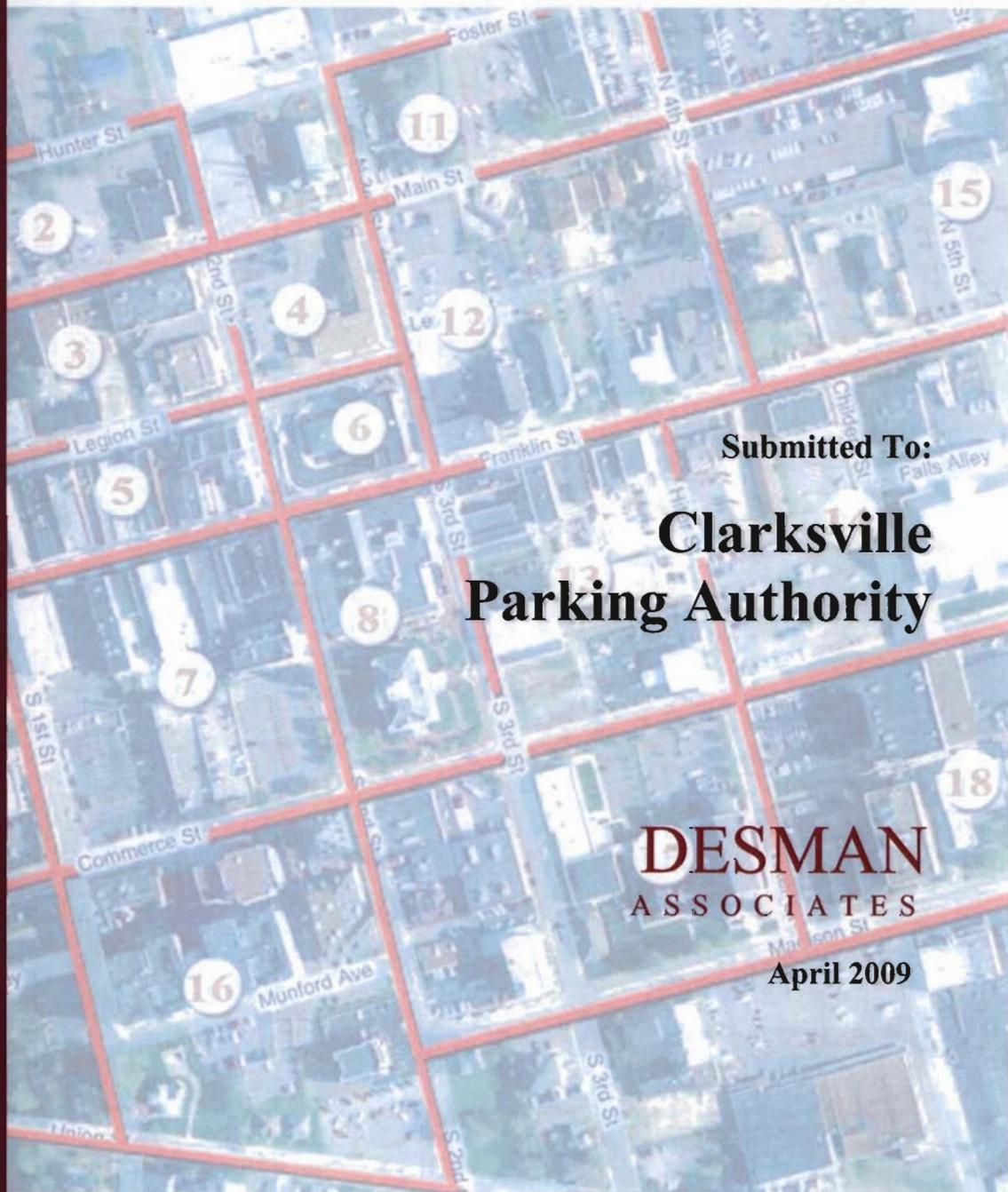


# Draft of the Final Report Downtown Parking Study Clarksville, Tennessee



Submitted To:

**Clarksville  
Parking Authority**

**DESMAN**  
ASSOCIATES

April 2009

## EXECUTIVE SUMMARY

DESMAN Associates has been retained by the City of Clarksville Parking Authority to assess current and future public parking supply and deficit conditions, prepare a preliminary evaluation of structured parking opportunities, and provide recommendations regarding operations, management, and technology costs and benefits. Additionally, DESMAN was asked to determine if the parking authority form of management and governance as currently constructed is capable of sustaining and growing the public parking system as the demand for parking and the need for change grows.

In order to address these issues, this report is divided into six sections:

- Section 1 - Introduction/Study Area Boundary
- Section 2 - Assessment of Existing Conditions
- Section 3 - Assessment of Future Parking Conditions
- Section 4 - Structures parking opportunities
- Section 5 - Operational Assessment and Recommendations
- Section 6 - Parking System Cost and Rate Recommendation

### **Assessment of Existing & Future Supply/Demand Conditions**

System-wide there are 1,052 on and off street parking spaces in the downtown area. Of these spaces, 805 (76%) are off-street and 247 (24%) are on-street spaces.

Of the total of 805 off-street spaces, 53% are reserved/restricted to permit holders, fleet vehicles and government workers and 29% are for two-hour parking. Only 18% of the off-street spaces are available for mid and long-term parkers (more than 2 hours). Two-hour metered spaces account for 85% of the total on-street inventory.

Hourly parking occupancy surveys of both publicly available off-street and on-street parking spaces were conducted from 8AM to 5PM on Thursday, November 13th and Friday, November 14th to capture typical court day and a non court day parking activity.

The overall parking system experiences its peak occupancy at 9AM on both days. On Thursday, 54% of the publicly available parking spaces were occupied. Parking occupancy peaked at 55% on Friday.

The Downtown study area has a practical surplus of 376 spaces on Thursday and 363 spaces on Friday. Note that though the system-wide analysis identified a practical surplus, the utilization of 4-hour and 10-hour metered spaces in off-street facilities approached 100% occupancy.

In addition to public parking, utilization data for private off-street lots was also recorded. The data illustrates a much different situation than publicly available facilities in terms of occupancy percentages as only 24% of the 1,681 private/restricted spaces in the study area were occupied during the peak period on both Thursday and Friday.

Clarksville does not currently have a shortage of publicly available parking spaces. However, the system over subscribes to short-term parking (2 hours or less) and long-term parking (monthly permit holders and reserved/fleet vehicles) and under subscribes to mid-term parkers. As a result, there is a perception that there is insufficient parking for individuals who wish to park for longer than 2 hours.

Future parking surplus/deficit conditions were calculated by layering parking demand associated with known, proposed or potential development activity. Apart from some discussion of the Roxy Theater, conversations with the Parking Authority, City, downtown stakeholders, and the regional planning commission did not yield specific information on pending development and redevelopment projects. As such, the study is unable to identify the parking impact associated with specific developments or in individual city blocks.

However, there is subjective evidence that the core of the downtown could theoretically support an estimated 175,000 square feet of infill development and re-occupancy of vacant commercial buildings. This would generate a demand for 570 parking spaces. The current public on and off-street facilities within a 2 block radius of the core can only absorb an additional demand for 239 spaces. Therefore, compared to 570 future development demand and the estimated loss of 57 spaces due to development, there could be a 388 space deficit in the core study area.

### **Structured Parking Opportunities**

As the analysis of future parking deficit conditions is theoretical DESMAN suggests that additional structured parking is not warranted at this time. Existing public parking facilities are strategically located within the downtown and have, at present, sufficient capacity to meet current and near-term need. However, the opportunity to expand the capacity of parking in downtown was evaluated. Based on functional concepts and FY2009 construction cost figures, structured parking opportunities and limitations for four sites in the downtown were presented.

The City Hall lot (Site A) could potentially support 320 spaces at an estimated cost of \$5.07 million, the site at the 1<sup>st</sup> Street and Legion Street block (Site B) could potentially support 360 spaces at an estimate cost of \$6.85 million, the Miller lot (Cumberland Plaza Deck II, Site C) could potentially support 388 spaces at an estimated cost of \$6.12 million, and the Hiter Street/Baptist Church lot (Site D) could potentially support 640 spaces with an estimate of \$9.60 million.

### **Operational Assessments and Recommendations**

With no dedicated staff, Clarksville Parking Authority operates as an Enterprise Fund and does not follow the typical organizational structure of a full service authority. Presently, the Parking Authority contracts with the City's Finance and Revenue Department to oversee and manage daily parking operations and, therefore, day-to-day decision making depends on various City agencies.

Though hand-held enforcement devices are not being utilized to the extent desired, the current parking enforcement program appears effective as few surveyed vehicles exceeded posted time limits. However, only 61 % of the citations that were issued were paid. A 75-80% collection percentage is recommended.

Based on the operational conditions found in the City of Clarksville and the fact that the traditional definition and organizational structure of a parking authority in other cities has proven to be the most effective, it is recommended that the City of Clarksville maintain its parking authority approach to oversight of its parking program.

However, to maximize its effectiveness, the Parking Authority must begin to take a more proactive roll in managing daily field operations through in-house management and formally contracted operations. To achieve this goal, the Clarksville Parking Authority must establish an in-house Parking Manager position

who reports directly to the Chairman of the Parking Authority. With the retention of a Parking Manager, the Parking Authority must make the following changes:

- *The Parking Authority should focus solely on the downtown business district and rely on the Police Department to enforce parking regulations outside the downtown.*
- *Privatize basic parking management functions (cleaning, facility maintenance, etc.) through public bidding and contract management.*
- *Increase the fine for overtime parking from \$10 to \$15. Increase all other fine categories accordingly.*
- *Create a long-term maintenance reserve fund for periodic evaluation, maintenance, and restoration of its structured and surface parking facilities.*
- *Gradually phase in the use of multi-space meters for the on-street program as finances and management knowledge grow over time.*
- *With the hiring of a Parking Manager, streamline and de-personalize the permit appeals process.*
- *Eliminate all reserved parking, whether it is by stall, section or parking lot in the permit parking lots.*
- *Require each person who purchases or uses a parking permit to fill out a registration/agreement form prior to being allowed to park.*
- *Discontinue offering discounts for the purchase of multiple permits.*
- *Install a gated system in Cumberland Plaza Garage in order to allow for the most effective method of access and revenue control. The cost for this type of system is estimated at \$365,200.*
- *Implement a merchant validation program in connection with improvements made to Cumberland Plaza Garage*

### **Parking System Costs & Rate Recommendations**

The City's Finance and Revenue Department projected that for FY2009 the Parking Authority would have \$356,900 in operating expenses, including debt service, and would generate revenues of \$397,000. This would create an annual operating profit of \$40,100 and support an End of Year cash balance of \$348,100.

