	43.7%	40.6%	34.1%	29.4%	31.4%	26.6%	23.9%	31.1%	45.1%	42.3%	39.6%	39.9%	
Permit Spaces																														
4th St - 12/5 (173 spaces)	173	0	126	123	4	0	111	110	8	0	115	117	21	1	132	128	9	0	9	23	9	2	4	1	0	0	100	98	2	
Total 12/5 Permit (173 spaces)	173	0	126	123	4	0	111	110	8	0	115	117	21	1	132	128	9	0	9	23	9	2	4	1	0	0	100	98	2	
4th St - 12/5 (173 spaces)		0.0%	72.8%	71.1%	2.3%	0.0%	64.2%	63.6%	4.6%	0.0%	66.5%	67.6%	12.1%	0.6%	76.3%	74.0%	5.2%	0.0%	5.2%	13.3%	5.2%	1.2%	2.3%	0.6%	0.0%	0.0%	57.8%	56.6%	1.2%	
Smallwood																														
Smallwood (151 spaces)	151	114	99	86	89	113	114	94	83	109	97	95	95	109	109	84	83	90	87	73	70	67	67	60	67	93	93	99	72	
Smallwood - 24/7 Reserved (151 spaces)		75.5%	65.6%	57.0%	58.9%	74.8%	75.5%	62.3%	55.0%	72.2%	64.2%	62.9%	62.9%	72.2%	72.2%	55.6%	55.0%	59.6%	57.6%	48.3%	46.4%	44.4%	44.4%	39.7%	44.4%	61.6%	61.6%	65.6%	47.7%	

Appendix A

4th Street			9/26/2006 - 10/2/2006																																		
			9/26/2006				9/27/2006				9/28/2006				9/29/2006				9/30/2006				10/1/2006				10/2/2006										
			spaces		Tue		Wed		Thu		Fri		Sat		Sun		Mon																				
Basement	1	42	42	1	21	17	2	1	26	25	1	1	24	26	1	1	20	23	1	1	1	1	0	0	0	0	0	0	28	23	0						
	43	80	38	1	20	19	1	1	21	22	2	1	17	24	3	2	21	19	2	1	2	2	1	1	1	1	1	2	13	18	2						
level 1	81	113+4	37	0	27	27	0	0	23	22	8	0	24	21	12	0	26	24	16	7	14	17	25	5	8	10	10	0	24	22	11						
	10	17	27	1	14	12	4	1	9	9	18	3	9	22	21	1	24	25	23	2	13	20	26	2	2	7	8	3	14	14	10						
level 2	17	23	40	2	20	22	2	1	23	22	4	1	20	23	5	1	34	35	8	1	1	4	5	3	4	2	0	1	23	26	3						
	17	20	37	0	33	32	0	0	27	31	1	0	33	29	3	1	35	30	0	0	0	1	3	0	0	0	0	0	30	24	1						
level 3	17	23	40	0	40	38	2	0	38	39	3	0	40	39	9	0	40	38	3	0	7	13	0	0	1	0	0	0	38	35	1						
	17	20	37	0	32	35	1	0	34	30	1	0	33	32	4	0	35	37	1	0	1	6	2	0	0	0	0	0	26	31	0						
level 4	20	23	43	0	20	17	1	0	10	10	0	0	11	15	1	0	9	10	2	0	0	0	0	0	0	0	0	0	4	3	0						
total	341	5	227	219	13	4	211	210	38	6	211	231	59	6	244	241	56	12	39	64	62	11	16	20	19	6	200	196	28								
all occupied		1.5%	66.6%	64.2%	3.8%	1.2%	61.9%	61.6%	11.1%	1.8%	61.9%	67.7%	17.3%	1.8%	71.6%	70.7%	16.4%	3.5%	11.4%	18.8%	18.2%	3.2%	4.7%	5.9%	5.6%	1.8%	58.7%	57.5%	8.2%								

Appendix A

Walnut			9/26/2006				9/27/2006				9/28/2006				9/29/2006				9/30/2006				10/1/2006				10/2/2006			
			Tue				Wed				Thu				Fri				Sat				Sun				Mon			
spaces			5:10am	12:00pm	2:30pm	9:25pm	5:45am	10:30am	2:00pm	8:30pm	5:15am	11:00am	2:40pm	9:15pm	5:20am	10:00am	3:00pm	9:50pm	5:20am	1:00am	2:25pm	9:20pm	6:00am	1:00am	2:30pm	9:05pm	5:20am	1:40am	3:00pm	9:15pm
100	132	33	3	12	11	26	3	9	13	30	1	16	11	28	3	16	17	29	2	6	23	29	5	10	18	27	2	27	19	28
200	232	33	0	3	1	7	0	1	0	21	2	6	2	23	3	11	2	25	3	1	9	25	3	0	10	14	0	11	6	8
233	270	38	0	6	7	0	0	7	6	3	1	2	3	14	1	5	5	38	3	2	1	30	3	2	1	14	0	8	4	0
300	336	37	0	21	20	0	0	19	15	2	1	18	19	7	1	20	17	36	4	2	1	13	6	3	1	2	0	22	20	1
337	374	38	0	10	8	0	0	11	11	0	0	13	12	2	0	11	9	23	4	3	1	0	0	0	0	0	0	11	10	0
400	436	37	19	16	11	7	19	14	10	8	17	12	11	14	13	9	8	10	13	13	8	2	6	6	4	4	12	11	11	8
437	474	38	12	11	10	10	14	14	9	10	16	7	8	13	14	12	14	14	13	13	12	10	11	10	8	10	17	10	10	11
500	536	37	16	15	15	18	20	16	15	13	15	15	12	19	20	15	12	15	17	16	15	10	11	10	8	10	17	17	13	26
537	574	38	7	15	11	4	9	18	14	3	6	15	13	5	8	16	11	6	6	13	13	4	2	3	3	3	4	12	7	5
600	638	39	17	21	20	14	17	24	19	12	20	24	21	16	19	23	14	12	13	12	11	11	8	8	6	12	17	18	20	15
	total	365	74	130	114	86	82	133	112	102	79	128	112	141	82	138	109	208	78	81	94	134	55	52	59	98	69	147	120	102
all	occupied		20.3%	35.6%	31.2%	23.6%	22.5%	36.4%	30.7%	27.9%	21.6%	35.1%	30.7%	38.6%	22.5%	37.8%	29.9%	57.0%	21.4%	22.2%	25.8%	36.7%	15.1%	14.2%	16.2%	26.8%	18.9%	40.3%	32.9%	27.9%
114	118	3	3	2	2	1	3	2	2	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1
5-5 / 6 metered																														
100	132(-3)	30	0	10	9	25	0	7	11	29	1	15	10	27	2	15	16	28	1	5	22	28	4	9	17	26	0	26	18	27
200	232	33	0	3	1	7	0	1	0	21	2	6	2	23	3	11	2	25	3	1	9	25	3	0	10	14	0	11	6	8
233	260	28	0	0	0	0	0	0	0	3	1	0	0	13	1	0	0	28	3	2	1	24	3	2	1	13	0	0	0	0
261	270	10	0	6	7	0	0	7	6	0	0	2	3	1	0	5	5	10	0	0	0	6	0	0	0	1	0	8	4	0
300	336	37	0	21	20	0	0	19	15	2	1	18	19	7	1	20	17	36	4	2	1	13	6	3	1	2	0	22	20	1
337	374	38	0	10	8	0	0	11	11	0	0	13	12	2	0	11	9	23	4	3	1	0	0	0	0	0	0	11	10	0