To determine if the various management, staffing, equipment, and rate recommendations could be supported by downtown Clarksville's current level of economic vitality, all of the existing, projected, and estimated costs and revenues for parking improvements were layered upon the existing financial statement and projected through FY2018.

Coupled with recommended increases in operating budgets, a long-term maintenance reserve fund, and the salary/benefits for the parking manager, the FY2010 operating cost of the parking system would increase to \$527,500.

Off-street metered parking rates must remain at \$0.50 per hour during the first year and increase in coordination with the \$0.75 per hour on-street rate increase overtime. It is also suggested that monthly parking rates increase by \$10 across the board in FY2010 and increase annually to a stabilized rate of \$60 to \$80 per month by FY2015 depending on location.

With these modest rate increases the Parking Authority will nonetheless experience an annual operating loss of \$60,400 in FY2010, reducing their End of Year balance to \$287,700. FY2011 capital costs

associated with access and revenue control system installation/maintenance would create an operating loss of \$120,000, reducing the End of Year balance further to \$167,300.

Fortunately, the End of Year cash balance between FY2011 and FY2013 is able to absorb these additional costs. Beyond FY2013, gradual off-street rate increases and a second on-street rate increase will infuse necessary revenues into the system. It is projected that by FY2015 the End of Year cash balance will return to pre FY2010 levels (approximately \$278,000). That cash balance may be sufficient to incur the fiscal impact of annual debt service payments associated with a new or expanded parking structure that may be needed.

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## **SECTION 1 – INTRODUCTION**

DESMAN Associates was contracted by the Clarksville Parking Authority to perform a study of existing and future parking needs and assess the operational efficiency of the of the public parking system in downtown Clarksville. To achieve the goals of this study, the project methodology has been designed to be completed in the following five phases.

- Assessment of Existing Parking Conditions
- Assessment of Future Parking Conditions
- Structured Parking Opportunities
- Operational Assessment & Recommendations
- Parking System Costs & Rate Recommendations

### **1.0 Study Area**

The downtown study area as illustrated in Exhibit A includes office, retail, restaurant, institutional (City Hall and Courthouse) and religious land uses. In order to identify parts of the study area that experienced the most stress, and to evaluate the relationship between land use and parking activity, the study area was divided into 20 blocks.

*Exhibit A: Study Area Boundaries and Block Groups*



## **SECTION 2 – ASSESSMENT OF EXISTING CONDITIONS**

### **1.0 Existing Parking Supply**

The parking supply in Clarksville consists of publicly available off-street parking facilities (surface lots and two parking structures), private/restricted off-street parking and on-street spaces. Publicly available parking is defined as those spaces available to the general public regardless of trip purpose. Thus, a publicly available lot or structure could be publicly or privately owned and operated. In contrast, private/restricted parking is only available to specific users. An example would be the Madison Street Methodist Church lot that is reserved specifically for its congregation or the F&M lot, which is reserved exclusively for bank patrons and employees; all other users are prohibited. On-street parking is available to anyone regardless of trip purpose. These definitions are important when determining a downtown's available parking supply and therefore, peak period surplus or deficit conditions. Parking which is restricted to specific users cannot be counted on to satisfy the larger needs of the general public. As such, the purpose of this study is on the utilization and management of publicly available on and off-street parking facilities

#### **1.1 Publicly Available Off-street Parking**

A detailed inventory of public and private lots and structures for all on and off-street parking spaces within the study area was collected on November 13<sup>th</sup>. Exhibit B identifies the location of all publicly available and private/restricted parking by block. The publicly available facilities are coded green and the private/restricted lots are coded yellow.

*Exhibit B: Study Area Publicly Available Parking and Private/Restricted Lots*



Table 1 presents the current inventory of publicly available off-street parking by block, lot code/name and restriction, while Exhibit C illustrates the percentage breakdown of such restrictions. Presently, there are 805 publicly available off-street parking spaces in the study area of which 550 (68%) are reserved/restricted to specific user groups. For instance all 37 parking spaces on level 5 of the Cumberland garage are reserved for county employees. Out of the remaining 255 publicly available off-street spaces 37% are dedicated to 2-hour, 25% to 4 hour and 37% to 10-hour metered spaces. With nearly 267 spaces, the Cumberland Garage (H) has the highest number of reserved/restricted spaces (171)

*Table 1: Publicly Available Off-street Parking Inventory*

Block Group	Code	Name	Reserved/Restricted	2 Hour	4 Hour	10 Hour	Total
1	A	City Hall					104
1	A1	( Visitor Lot)		33			33
1	A2	( Employee Lot)	71				71
6	K	Transit Lot	47				47
7	D	Roxy	43				43
7	E	Miller	28	15			43
7	F	Lower/Bigger	10	12			22
7	G	Back C Lot	22	12			34
7	H	Cumberland	171			96	267
7	Level 1A		16			10	26
7	Level 2					34	34
7	Level 2A		33				33
7	Level 3		34				34
7	Level 3A		36				36
7	Level 4					33	33
7	Level 4A		15			19	34
7	Level 5		37				37
7	I	Front C Lot			63		63
11	M	Main St Lot	45	24			69
12	N	Trinty Lot	19				19
12	L	3rd St. Lot	71				71
14	P	Franklin St Lot	23				23
<b>Total</b>			<b>550</b>	<b>96</b>	<b>63</b>	<b>96</b>	<b>805</b>
<b>Percentage</b>			<b>68%</b>	<b>12%</b>	<b>8%</b>	<b>12%</b>	<b>100%</b>

1052  
TOTAL

**1.2 On-street Parking**

Table 2 and Exhibit D illustrate the on-street parking inventory by restriction by block. Presently, there are 247 available on-street spaces in the study are. This inventory includes:

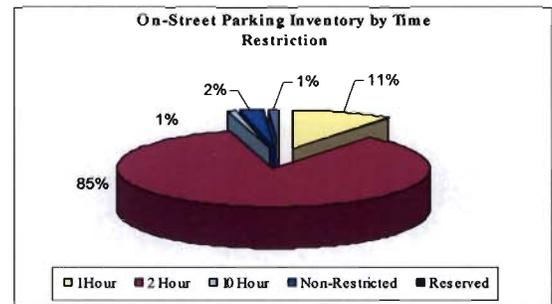
- 2-hour metered spaces
- 1- hour non-metered spaces
- Non restricted parking spaces on 1<sup>st</sup> St (Spaces with no meters)
- 10-hour meters on Franklin Street

The on-street parking inventory is dominated by two-hour metered spaces. Of the total 247 on-street spaces, 210 (85%) are 2-hour metered. The downtown study area also includes 26 1-hour non-metered spaces which count for 11% of the total on-street inventory. Exhibit E on the following page presents a graphic illustration of the location of on-street parking in downtown Clarksville. Large concentration of on-street spaces can be found on 1<sup>st</sup> Street, the Franklin Street corridor and Public Square.

*Table 2: On-street Parking Inventory*

Block Group	1 Hour	2 Hour	10 Hour	Non-Restricted	Reserved	Total
1		50				50
2		17		3		20
3	22	13		3	3	41
4		2				2
5		21				21
6	4	4				8
7		23				23
8		6				6
9		9				9
10		0				0
11		9				9
12		20				20
13		26	2			28
14		10				10
<b>Total</b>	<b>26</b>	<b>210</b>	<b>2</b>	<b>6</b>	<b>3</b>	<b>247</b>

*Exhibit D: Percentage breakdown of On-Street Parking by Time Restriction*



*Exhibit E: Study Area On-street Parking Inventory*



**2.0 Parking Utilization**

Parking occupancy surveys recorded the utilization of parking and identified the peak period of parking activity. Hourly utilization data for both publicly available off-street and on-street parking spaces was collected from 8AM to 5PM on Thursday, November 13<sup>th</sup> and Friday, November 14<sup>th</sup> to capture typical court day and a non court day parking activity. Tables 3a and 3b illustrate hourly utilization of publicly available off-street parking by facility and block group. Peak utilization occurs at 9:00 AM on both days. Of the 805 publicly available off-street spaces, 490 (61%) were occupied during the peak hour on Thursday and 479 (59%) were occupied during the peak period on Friday.