400	436	37	19	16	11	7	19	14	10	8	17	12	11	14	13	9	8	10	13	13	8	2	6	6	4	4	12	11	11	8
437	474	38	12	11	10	10	14	14	9	10	16	7	8	13	14	12	14	14	13	13	12	10	11	10	8	10	17	10	10	11
500	536	37	16	15	15	18	20	16	15	13	15	15	12	19	20	15	12	15	17	16	15	10	11	10	8	10	17	17	13	26
537	574	38	7	15	11	4	9	18	14	3	6	15	13	5	8	16	11	6	6	13	13	4	2	3	3	3	4	12	7	5
600	630	31	16	18	18	13	16	19	16	12	19	20	18	16	18	19	13	12	12	11	9	11	8	8	6	12	16	15	16	15
631	638	8	1	3	2	1	1	5	3	0	1	4	3	0	1	4	1	0	1	1	2	0	0	0	0	0	1	3	4	0
12/6 meter		91	0	13	10	32	0	8	11	53	4	21	12	63	6	26	18	81	7	8	32	77	10	11	28	53	0	37	24	35
12/5 Reserve		85	0	37	35	0	0	37	32	2	1	33	34	10	1	36	31	69	8	5	2	19	6	3	1	3	0	41	34	1
24/7 Reserve		181	71	78	67	53	79	86	67	46	74	73	65	67	74	75	59	57	62	67	59	37	38	37	29	41	67	68	61	65
Smallwood		8	1	3	2	1	1	5	3	0	1	4	3	0	1	4	1	0	1	1	2	0	0	0	0	0	1	3	4	0
	total	365	72	131	114	86	80	136	113	101	80	131	114	140	82	141	109	207	78	81	95	133	54	51	58	97	68	149	123	101
12/6 Meter (91 spaces)		0%	14%	11%	35%	0%	9%	12%	58%	4%	23%	13%	69%	7%	29%	20%	89%	8%	9%	35%	85%	11%	12%	31%	58%	0%	41%	26%	38%	
12/5 Reserve (85 spaces)		0%	44%	41%	0%	0%	44%	38%	2%	1%	39%	40%	12%	1%	42%	36%	81%	9%	6%	2%	22%	7%	4%	1%	4%	0%	48%	40%	1%	
24/7 Reserve (181 spaces)		39%	43%	37%	29%	44%	48%	37%	25%	41%	40%	36%	37%	41%	41%	33%	31%	34%	37%	33%	20%	21%	20%	16%	23%	37%	38%	34%	36%	
Smallwood (8 spaces)		12.5%	37.5%	25.0%	12.5%	12.5%	62.5%	37.5%	0.0%	12.5%	50.0%	37.5%	0.0%	12.5%	50.0%	12.5%	0.0%	12.5%	12.5%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	37.5%	50.0%	0.0%	
	total		19.7%	35.9%	31.2%	23.6%	21.9%	37.3%	31.0%	27.7%	21.9%	35.9%	31.2%	38.4%	22.5%	38.6%	29.9%	56.7%	21.4%	22.2%	26.0%	36.4%	14.8%	14.0%	15.9%	26.6%	18.6%	40.8%	33.7%	27.7%
total from both garages																														
Smallwood		151	114	99	86	89	113	114	94	83	109	97	95	95	109	109	84	83	90	87	73	70	67	67	60	67	93	93	99	72
			75%	66%	57%	59%	75%	75%	62%	55%	72%	64%	63%	63%	72%	72%	56%	55%	60%	58%	48%	46%	44%	44%	40%	44%	62%	62%	66%	48%

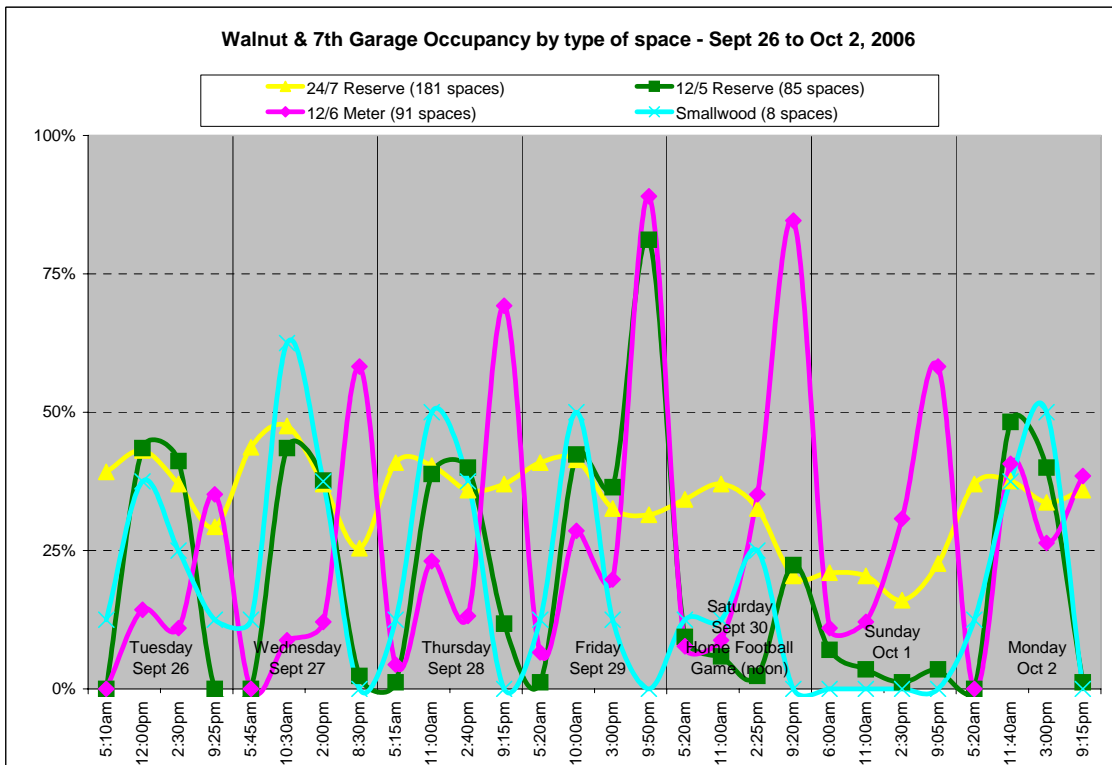
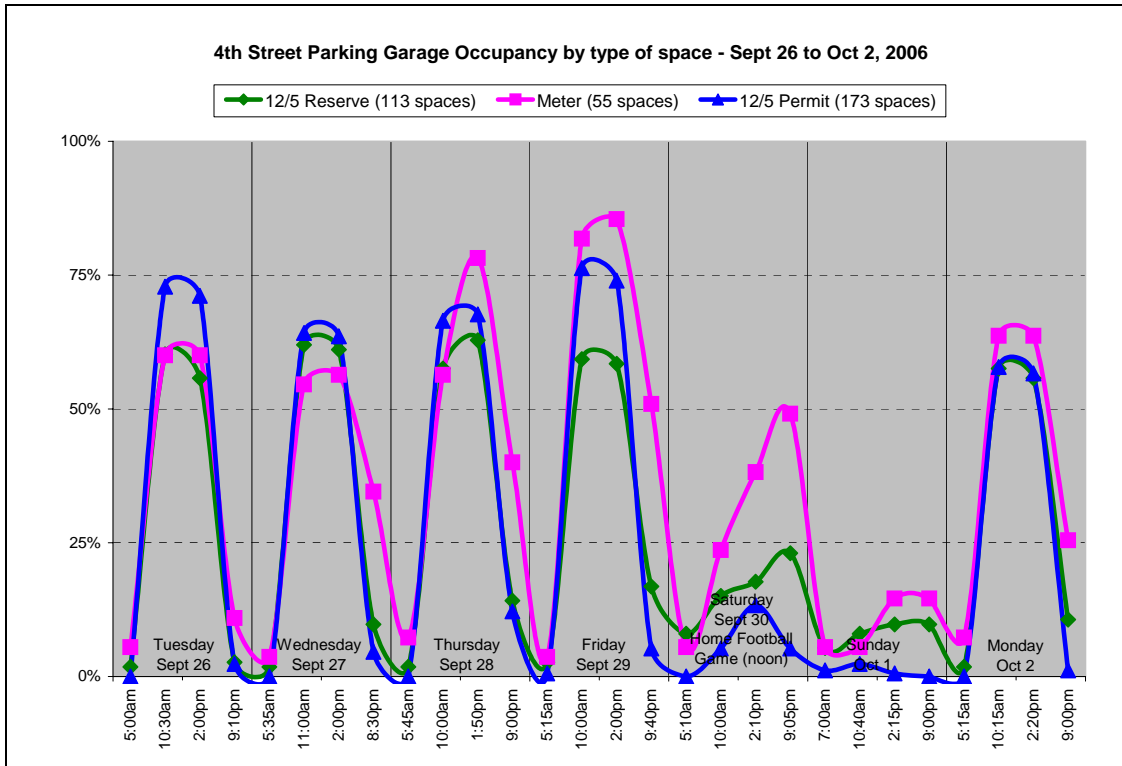
Appendix A