*Table 3a: Thursday Publicly Available Off-street Parking Occupancy*

Block Group	Code	Name	Inventory	8AM	9AM	10AM	11AM	12PM	1PM	2PM	3PM	4PM
1	A	City Hall	104	72	77	85	80	75	72	74	77	66
1	A1	( Visitor Lot)	33	9	11	15	16	14	11	13	16	9
1	A2	( Employee Lot)	71	63	66	70	64	61	61	61	61	57
6	K	Transit Lot	47	24	28	28	30	28	24	22	21	19
7	D	Roxy	43	19	19	19	19	18	18	20	22	19
7	E	Miller	43	9	10	10	7	6	10	12	14	14
7	F	Lower/Bigger	22	10	10	9	8	3	4	4	4	4
7	G	Back C Lot	34	19	21	16	8	5	11	8	4	4
7	H	Cumberland	267	184	203	155	144	129	145	134	128	118
7	Level 1A	Level 1A	26	8	10	8	7	10	9	9	10	10
7	Level 2	Level 2	34	20	23	7	6	1	2	2	3	5
7	Level 2A	Level 2A	33	25	27	26	23	22	23	23	23	22
7	Level 3	Level 3	34	23	23	23	20	23	24	23	23	18
7	Level 3A	Level 3A	36	27	29	27	27	23	26	26	26	26
7	Level 4	Level 4	33	30	32	14	13	9	18	12	8	5
7	Level 4A	Level 4A	34	20	27	19	19	14	14	10	6	4
7	Level 5	Level 5	37	31	32	31	29	27	29	29	29	28
7	I	Front C Lot	63	61	63	53	52	49	63	52	39	39
11	M	Main St Lot	69	10	11	13	20	8	9	8	7	8
12	N	Trinty Lot	19	9	10	10	10	11	11	11	7	8
12	L	3rd St. Lot	71	30	37	47	35	34	35	37	39	32
14	P	Franklin St Lot	23	1	1	3	4	6	8	7	6	5
<b>Total</b>			<b>805</b>	<b>448</b>	<b>490</b>	<b>448</b>	<b>417</b>	<b>371</b>	<b>410</b>	<b>389</b>	<b>368</b>	<b>336</b>

*Table 3b: Friday Publicly Available Off-street Parking Occupancy*

Block Group	Code	Name	Inventory	8AM	9AM	10AM	11AM	12PM	1PM	2PM	3PM	4PM
1	A	City Hall	104	65	71	82	83	77	74	70	69	62
1	A1	( Visitor Lot)	33	10	14	27	21	28	19	15	14	9
1	A2	( Employee Lot)	71	55	57	55	62	49	55	55	55	53
6	K	Transit Lot	47	30	37	22	27	32	16	16	17	11
7	D	Roxy	43	20	22	25	27	24	19	21	22	16
7	E	Miller	43	11	11	10	7	8	10	9	9	9
7	F	Lower/bigger	22	9	9	9	0	4	2	2	2	1
7	G	Back C Lot	34	13	14	16	7	3	2	2	3	3
7	H	Cumberland	267	174	187	174	138	115	116	117	120	103
7	Level 1A	Level 1A	26	10	12	12	8	8	9	13	17	10
7	Level 2	Level 2	34	15	16	14	4	3	1	2	3	4
7	Level 2A	Level 2A	33	24	25	26	24	22	22	23	24	21
7	Level 3	Level 3	34	25	26	25	23	18	20	18	17	16
7	Level 3A	Level 3A	36	29	30	29	27	22	23	24	26	25
7	Level 4	Level 4	33	25	30	21	7	5	3	2	2	2
7	Level 4A	Level 4A	34	18	19	17	17	14	13	11	8	7
7	Level 5	Level 5	37	28	29	30	28	23	25	24	23	18
7	I	Front C Lot	63	56	60	52	35	31	19	22	24	18
11	M	Main St Lot	69	7	7	5	8	7	5	4	4	5
12	N	Trinty Lot	19	41	43	46	42	38	26	30	34	19
12	L	3rd Street Lot	71	10	11	11	11	8	9	10	12	10
14	P	Franklin St Lot	23	3	7	11	9	12	10	9	10	9
<b>Total</b>			<b>805</b>	<b>439</b>	<b>479</b>	<b>463</b>	<b>394</b>	<b>359</b>	<b>308</b>	<b>312</b>	<b>326</b>	<b>266</b>

Tables 4a and 4b illustrate hourly on-street parking utilization by block. On-street parking utilization experienced a different peak occupancy time than off-street. 51% (127) of the available 247 on-street spaces were occupied during the peak period at 3:00 PM on Thursday. On Friday the highest occupancy was observed at 12:00 PM where 121 (49%) of 235 total on-street spaces were occupied.

*Table 4a: Thursday On-street Parking Occupancy*

Block Group	Inventory	8AM	9AM	10AM	11AM	12PM	1PM	2PM	3PM	4PM
1	50	11	13	14	14	16	20	20	20	16
2	20	0	0	0	0	3	0	0	1	2
3	41	6	7	8	22	20	17	19	20	18
4	2	1	2	2	1	1	2	1	1	1
5	21	14	14	17	16	17	21	20	20	19
6	8	4	5	4	4	4	4	4	4	5
7	23	5	6	15	10	17	17	13	15	12
8	6	2	3	4	4	6	4	4	5	6
9	9	2	4	6	5	8	5	6	7	6
10	0	0	0	0	0	0	0	0	0	0
11	9	0	0	0	0	0	0	1	1	1
12	20	8	10	14	7	2	9	11	13	9
13	28	16	18	21	12	10	19	19	19	13
14	10	0	0	0	1	1	1	1	1	0
<b>Total</b>	<b>247</b>	<b>69</b>	<b>82</b>	<b>105</b>	<b>96</b>	<b>105</b>	<b>119</b>	<b>119</b>	<b>127</b>	<b>108</b>

*Table 4b: Friday On-street Parking Occupancy*

Block Group	Inventory	8AM	9AM	10AM	11AM	12PM	1PM	2PM	3PM	4PM
1	50	10	13	13	14	25	15	13	12	19
2	20	0	1	0	0	1	0	0	0	0
3	41	13	16	20	21	26	23	23	25	24
4	2	1	1	1	1	1	1	1	1	1
5	21	11	14	15	20	22	19	15	13	17
6	8	2	2	2	7	2	2	1	1	1
7	23	16	18	18	18	20	17	17	17	19
8	6	3	4	0	2	5	4	3	2	6
9	9	4	5	4	8	4	5	4	3	6
10	0	0	0	0	0	0	0	0	0	0
11	9	0	0	0	0	0	0	0	0	0
12	20	10	14	8	11	2	4	5	6	3
13	28	15	17	16	12	11	6	8	10	12
14	10	0	1	1	2	2	2	2	1	1
<b>Total</b>	<b>247</b>	<b>85</b>	<b>106</b>	<b>98</b>	<b>116</b>	<b>121</b>	<b>98</b>	<b>92</b>	<b>91</b>	<b>109</b>

Tables 5a and 5b combine the on-street and off-street publicly available parking occupancy by block on Thursday and Friday respectively. The overall parking system experiences its peak occupancy at 9:00 AM on both days. On Thursday there is a 54% occupancy rate during the peak period as 572 of the available 1,052 spaces are occupied. Similarly, on Friday during the peak period, the overall parking system is 55% occupied. Exhibits F1 and F2 on the following page illustrate the system-wide pattern of utilization of publicly available off-street and on-street parking.

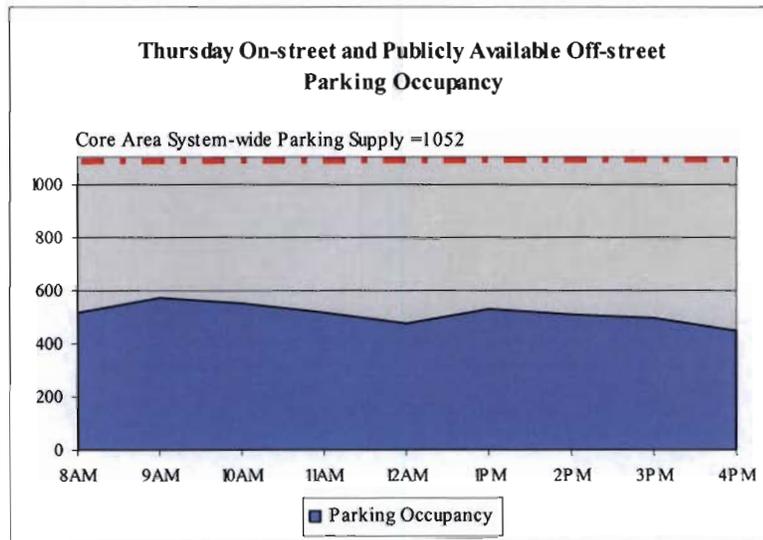
**Table 5a: Thursday On-street & Off-street Publicly Available Parking Occupancy**

Block Group	Inventory	8AM	9AM	10AM	11AM	12PM	1PM	2PM	3PM	4PM
1	154	83	90	99	94	91	92	94	97	82
2	20	0	0	0	0	3	0	0	1	2
3	41	6	7	8	22	20	17	19	20	18
4	2	1	2	2	1	1	2	1	1	1
5	21	14	14	17	16	17	21	20	20	19
6	55	28	33	32	34	32	28	26	25	24
7	495	307	332	277	248	227	268	243	226	210
8	6	2	3	4	4	6	4	4	5	6
9	9	2	4	6	5	8	5	6	7	6
10	0	0	0	0	0	0	0	0	0	0
11	78	10	11	13	20	8	9	9	8	9
12	110	47	57	71	52	46	55	59	59	49
13	28	16	18	21	12	10	19	19	19	13
14	33	1	1	3	5	7	9	8	7	5
<b>Total</b>	<b>1,052</b>	<b>517</b>	<b>572</b>	<b>553</b>	<b>513</b>	<b>476</b>	<b>529</b>	<b>508</b>	<b>495</b>	<b>444</b>

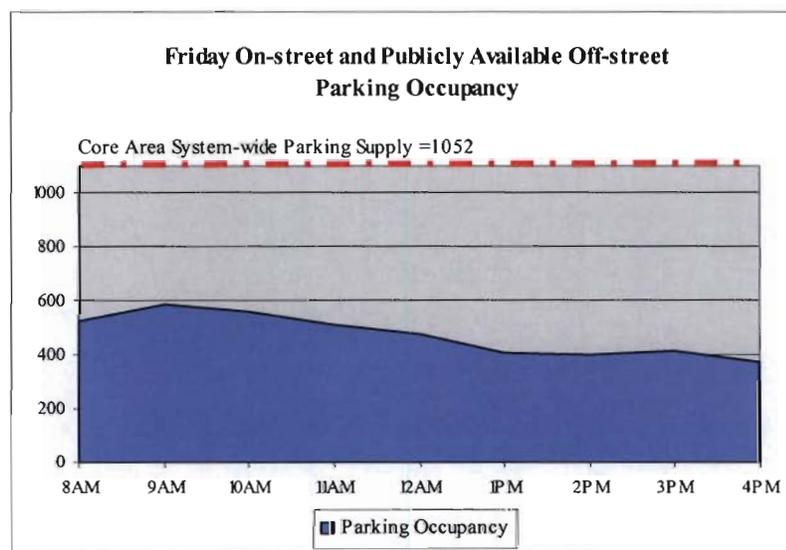
**Table 5b: Friday On-street & Off-street Publicly Available Parking Occupancy**

Block Group	Inventory	8AM	9AM	10AM	11AM	12PM	1PM	2PM	3PM	4PM
1	154	75	84	95	97	102	89	83	81	81
2	20	0	1	0	0	1	0	0	0	0
3	41	13	16	20	21	26	23	23	25	24
4	2	1	1	1	1	1	1	1	1	1
5	21	11	14	15	20	22	19	15	13	17
6	55	32	39	24	34	34	18	17	18	12
7	495	299	321	304	232	205	185	190	197	169
8	6	3	4	0	2	5	4	3	2	6
9	9	4	5	4	8	4	5	4	3	6
10	0	0	0	0	0	0	0	0	0	0
11	78	7	7	5	8	7	5	4	4	5
12	110	61	68	65	64	48	39	45	52	32
13	28	15	17	16	12	11	6	8	10	12
14	33	3	8	12	11	14	12	11	11	10
<b>Total</b>	<b>1,052</b>	<b>524</b>	<b>585</b>	<b>561</b>	<b>510</b>	<b>480</b>	<b>406</b>	<b>404</b>	<b>417</b>	<b>375</b>

*Exhibit F1: Thursday On-street and Publicly Available Off-street Parking Occupancy*



*Exhibit F2: Friday On-street and Publicly Available Off-street Parking Occupancy*



In addition to public parking, utilization data for private off-street lots was also recorded. Table 6 summarizes the peak period occupancy numbers for private/restricted off-street lots on Thursday and Friday. The data illustrates a much different situation than publicly available facilities in terms of occupancy percentages. It is clear that private/restricted parking lots are not as utilized as publicly available off-street lots. Of the 1,681 private/restricted spaces, 24% were occupied during the peak period on both Thursday and Friday.

**Table 6: Thursday & Friday Peak Period Occupancy of Private/Restricted Lots**

Block Group	Address	Inventory	Thursday		Friday	
			# of Spaces Occupied	% Occupied	# of Spaces Occupied	% Occupied
2	Main & 1st	118	38	32%	35	30%
2	Main between 1st & 2nd	42	14	33%	9	21%
2	Main between 1st & 2nd	24	12	50%	5	21%
2	Main & 2nd	32	5	16%	5	16%
9	1st between Franklin & Commerce	20	14	70%	13	65%
9	F& M Bank	44	22	50%	20	45%
10	1st between Union & Commerce	63	17	27%	14	22%
12	Legion & 3rd	71	8	11%	42	59%
13	Commerce between 3rd and Hiter	21	17	81%	7	33%
13	Hiter between Franklin & Commerce	40	20	50%	29	73%
14	Church Lot on Hiter & Commerce	192	103	54%	54	28%
14	Hiter between Franklin & Commerce	17	10	59%	10	59%
15	Funeral Home Lot	205	0	0%	1	0%
15	Franklin between 5th & 4th	26	2	8%	16	62%
16	Munford between 1st & 2nd	38	17	45%	8	21%
16	2nd between Munford & Union	54	17	32%	21	39%
16	Munford between 1st & 2nd	20	8	40%	23	115%
17	Commerce between 3rd & Hiter	54	15	28%	13	24%
18	Commerce between Hiter & 5th	54	20	37%	3	6%
18	Hiter between Madison & Commerce	36	21	58%	17	47%
19	Commerce between 5th & 6th (North)	94	0	0%	24	26%
19	5th between Franklin & Commerce	54	6	11%	6	11%
20	Commerce & 5th	27	10	37%	5	19%
20	Commerce between 5th & 6th	67	3	5%	3	4%
20	Commerce between 5th & 6th (South)	268	10	4%	20	7%
<b>Total</b>		<b>1,681</b>	<b>409</b>	<b>24%</b>	<b>403</b>	<b>24%</b>

**2.1 Practical Capacity and Peak Surplus/Deficit**

In order to accurately assess the stress on the parking system the concept of practical capacity needs to be discussed. The level of utilization within a facility, block or study area may reach a level where potential parkers become frustrated when trying to locate an available space and therefore perceive the facility full. This is particularly problematic for drivers who wish to remain parked only for a short period of time (shoppers, dinners, etc). For the purpose of this study a practical capacity factor of 90% was used to analyze the parking conditions in downtown Clarksville. Therefore, if a 100 space parking lot has 95 parked vehicles during the peak hour, then a practical deficit of 5 spaces would be perceived. Tables 7a and 7b illustrate the peak period practical surplus or deficit for each block for Thursday and Friday respectively. Overall, these tables indicate that the publicly available on and off-street facilities in downtown Clarksville have a practical surplus of 376 spaces on Thursday and 363 spaces on Friday. Exhibits G1 and G2 further illustrate the current conditions by color coding based on the percentage of surplus/deficit within each block. The color blue indicates that the block is experiencing a surplus of parking. The Lighter shade presents blocks with 0 to 30% parking surplus during the peak period and the darker shade presents blocks within which more than 70% of spaces are available during the peak period.

**Table 7b: Friday On-street and Publicly Available Off-street Practical Surplus/Deficit by Block**

Block Group	Inventory	Practical Capacity	Current Peak Utilization @ 9:00 AM	Practical Surplus/Deficit
1	154	139	84	55
2	20	18	1	17
3	41	37	16	21
4	2	2	1	1
5	21	19	14	5
6	55	50	39	11
7	495	446	321	125
8	6	5	4	1
9	9	8	5	3
10	0	0	0	0
11	78	70	7	63
12	110	99	68	31
13	28	25	17	8
14	33	30	8	22
<b>Total</b>	<b>1052</b>	<b>948</b>	<b>585</b>	<b>363</b>

**Table 7a: Thursday On-street and Publicly Available Off-street Practical Surplus/Deficit by Block**

Block Group	Inventory	Practical Capacity	Current Peak Utilization @ 9:00 AM	Practical Surplus/Deficit
1	154	139	90	49
2	20	18	0	18
3	41	37	7	30
4	2	2	2	0
5	21	19	14	5
6	55	50	33	17
7	495	446	332	114
8	6	5	3	2
9	9	8	4	4
10	0	0	0	0
11	78	70	11	59
12	110	99	57	42
13	28	25	18	7
14	33	30	1	29
<b>Total</b>	<b>1,052</b>	<b>948</b>	<b>572</b>	<b>376</b>

*Exhibit G1: Thursday On-street and Publicly Available Off-street Practical Surplus/Deficit by Block*



*Exhibit G2: Friday On-street and Publicly Available Off-street Practical Surplus/Deficit by Block*



## 2.2 Turnover Rate

In addition to parking utilization surveys DESMAN also completed a license plate survey to monitor the length of time each vehicle occupied a single on-street parking space and determine how many vehicles utilized a specific space through out the day. Given the 2-hour restrictions for on-street parking, this information would be effective in defining the extent of illegal/overtime parking. Tables 8a and 8b summarize this data by block group by duration of stay for Thursday and Friday respectively. On Thursday 425 vehicles utilized the 247 on-street spaces which equates to a turnover ratio of 1.7 and duration stay of 1.2 hours. Similarly on Friday 447 vehicles used the available 247 on-street spaces with average duration stay of 1.2 hours and a turnover ratio of 1.8.

*Table 8a: Thursday On-street Parking Turnover by Block*

Block Group	Inventory	1Hr	2 Hrs	3 Hrs	4 Hrs	5 Hrs	6 Hrs	7 Hrs	Total Vehicle Utilization	Average Length of Stay (Hours)	Vehicle/Space/Day
1	50	38	1	1	0	1	0	3	44	1.6	0.9
2	20	0	0	0	0	0	0	0	0	0.0	0
3	41	29	4	3	0	3	1	0	40	1.7	1
4	2	2	1	1	0	0	0	0	4	1.8	2
5	21	64	3	0	0	0	0	0	67	1.0	3.2
6	8	19	1	0	0	0	0	0	20	1.1	2.5
7	23	50	4	0	0	0	0	0	54	1.1	2.3
8	6	18	3	0	0	0	0	0	21	1.1	3.5
9	9	24	2	2	0	0	1	0	29	1.4	3.2
10	0	0	0	0	0	0	0	0	0	0.0	0
11	9	3	0	0	0	0	0	0	3	1.0	0.3
12	20	58	1	1	0	0	0	1	61	1.1	3.1
13	28	73	4	0	0	0	1	1	79	1.2	2.8
14	10	3	0	0	0	0	0	0	3	1.0	0.3
<b>Total</b>	<b>247</b>	<b>381</b>	<b>24</b>	<b>8</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>425</b>	<b>1.2</b>	<b>1.7</b>

*Table 8b: Friday On-street Parking Turnover by Block*

Block Group	Inventory	1Hr	2 Hrs	3 Hrs	4 Hrs	5 Hrs	6 Hrs	7 Hrs	Total Vehicle Utilization	Average Length of Stay Of Stay (Hours)	Vehicle/Space/Day
1	50	53	4	2	0	0	0	5	64	1.6	1.3
2	20	0	0	0	0	0	0	0	0	0.0	0
3	41	54	3	1	5	2	1	3	69	1.7	1.7
4	2	0	1	0	1	0	0	0	2	3.0	1
5	21	75	6	0	0	0	0	0	81	1.1	3.9
6	8	14	0	0	0	0	0	0	14	1.0	1.8
7	23	61	4	1	1	0	0	0	67	1.1	2.9
8	6	20	1	0	0	0	0	0	21	1.0	3.5
9	9	14	3	0	1	0	0	1	19	1.6	2.1
10	0	8	3	0	1	0	0	1	13	1.9	0
11	9	4	0	0	0	0	0	0	4	1.0	0.4
12	20	31	2	0	0	1	0	0	34	1.2	1.7
13	28	58	4	2	0	0	1	2	67	1.4	2.4
14	10	4	0	0	0	0	0	0	4	1.0	0.4
<b>Total</b>	<b>247</b>	<b>396</b>	<b>31</b>	<b>6</b>	<b>9</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>447</b>	<b>1.2</b>	<b>1.8</b>

Exhibits H1 and H2 illustrate the percentage breakdown of length of stay for on-street parking on Thursday and Friday. Less than 5% of vehicles park for two hour or longer on both days. Therefore it is concluded that the on-street parking enforcement program is effective and the majority of long term parkers park in off-street facilities.