Morton			9/26/2006				9/27/06				9/28/06				9/29/06				9/30/06				10/1/06				10/2/06			
			Tue		Wed		Thu		Fri		Sat		Sun		Mon															
spaces			5:20am	12:40pm	2:30pm	9:40pm	5:55am	10:00am	2:30pm	8:30pm	5:25am	10:30am	2:20pm	9:30pm	5:30am	10:40am	2:30pm	10:10pm	5:30am	10:15am	2:40pm	9:35pm	6:25am	1:30am	2:55pm	9:20pm	5:30am	10:50am	2:30pm	9:30pm
101	112	12	2	3	2	0	1	2	5	4	2	4	5	1	1	0	2	1	1	1	1	2	0	1	1	1	1	4	2	
113	144	32	5	14	16	5	7	17	17	8	6	13	20	5	7	20	17	5	7	6	4	5	6	7	4	5	6	14	15	4
200	233	34	34	32	33	33	32	32	33	32	34	23	33	30	34	31	28	33	34	30	31	34	28	10	7	20	32	26	30	30
234	268	35	26	23	22	28	27	23	27	17	27	19	22	28	33	20	26	32	34	29	24	29	30	11	7	9	14	24	28	21
300	334	35	12	19	18	9	11	20	25	7	9	17	20	15	19	13	16	32	33	27	21	34	30	3	2	5	7	19	18	10
335	369	35	10	7	7	11	13	7	6	8	8	4	4	12	19	9	6	33	31	22	21	24	29	9	5	5	7	10	10	7
400	434	35	0	0	0	1	2	2	1	1	1	1	1	1	4	4	2	21	31	17	8	17	25	7	1	0	2	2	1	
435	469	35	23	12	15	22	24	14	13	14	24	13	14	21	23	14	12	14	28	21	17	15	21	11	11	13	21	13	15	18
500	534	35	0	14	18	0	1	17	20	2	0	21	18	0	0	18	19	1	2	2	1	0	1	1	0	0	0	20	18	0
535	569	35	7	16	14	6	7	12	14	5	7	14	13	4	6	12	7	4	5	5	5	6	8	5	6	4	6	14	13	3
600	634	35	1	11	11	1	1	13	10	1	1	10	11	1	1	11	8	2	2	3	3	2	2	1	1	1	1	11	10	1
635	669	35	20	10	10	19	22	16	12	17	21	13	14	17	22	12	11	14	19	15	12	19	17	13	13	19	24	17	15	18
700	734	35	32	23	21	21	31	30	27	25	30	26	22	24	29	27	21	22	24	24	20	21	20	21	19	19	28	25	25	17
735	769	35	30	28	24	25	30	26	23	19	27	30	26	26	28	26	17	24	25	23	20	20	19	18	17	18	25	23	21	19
800	834	35	24	23	20	21	25	27	22	19	24	23	22	22	24	21	16	18	18	15	13	13	13	12	15	18	23	30	19	
835	872	38	27	22	19	21	26	26	19	20	27	14	22	23	29	28	24	21	22	21	16	16	15	15	12	15	21	19	19	17
	total	536	253	257	250	223	260	284	274	199	248	245	267	230	277	269	237	275	316	264	219	256	266	145	118	149	211	263	273	187
all	occupied		47.2%	47.9%	46.6%	41.6%	48.5%	53.0%	51.1%	37.1%	46.3%	45.7%	49.8%	42.9%	51.7%	50.2%	44.2%	51.3%	59.0%	49.3%	40.9%	47.8%	49.6%	27.1%	22.0%	27.8%	39.4%	49.1%	50.9%	34.9%
101	103	3	2	1	0	0	1	1	1	2	2	0	0	1	1	0	2	1	1	1	1	1	0	1	1	1	1	1	1	2
104	109	6	0	0	0	0	0	0	1	2	0	2	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
110	112	3	0	2	2	0	0	1	3	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0
113	144	32	5	14	16	5	7	17	17	8	6	13	20	5	7	20	17	5	7	6	4	5	6	7	4	5	6	14	15	4
200	233	34	34	32	33	33	32	32	33	32	34	23	33	30	34	31	28	33	34	30	31	34	28	10	7	20	32	26	30	30
234	268(-8)	27	18	18	18	20	22	18	22	11	20	14	18	23	27	16	20	27	27	24	21	25	25	6	2	3	8	21	25	17
250	257	8	8	5	4	8	5	5	5	6	7	5	4	5	6	4	6	5	7	5	3	4	5	5	5	6	6	3	3	4