*Exhibit H1: Percentage Breakdown of Thursday On-street Parking Turnover*



*Exhibit H2: Percentage Breakdown of Friday On-street Parking Turnover*



### **2.3 Assessment of Existing Conditions**

The supply of publicly available parking in downtown Clarksville falls primarily into two categories; 2 hour parking and reserve/restricted parking. Of the 1,052 publicly available on and off-street spaces within the study area 550 (53%) are reserved/restricted for monthly permit holders, fleet vehicles, and government workers and 306 (29%) are for short-term parking. Only 196 spaces (18%) are available to visitors who wish to park for longer than 2 hours, aka mid-term parkers. The effectiveness of the on-street parking enforcement program, as evidenced by the low vehicle duration of stay, concentrates this mid-term parking activity into the Cumberland lot and the Front C lot adjacent to the County Courthouse. Though the system-wide analysis of parking utilization identified a practical surplus, the utilization of the 4-hour and 10-hour metered spaces in these two facilities approached 100% occupancy. Given the relatively small number of mid-term spaces and high utilization it was not surprising to hear from parking enforcement staff that the greatest concentration of parking violations occur in these areas. In short, though downtown Clarksville does not currently have a shortage of publicly available parking spaces, the system over subscribes to short-term parking (less than 2 hours) and long-term parking (monthly permit holders and reserved/fleet vehicles) and under subscribes to mid-term parkers.

## **SECTION 3 – ASSESSMENT OF FUTURE PARKING CONDITIONS**

### **1.0 Potential Development & Absorption of Presently Vacant Commercial Space**

Apart from some discussion of the Roxy Theater, conversations with the Parking Authority, City, downtown stakeholders, and the regional planning commission did not yield specific information on pending development and redevelopment projects. As such, the study is unable to identify the parking impact associated with specific developments or in individual city blocks. However, there is subjective evidence that the study area could support an estimated 175,000 square feet of infill development and re-occupancy of vacant commercial buildings. Therefore, for purposes of projecting future parking supply and demand conditions, the following analysis presents an assessment of parking impact associated with a “development impact zone”. Exhibit I identifies

a core area or radius within which the potential infill and absorption would/could occur. Note that this theoretical analysis includes the assumption that some existing surface parking would be lost to new development activity.

*Exhibit I: Development Zone for Future Development Infill and Absorption Analysis*

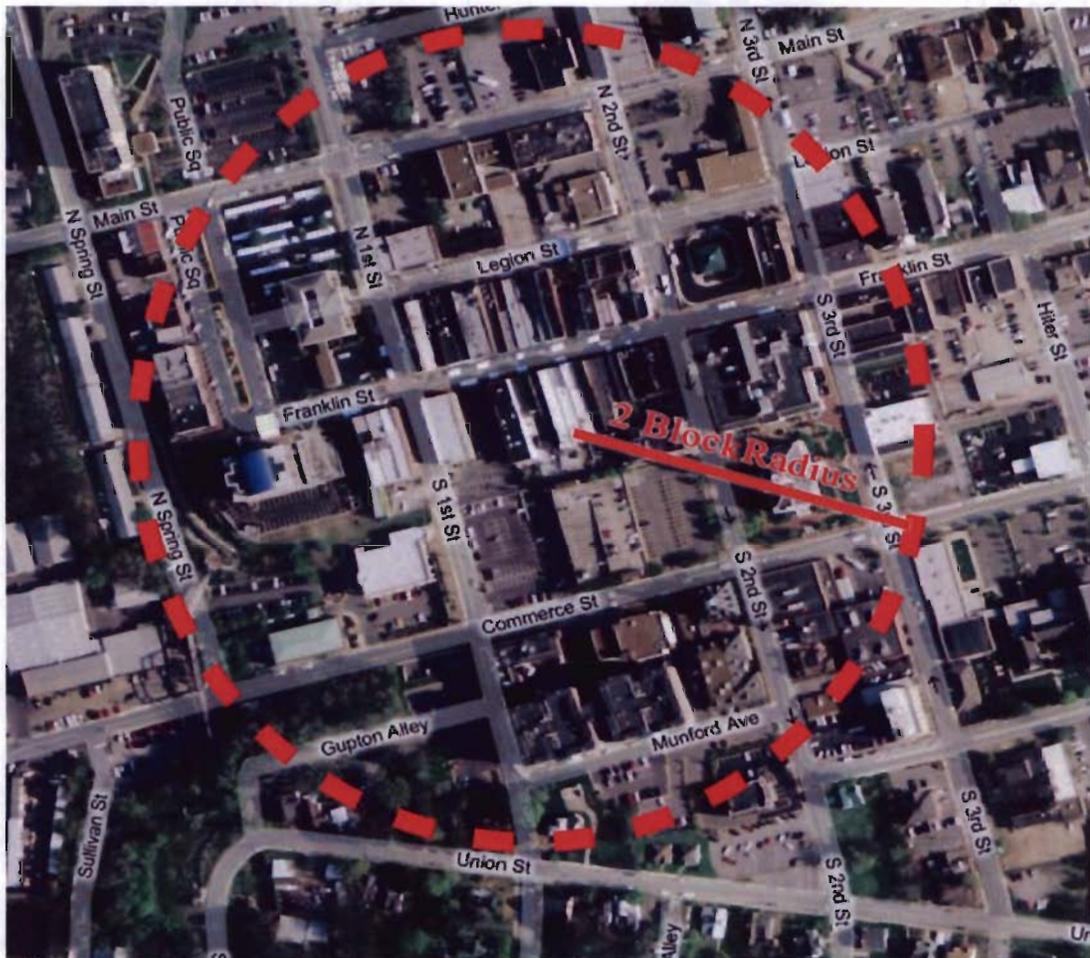


Table 9 estimates the peak weekday parking demand that would be generated by infill development and absorptions within the development zone. It assumes that the 175,000 square foot of development activity would include office (50%), retail (20%), residential (20%), and restaurant/entertainment (10%) uses. The parking demand ratios for each of the various land use components are based on research conducted by the Urban Land Institute (ULI) as published in

Shared Parking, 3<sup>rd</sup> edition. However, given the presumed synergy between land use activities in the downtown some modest reductions to those factors have been made. For example, many of the patrons to a restaurant or a retail shop during the daytime peak are actually employees to adjacent office buildings. As such, the parking demand factor for independent restaurant/retail parking is reduced as some of their patrons already parked as office employees. The analysis suggests that the peak weekday parking demand within the development zone would increase by 570 spaces and would include a need for both short-term (shoppers/diners) and long-term (employee) spaces.

*Table 9: Friday On-street Parking Turnover by Block*

Land Use	Density	Peak Weekday Demand Ratio (2)	Peak Demand
Office	87,500	3.5 per 1,000 sf	310
Retail	35,000	2 per 1,000 sf	70
Residential (1)	40	1.25 per DU	50
Restaurant	17,500	8 per 1,000 sf	140
<b>Total</b>	<b>175,000</b>	---	<b>570</b>

(1) Residential demand factors are based on dwelling unit. Therefore, the 35,000 sq.ft. was covered to units based on 800 sq.ft. per unit.

(2) ULI Shared Parking base ratios for retail and restaurant were reduced by 20% to reflect synergy between different land uses.

Presuming that some infill development will displace existing surface parking lots the futures analysis assumes that 14 private/restricted spaces in Block 3 off Legion Street and 43 publicly available spaces in Block 7 adjacent to the Roxy Theater would be displaced.

To determine if the current public parking system within the development zone could absorb the increase in parking demand Table 10 revisits the peak weekday (Friday) practical surplus and deficit analysis (see Table 7b) and excludes those blocks/parking facilities that are outside of this radius. Public on- and off-street parking facilities within this zone can absorb a demand for an additional 239 spaces. Compared to the 570 space future development demand and the presumed loss of 57 existing spaces suggest that a practical deficit of 388 spaces would materialize (239

minus 570 minus 57). Given the size of this deficit it would be unrealistic to think that public surpluses outside of this development zone could satisfy this need. As such, and presuming 175,000 square feet of development activity, some consideration for structured parking is required.

*Table 10: Current Publicly Available Practical Surplus/Deficit by Block within Development Zone*

Block Group	Inventory	Practical Capacity	Current Peak Utilization @ 9:00 AM	Practical Surplus/Deficit
1	154	139	84	55
2	20	18	1	17
3	41	37	16	21
4	2	2	1	1
5	21	19	14	5
6	55	50	39	11
7	495	446	321	125
8	6	5	4	1
9	9	8	5	3
10	0	0	0	0
<b>Total</b>	<b>803</b>	<b>724</b>	<b>485</b>	<b>239</b>

## **SECTION 4 – STRUCTURED PARKING OPPORTUNITIES**

### **1.0 Structured Parking Opportunities**

Though this consultant does not anticipate the need to build additional public parking in the near term, particularly an expensive parking structure, the opportunity to expand the capacity of parking downtown needed to be evaluated nonetheless. This section of the report exhibits the parking potential associated with structured parking development sites, i.e., parking layout, design efficiency, space capacity, construction/development cost, and cost per net spaces gained. As structured parking is not warranted at this time, the analysis does not prioritize or rank the sites/concepts.

A number of sites were reviewed with Parking Authority officials that could support structured parking facilities. Exhibit J illustrates the 4 different locations that were evaluated within the Government District corridor.

- Site A – City Hall Lot
- Site B – 1<sup>st</sup> Street and Legion Street Block
- Site C – Miller Lot (Cumberland Plaza Deck II)
- Site D – Hiter Street/Baptist Church Lot

*Exhibit J: Potential Structure Parking Locations*



Other potential sites within the study area were initially considered but were eliminated due to their limited dimension. Parking structures have rather demanding functional requirements and require significant developable footprints. Parking stalls are 18 ft. long and 9 ft. wide, typical two-way drive isles (90-degree parking) are 24 ft. wide, and, therefore, the standard parking bay must equal 60 ft. (18+18+24). In order to circulate up and down, two drive isles are required. Therefore, the typical garage should be 124 ft. wide (including 4' for parapet walls and columns). Similarly, the length of the structure must be sufficient to permit the parking ramp to climb the required distance to the next parking level while not exceeding a 5-6% slope. For example, a garage which requires a 10 ft. floor to floor ramping system (single helix) with a 5% slope would require 200 ft. of sloping floor plus another 27 to 45 ft. on each end for vehicular circulation on each end (depending on traffic pattern) for a total of 248 to 290 ft. Thus, the desirable footprint is 124 ft. by 248-290 ft. These design standards can be reduced depending on the type of traffic flow (one-way), the angle of parking (less than 90 degrees), and the type of ramping system (single or double helix) employed. Unfortunately, such modifications reduce the design efficiency and increase the per space construction costs. Design efficiency is best defined by the

number of square feet required to provide a single parking stall. For example, an efficiently designed parking structure should require fewer than 320 sq.ft. per space.

Note that the issue of ownership was not used to disallow sites from consideration as private property within the 1<sup>st</sup> Street and Legion Street block (Site B) and the Hiter Street/Baptist Church Lot (Site D) were included in the analysis. Naturally, development of public structured parking on privately owned sites would require land acquisition, land condemnation, eminent domain, or some form of public/private development initiative. The analysis presented here initially focuses on maximizing the number of public parking spaces on each site. As such, costs do not include the expense to the Clarksville Parking Authority to acquire the land and/or the financial commitment associated with public/private development partnerships. This section simply presents the parking capacity potential, their cost, and their relative merits to the parking system.

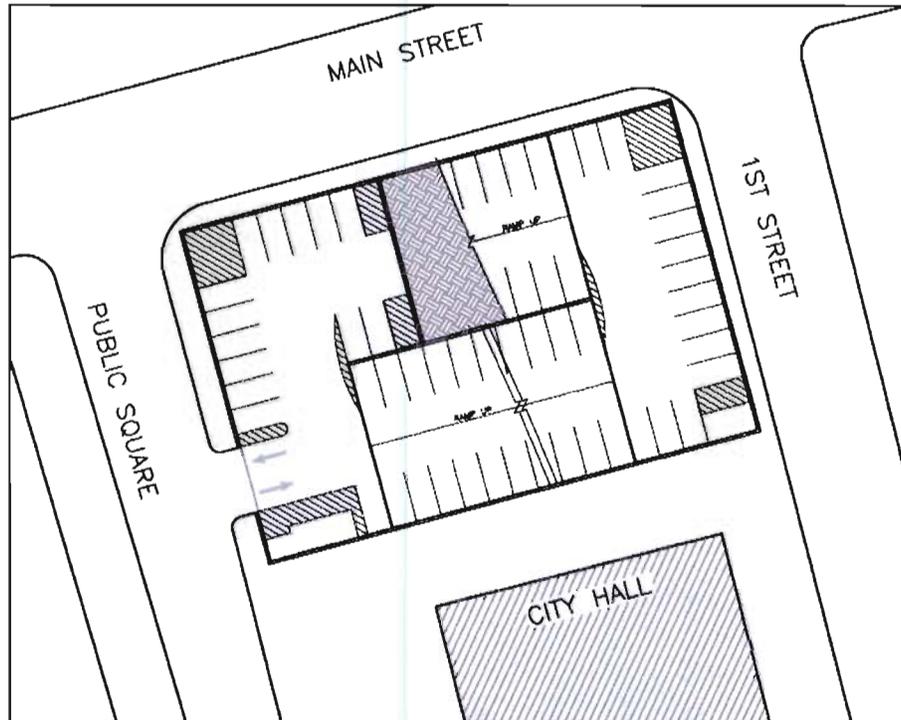
For each of the selected sites/properties the site boundaries and dimensions, and roadway directional flow were identified. Once the boundaries were defined, parking layouts for each site were created; identifying vehicle entry/exit points, drive aisles, directional traffic flow, and internal ramping. All construction cost figures presented here represent FY 2009 dollars and are meant for comparative purposes.

### **1.1 City Hall Site (Site A)**

Based on the concept presented here (see Exhibit K1) as many as 320 parking spaces on grade plus four supported levels can be provided on this site. As the length of the site does not permit the desired 248 plus dimension for a single ramping system, both a north and the south ramp are required. While that only modestly effects design efficiency (just over 330 sq.ft. per stall) it would affect exterior aesthetics as there would be no flat floors. Note that some 71 existing City Hall employee parking spaces would be displaced due to construction. Using FY 2009 dollars, \$40 per square foot construction cost, the 105,700 square feet structure is estimated to cost \$4.23 million. This cost does not include design fees, permitting, cost contingencies, or other soft costs. Such soft costs could increase the design and development costs by roughly 20% to \$5.07

millions, or \$15,800 per space. Taking into consideration the displacement of existing public parking, the net new construction costs would equal \$20,380 per space gained.

*Exhibit K1: City Hall Site Structure Parking (Site A)*



### **1.2 1<sup>st</sup> Street and Legion Street Block (Site B)**

This concept, illustrated on Exhibit K2, has the potential to support a parking structure with a dimension of 124 ft. by 200 ft. Vehicular access would be along a midpoint in the block along Main Street, thereby supporting efficient ingress and egress. The site permits the design of a relatively efficient parking structure (approx. 324 sq.ft. per stall). Like Site A, the continuously ramping structural system will complicate exterior façade design and the facilities ability to assimilate with the existing architectural character of the area.

Assuming grade plus four supported levels, this site could accommodate a parking structure with as many as 360 spaces. Note that approximately 20 existing privately owned surface spaces would be lost to construction; meaning a net gain of 340. As noted earlier, these parking layouts

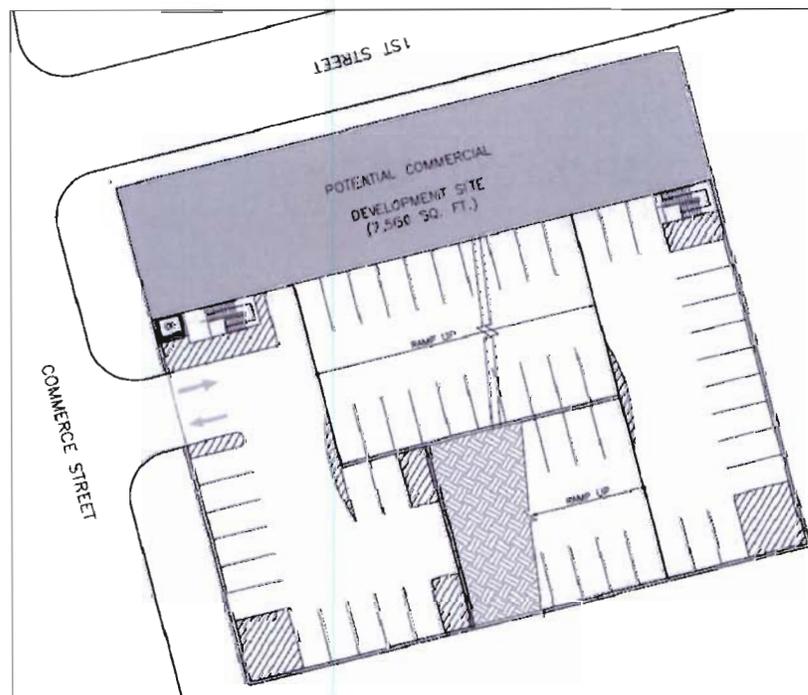
maximize the space count and do not consider the effect on capacity and efficiency created by ground floor retail space which would be desirable along Legion Street. Based on the \$40 per square foot construction cost, the 116,700 sq.ft. parking structure would cost \$4.67 million. With soft costs the total project cost would be an estimated \$6.8 million (\$19,030 per space or \$20,150 per space gained). As this property is privately owned and as there exists a building on the site land acquisition costs (\$1,000,000) and demolition costs (\$ 250,000) could increase the development figure dramatically.