300	334(-12)	23	12	12	11	9	11	13	17	7	9	11	13	13	18	7	10	21	23	18	15	22	19	2	2	5	7	11	10	10
304	315	12	0	7	7	0	0	7	8	0	0	6	7	2	1	6	6	11	10	9	6	12	11	1	0	0	0	8	8	0
335	369(-8)	27	2	3	2	5	5	3	2	1	2	1	2	4	11	4	1	27	25	18	17	19	23	4	0	1	2	5	6	2
351	358	8	8	4	5	6	8	4	4	7	6	3	2	8	8	5	5	6	6	4	4	5	6	5	5	4	5	4	5	
400	434	35	0	0	0	1	2	2	1	1	1	1	1	1	4	4	2	21	31	17	8	17	25	7	1	0	0	2	2	1
435	442	8	2	1	1	2	2	1	1	1	4	2	2	1	2	1	2	1	7	5	5	3	6	3	1	1	2	1	1	2
443	469	27	21	11	14	20	22	13	12	13	20	11	12	20	21	13	10	13	21	16	12	12	15	8	10	12	19	12	14	16
500	534	35	0	14	18	0	1	17	20	2	0	21	18	0	0	18	19	1	2	2	1	0	1	1	0	0	0	20	18	0
535	569(-8)	27	0	9	7	0	0	6	8	0	0	7	7	0	0	4	4	0	-1	-1	-1	2	3	1	2	0	0	8	8	0
551	558	8	7	7	7	6	7	6	6	5	7	7	6	4	6	8	3	4	6	6	6	4	5	4	4	4	6	6	5	3
600	634	35	1	11	11	1	1	13	10	1	1	10	11	1	1	11	8	2	2	3	3	2	2	1	1	1	1	11	10	1
635	643	9	0	3	3	1	0	2	2	0	0	3	3	1	1	0	1	0	1	1	1	1	1	1	1	1	2	2	0	0
644	669	26	20	7	7	18	22	14	10	17	21	10	11	16	21	12	10	14	18	14	11	18	16	12	12	18	22	15	13	18
700	734	35	32	23	21	21	31	30	27	25	30	26	22	24	29	27	21	22	24	24	20	21	20	21	19	19	28	25	25	17
735	769	35	30	28	24	25	30	26	23	19	27	30	26	26	28	26	17	24	25	23	20	20	19	18	17	18	25	23	21	19
800	834	35	24	23	20	21	25	27	22	19	24	23	22	22	24	21	16	18	18	15	13	13	13	12	15	18	23	30	19	
835	872	38	27	22	19	21	26	26	19	20	27	14	22	23	29	28	24	21	22	21	16	16	15	15	12	15	21	19	19	17
24/7 Reserve		112	71	49	53	63	72	60	55	58	69	49	55	59	70	62	53	48	66	52	41	49	54	41	41	50	65	56	55	52
Auto/Meter		160	68	66	65	70	74	69	77	55	70	54	72	72	96	63	63	130	147	112	97	120	127	32	13	30	51	66	74	62
12/5 Reserve		121	1	46	48	2	2	46	51	3	1	49	48	4	3	39	38	14	14	14	10	17	18	5	4	2	3	51	49	1
Smallwood		143	113	96	84	88	112	109	91	83	108	93	92	95	108	105	83	83	89	86	71	70	67	67	60	67	92	90	95	72
	total	536	253	257	250	223	260	284	274	199	248	245	267	230	277	269	237	275	316	264	219	256	266	145	118	149	211	263	273	187
24/7 Reserve (112 spaces)		63%	44%	47%	56%	64%	54%	49%	52%	62%	44%	49%	53%	63%	55%	47%	43%	59%	46%	37%	44%	48%	37%	37%	45%	58%	50%	49%	46%	
Auto/Meter (160 spaces)		43%	41%	41%	44%	46%	43%	48%	34%	44%	45%	45%	60%	39%	39%	81%	92%	70%	61%	75%	79%	20%	8%	19%	32%	41%	46%	39%		
12/5 Reserve (121 spaces)		1%	38%	40%	2%	2%	38%	42%	2%	1%	40%	40%	3%	2%	32%	31%	12%	12%	8%	14%	15%	4%	3%	2%	2%	42%	40%	1%		
Smallwood (143 spaces)		79%	67%	59%	62%	78%	76%	64%	58%	76%	65%	64%	66%	76%	73%	58%	58%	62%	60%	50%	49%	47%	47%	42%	47%	64%	63%	66%	50%	
	total	47%	48%	47%	42%	49%	53%	51%	37%	46%	46%	50%	43%	52%	50%	44%	51%	59%	49%	41%	48%	50%	27%	22%	28%	39%	49%	51%	35%	

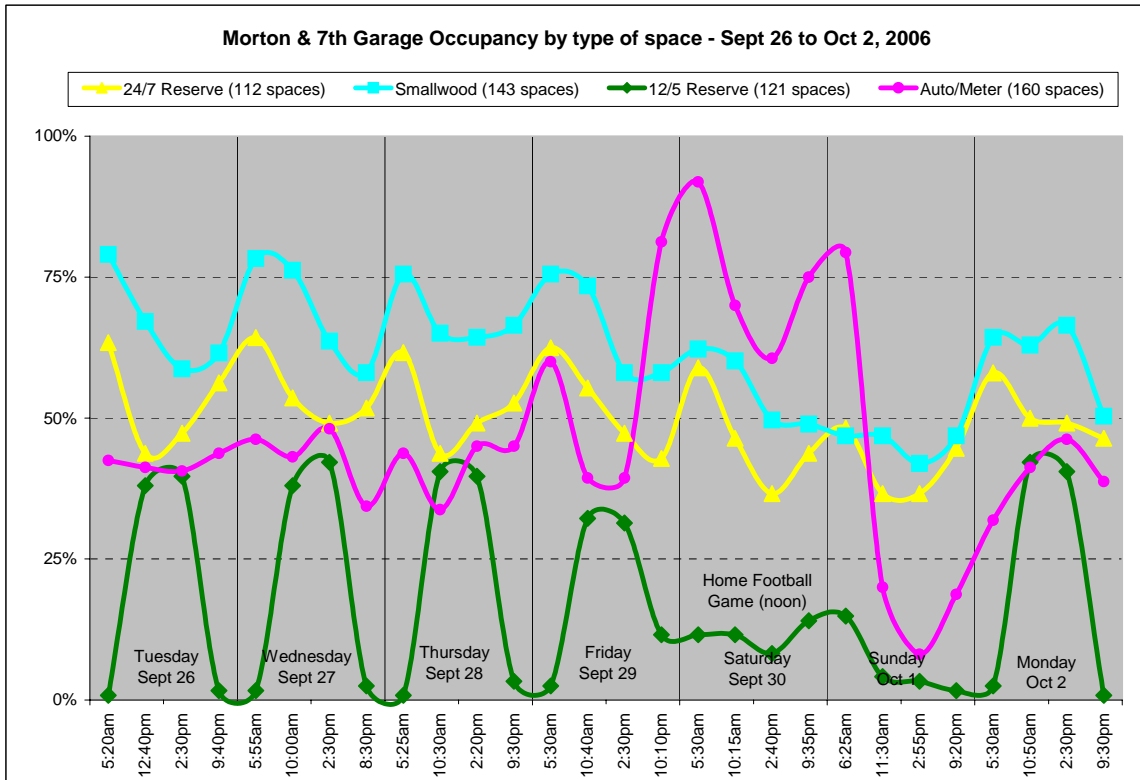
Appendix B

Graphs of each Garage by Space-type

Appendix B



Appendix B



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Appendix C

Parking Garage Public Subsidy Estimates for 2006

Appendix C

Parking Garage Public Subsidy Estimates for 2006

Walnut	revenue/space	spaces	monthly exp	annual exp	annual receipts	total
city payments			\$23,510.50	\$282,126		
avg per space			\$64.41	\$772.95		
24/7 Reserved	\$675	189			\$127,575	
12/5 Reserved	\$550	85			\$46,750	\$174,325
Metered ¹	\$572	91			\$52,089	
		365			\$226,414	
maintenance ²	\$30		\$10,950	\$131,400		
balance						(\$187,113)
Morton						
city payment			\$41,003.53	\$492,042		
avg per space			\$76.50	\$917.99		
24/7 Reserved	\$675	255			\$172,125	
12/5 Reserved	\$550	121			\$66,550	\$238,675
Metered (incl. Hotel) * 1	\$404	160			\$64,656	
Hotel's leased/metered*	\$675	70			\$47,250	
total		536			\$350,581	
maintenance ²	\$30		\$16,080	\$192,960		
avg total per space				\$1,278		
balance						(\$334,421)
total of two garages						(\$521,534)
4th St						
city payment			\$0.00	\$0.00		
12/5 Permit	\$400	173	207		\$82,800	
12/5 Reserved	\$550	113			\$62,150	\$144,950
Metered ¹	\$310	55			\$17,065	
total		341			\$162,015	
maintenance ²	\$30		\$10,230	\$122,760.00		
balance						\$39,255
mortgage prmts				\$774,168		
maintenance				\$447,120		
total				\$1,221,288		