*Exhibit K2: 1<sup>st</sup> Street and Legion Street Block Parking Structure (Site B)*

### 1.3 Miller Lot/Cumberland Plaza Deck II (Site C)

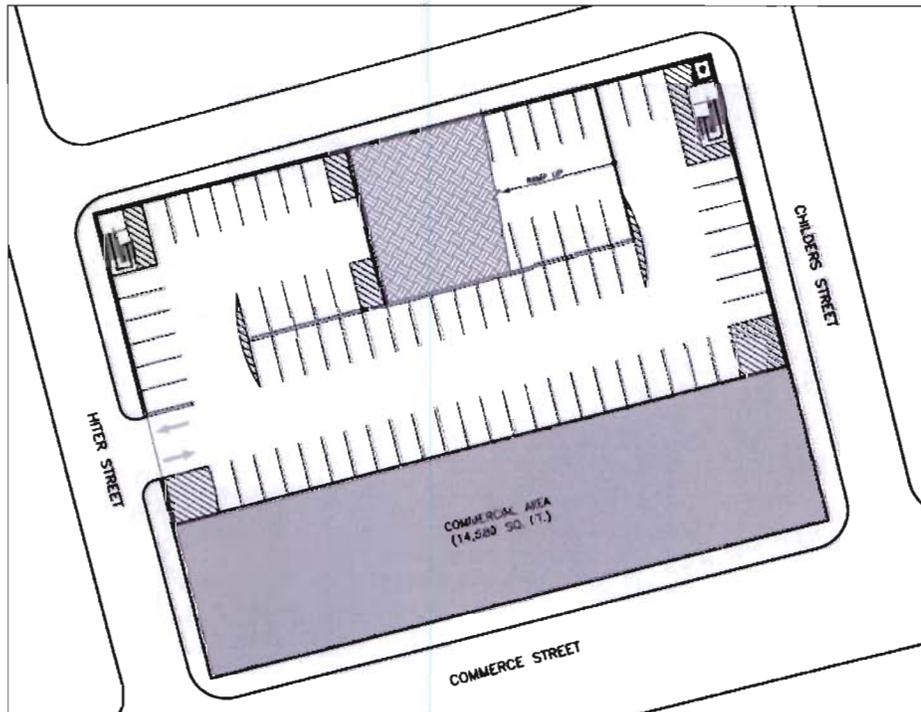
The Miller Lot/Cumberland Plaza Deck II (Site C) concept, illustrated on Exhibit K3, is unique as it offers the City and Parking Authority the ability to horizontally expand on the existing Cumberland Plaza structure, integrate access and revenue control improvements that are recommended for the existing parking structure without significant cost, and preserve a 60 foot depth along 1<sup>st</sup> Street for future commercial development. As many as 388 spaces can be developed on grade plus five supported levels. Less the 99 spaces in the Miller Lot area yields a net gain of 289 spaces. Total construction cost is estimated at \$5.1 million. Total development costs including design fees and other soft costs are estimated at \$6.12 million or \$15,770 per space (or \$21,180 per space gained). It is uncertain if the existing Cumberland Plaza structure was designed to accommodate horizontal expansion. Therefore, there may be some cost increases associated with structural remediation and refit.



*Exhibit K3: Miller Lot/Cumberland Plaza Deck II (Site C)*

**1.4 Hiter Street/Baptist Church Lot (Site D)**

The concept, illustrated on Exhibit K4, presents a two-bay, single-ramp parking structure with a capacity for 640 spaces on grade plus 4 parking levels. Structured parking design would be quite efficient (310 sq.ft. per stall) given the length of the site. Additionally, the parking capacity would be increased by nearly 50% if a third parking bay were incorporated. As illustrated here, the concept presumes to preserve a 60 foot depth along Commerce Street. This may be critical as the site is not owned by the City or Parking Authority but the potential for significant commercial or mix commercial/residential development could encourage joint development between the Church, the Parking Authority, and a developer. At \$40 per square foot for construction, the parking facility would cost \$8.01 million. Soft costs would escalate those numbers to \$9.61 million or \$15,020 per space. Adjusting for the displacement of existing 192 spaces the per space gained cost equals nearly \$21,450.



*Exhibit K4: Hiter Street/Baptist Church Lot (Site D)*

The following matrix illustrated on Table 11 summarizes all concept counts and cost estimates and in the case of Site B includes potential land acquisition and building demolition costs. It may be of interest to note the comparative impact that the lost of existing parking and the cost of land acquisition and demolition have in these examples. Site B, which includes an estimated \$1.25 million in acquisition/demolition costs, is nearly equal in per space costs to Site A which has no such costs but does displace 51 more existing spaces.

*Table 11: Structured Parking Design/Development Matrix*

Criteria	Site			
	A	B	C	D
Total Sq. Ft.	105,700	116,700	127,500	200,200
Per Sq.Ft. # of Spaces	320	360	388	640
Per Space Efficiency	330	324	330	310
Displacement of existing parking spaces	71	20	99	192
Sq. Ft. Construction Cost	\$40	\$40	\$40	\$40
Construction Cost	\$4,228,000	\$4,668,000	\$5,100,000	\$8,008,000
Development Cost	\$845,600	\$933,600	\$1,020,000	\$1,601,600
Demolition Cost	\$0	\$250,000	\$0	\$0
Land Acquisition Cost	\$0	\$1,000,000	\$0	\$0
<b>Total Development Cost</b>	<b>\$5,073,600</b>	<b>\$6,851,600</b>	<b>\$6,120,000</b>	<b>\$9,609,600</b>
<b>Per Space Development Cost</b>	<b>\$15,860</b>	<b>\$19,030</b>	<b>\$15,770</b>	<b>\$15,020</b>
<b>Per Space Gain Development Cost</b>	<b>\$20,380</b>	<b>\$20,150</b>	<b>\$21,180</b>	<b>\$21,450</b>

### 1.5 Economics of Structured Parking

The cost of structured parking is not limited to the development costs presented in Table 11. Annual debt service costs can range between 8-10% of development cost depending on financing rates and terms. Operating costs as noted previously could equal \$450 per space per year depending on the type of access and revenue control (automated vs. cashiered) that is employed. Therefore, the annual cost to develop and maintain a single structured parking space could equal \$2,450 (\$20,000 per space land acquisition/construction cost times 10% plus \$450 operating/maintenance cost). For the parking structure to achieve a revenue/debt neutral status each parking space would need to generate approximately \$205 per space per month. Market conditions in most regions of the country do not support this rate of return. As such, parking, like roads, sewers, and other public utilities, is viewed as infrastructure that increases the value of those activities that it is designed to serve. An office building that has adjacent/integrated

structured parking is able to exact a higher per square foot rent than a similar office building that does not have the same access and convenience. As a result, the building with convenient access to parking has greater value and is able to generate greater property tax revenues for the municipality.

## **SECTION 5 – OPERATIONAL ASSESSMENT & RECOMMENDATIONS**

### **1.0 Background**

This analysis of existing and future parking conditions suggests that additional structured parking is not warranted at this time. Existing public parking facilities are strategically located within the downtown and have, at present, sufficient capacity to meet current and near-term need. However, it is always valuable for a parking owner/operator, in this case the Clarksville Parking Authority, to re-examine how public parking is planned for, developed, managed and maintained. As such a review of the operational effectiveness of the Clarksville Parking Authority is also a part of this study.

The purpose of this review is to determine if a parking authority form of management is appropriate for Clarksville. The first part of the analysis is to assess if the parking authority, as currently configured, is effective in meeting current and future parking related challenges and if not, identify what changes would be required to improve the effectiveness of the existing parking authority. In addition, if a parking authority is not an effective management approach the identification of more appropriate alternative organizational approaches will be recommended. The following section of this report presents an overview of current operating conditions and procedures, outlines the advantages and disadvantages of alternative forms of management, recommends the most effective management strategy and under that strategy identifies the changes required to achieve a superior level of parking service.

**1.1 Current Parking Operations**

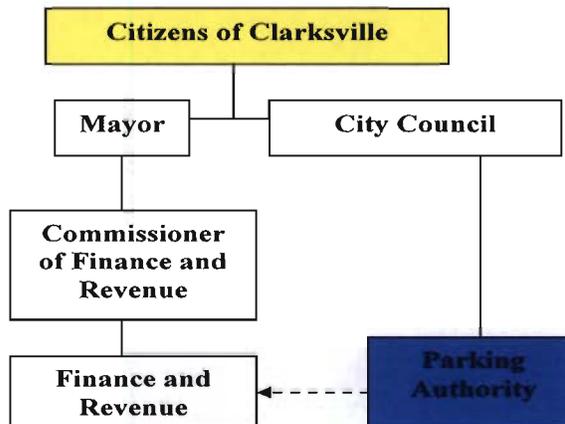
By charter, the City of Clarksville Parking Authority is authorized to adopt and publish parking regulations, including the erection of proper signs to the following:

- (a) The location and time when parking shall be limited.
- (b) Places where parking shall be prohibited entirely or during certain periods of time.
- (c) The location, time and charge, if any, for loading zones.
- (d) To make studies and recommend to the city council improvements in or need for, off-street parking facilities.

The Parking Authority is composed of a board of five (5) members. One member of the Authority is a member of the City Council of Clarksville appointed by the mayor for a term of one year. The remaining four members of the Authority are appointed by the mayor and approved by a majority of the City aldermen, and serve for terms of four years.

The Authority has is responsible for the management of all municipally-owned off-street parking facilities and all curbside parking spaces. Responsibilities also include, in partnership with the Police Department, the enforcement of handicapped parking regulations at the regional mall and other retail centers, placement of “No Parking Zone” signs in residential areas.

Currently, the Parking Authority contracts with the City’s Finance and Revenue Department to oversee and manage daily parking operations. Exhibit L illustrates a simplified description of how these interact within the city:



*Exhibit L: Hierarchy of Parking Authority and City’s Finance and Revenue Department*

Presently, the Parking Authority has no dedicated staff. Though it's day-to-day decision making process is independent, it is dependent on various City agencies, namely Finance and Revenue, through contract management to perform all critical parking related functions, including enforcement, revenue collection, debt service payments, cleaning and maintenance.

For example, if a parking meter needs maintenance or repair or if the Parking Authority approves a new loading zone, the Finance and Revenue Department is instructed to call the Street Department. Additionally, the Parking Authority has an inter-local agreement with the County's Sheriff's Department to provide cleaning of the Cumberland Garage once per week.