rental receipts					\$739,009	
annual balance						(\$482,279)

Blue numbers were gathered from the city.

¹Metered: Actual 2006 quarter 1&2 receipts were gathered from city and have been doubled to estimate full year.

*70 of the 160 "metered" spaces in Morton are rented by the Hotel at the 24/7 rate (\$675).

Permit receipts are based on statements from the city that all reserved spots are leased.

²Maintenance costs: Administration, cleaning, insurance, lighting, maintenance, revenue collection and security; estimated by Shoup at \$33/space in 2002 dollars in Los Angeles, Ca. ; I estimate \$30 in 2006 in Blgtn

All other data were gathered from BTOP's survey

Revenue from parking fines and the cost of parking enforcement are not included in this analysis.

Actual Parking Garage Revenues

Hourly (Metered)	2005	1/1/06 - 6/30/06	2006 estimates ¹
# 2 - 7th & Walnut	\$ 61,276.00	\$ 26,044.25	\$52,088.50
# 7 - Regester	\$ 38,497.00	\$ 32,328.13	\$64,656.26
# 9 - 4th & Walnut	\$ 17,375.00	\$ 8,532.36	\$17,064.72
sub total	\$ 117,148.00	\$ 66,904.74	\$133,809.48
Lot Specific Permits			
# 2 - 7th & Walnut	\$ 205,388.00	\$ 70,431.30	
# 7 - Regester	\$ 309,186.00	\$ 176,785.27	
# 9 - 4th & Walnut	\$ 153,057.00	\$ 59,121.50	
sub total	\$ 667,631.00	\$ 306,338.07	
total	\$ 784,779.00	\$ 373,242.81	

These data provided by the City Controller

¹To estimate 2006, the first half revenues are doubled.