### **1.2 Parking Enterprise Fund Revenue & Expenses**

The Clarksville Parking Authority operates as an Enterprise Fund. Enterprise Funds are used to account for the acquisition, operation and maintenance of governmental facilities and services that are entirely or predominantly financially self-supportive through user fees. The Finance and Revenue Department manages the Parking Authority's debt service payments, operating costs, and operating revenues. The operations of Enterprise Funds are accounted for in such a manner as to show a profit or loss similar to comparable private enterprises.

For FY2008 debt service payments on construction and operations and maintenance costs totaled \$145,500. The management fee of \$203,300, which encompasses a wide range of services, is more than one-half of the annual expense. Presuming that this cost applies only to on-street spaces and those off-street facilities that are owned/operated by the City and Parking Authority (1,052 spaces) then the annual per space operations and maintenance costs is \$193. Including debt service payments and amortization/depreciation expenses; the annual operations and maintenance cost increases to \$331 per space.

Operating revenues for this same year totaled \$385,600 and includes revenue generated by monthly parking permits, meter revenue, parking violations, special events and downtown resident parking permits. As illustrated in Table 12 an operating surplus of shortfall of \$36,800.

*Table 12: FY2008 Parking System Operating Revenues and Expenses*

	Actual FY2008
<b>Debt Service Payments</b>	
Interest Paid	\$118,200
Interest Expense	\$27,300
<b>Total Debt Service Payments</b>	<b>\$145,500</b>
<b>Operations &amp; Maintenance Costs</b>	
Management Fee	\$203,300
Long-term Sinking Fund Reserve	\$0
Staff Salary & Benefits	\$0
Equipment Fund Reserve	\$0
Equipment Capital Amortization	\$0
Equipment Maintenance Contract	\$0
<b>Total O&amp;M Costs</b>	<b>\$203,300</b>
<b>Total Debt Service and O&amp;M Costs</b>	<b>\$348,800</b>
<b>Operating Revenues</b>	
Off-Street Total	\$158,000
On-Street Total	\$114,300
Parking Fines	\$100,800
Residential Parking	\$1,200
Other Revenues	\$11,300
<b>Total Operating Revenues</b>	<b>\$385,600</b>
<b>Operating Profit (or Loss)</b>	<b>\$36,800</b>

### 1.3 Off-Street Operations

The City of Clarksville's off street parking program consists of reserved permit, non reserved permit and transient parking. Transient parking is accomplished through the use of single space meters. Of the 805 off street spaces, 550 are permit / reserved, and 255 are transient. Of the transient spaces, 96 are 2-hour spaces, 63 are 4-hour spaces and 96 are 10-hour spaces.

As with many permit programs, permit rates at the Clarksville parking facilities vary by location, with the higher rates being charged at the more centrally located facilities. Depending on the facility, monthly rates are \$25, \$30 or \$40. Table 13 shows the permit rates by location:

*Table 13: Permit Rates by Type and Location*

<b>Location</b>	<b>Monthly Rate*</b>
Residential Areas for Downtown Apartments	\$25
Transit Garage	\$40
Roxy Lot	\$25
Main Street Lot	\$30
Cumberland Plaza	\$30
Miller Lot	\$25
Lower Biggers Lot	\$25

\*Monthly rates do not include multiple permit discounts

Discounts are given for persons or businesses that purchase multiple permits. Those purchasing 6 or more permits receive a 10% discount and those purchasing 12 or more receive 20% discount. In the case of Clarksville, permits are hang tags that are displayed from the vehicles rear view mirror. Permits are paid for on a monthly, semi-annual or annual basis.

Hourly parking is made available by the use of parking meters at both on and off-street locations. The hourly rate at the meters is 50 cents per hour with two-hour, four-hour and ten-hour limits, depending on location. DESMAN has determined that within the study area, there are a total of 255 off-street metered parking spaces.

#### **1.4 On-Street Operations**

On-street parking within the study area consists of 247 parking stalls, 212 of which are metered. Of the 212, 210 have a 2-hour limit and two have a 10-hour limit.

When examined in total, there are basically two choices with regards to parking duration; employee/resident permit or 2-hour. Of the 1,052 publicly available on and off-street spaces in the study area only 167 (15.8%) are not 2-hour or permitted. As a result, though the overall

utilization of public spaces in the study area is low there is significant use and competition for the few “mid-duration” spaces that do exist.

### **1.5 Parking Enforcement**

In the downtown area, parking enforcement is currently done by three full time employees from 8:00 AM to 4:30 PM, Monday through Friday who are employed by the City’s Finance and Revenue Department. Handheld ticketing devices are used, however one is (was) out of service. As a result, the enforcement officers are issuing hand written citations. Outside of the downtown area, parking enforcement is done 24/7 by the City’s police officers and park rangers. In FY2008 14,321 citations were issued and \$103,087 was ultimately collected. This equates to \$7.20 per collected citation. Of the total number of citations issued, 61% are paid. Ideally (yet realistically) the collection rate on parking tickets should exceed 75-80% of total issuance. Additionally, an industry perspective on enforcement and revenue collection, including adjudication (court costs), suggest that the expense to issue/collect parking tickets is \$15-20 per. Therefore, it could be argued that the true cost of enforcement is greater than the revenue that is collected.

In Clarksville, the following are the most common types of violations:

1. Expired meter
2. Parking in a reserved stall
3. Parked in more than one stall (parked on or over a line)
4. Parked on a street facing the wrong direction

### **1.6 Handicapped Parking (an Overview)**

DESMAN could find no detailed policies or procedures that the City of Clarksville, Parking Authority or enforcement personnel prescribe to. However it is understood based on discussions with various stakeholders that individuals with an ADA placard may park in any parking space at no cost regardless of rate or duration. Recommendations regarding the enforcement of existing State of Tennessee’s legislations is referenced separately in the Appendix.

## 2.0 Operational Recommendations

Organization and management of parking systems varies from city to city. Specific responsibilities and arrangements reflect local circumstances and needs. Major variables include the amount and location of the municipality operated parking inventory, community size and resources, state enabling legislation, local statutes and the priorities, agenda and attitudes of the local community. Because daily operations, maintenance, personnel and costs associated with the management of on and off-street parking facilities are quite different, the parking management structures municipalities have created are typically a reflection of their individual preferences and unique needs.

Generally, organizational examples for managing municipal parking activities can be viewed as a “spectrum of alternatives.” On one end of the spectrum is the purely public sector or in-house structure for complete management of a municipality’s parking facilities. Typically, small cities having small parking systems or, larger cities that have opted to make a substantial commitment to properly staff and fund an in-house parking program in one or more departments, elect not to involve the private sector.

On the other end of the spectrum are cities that assigned the total responsibility for managing their parking facilities to one or more private entities. The rationale for such an arrangement often relates to the desire for professional and competent management, administrative savings, improved responsiveness, financing and/or contracting latitude, or other basic operational efficiencies that stem from having an autonomous private entity assume control of public parking facilities.

In the middle of the spectrum are various organizational structures that have public and private aspects. To lessen some of the public sector burden of selected roles, responsibilities can be assigned to the private sector. Municipalities may engage private sector entities with individual contracts to provide such services as facility operation, maintenance, meter collections, auditing or development of public parking facilities, while delegating the balance of the responsibilities to one or more city departments or agencies. In today’s environment, organizational structures for

managing public parking activities in most cities include some private sector involvement and thus as a result, fall into the middle of the spectrum.

Parking industry management specialists generally agree that the parking management structure most often dictates what the parking system will look like. Conversely, the parking system and its operation most often reveal the nature of the management structure. There are some telltale signs of a poorly crafted management structure.

These telltale signs are usually readily evident and generally characterized by the parking system's inability to:

- Meet basic performance objectives
- Portray a good public image
- Respond to the user groups it serves
- Understand and apply large parking management strategies

Conversely, well crafted parking management structures most often have the ability to perform the following:

- Establish an adequate budget to address the operating requirements of the parking system
- Set rates that are sufficient to fund activity to meet the adopted goals and objectives of the parking system
- Manipulate and control the elements and processes associated with the management and operation of the parking system
- Set aside sufficient revenue for property acquisition and future development
- Set aside sufficient revenue for system maintenance and other future capital expenditures
- Direct and deliver services from a single source responsibility center

The creation of a commendable mission statement is the single most important step in the reengineering process. A well crafted mission statement that is supported by worthy goals paints an accurate picture of the final product. The mission statement that we are suggesting for

adoption is based on information imparted to DESMAN by the parking stakeholders and City representative that were interviewed, observations of the existing parking system, experience in other cities throughout the nation, and general goals articulated in the City's Request for Proposal for parking consulting services.

It is recommended that the Parking System's *Mission Statement* read as follows:

*The City of Clarksville's on and off-street parking system shall support existing land uses, assist the City's economic development initiatives, and preserve parking for its residents, by providing adequate and high quality parking resources and related services for all who need to park within the downtown under a program that is market driven yet sustainable.*

The following lists the various approaches to parking management. Note that Clarksville's Parking Authority may already have some of these characteristics/powers.

#### ***Parking "Enterprise Fund" Approach***

As noted previously, the City of Clarksville created the Parking Authority operated as an Enterprise Fund to manage the Authority's parking assets. A parking enterprise fund is a direct unit of city government. It is an accounting construct of city government that follows a businesslike model and is intended to generate adequate income to be self-sustaining. The "enterprise" fund approach to parking management most often offers a municipality the best mix of operational advantages. These include:

- Municipality maintains direct control of parking operations and long-term parking planning goals.
- Financial structure (self-supporting) permits department to sometime work outside of financial restraints placed on other "general fund" city departments.
- Parking operations and development usually do not place a tax burden on the citizens of its municipality.

Overall, there are no operational disadvantages to this approach other than the parking “enterprise fund” does not maintain the operational freedom of a Parking Authority and parking issues can sometime become political at higher level of government. *Although titled a Parking Authority, the Clarksville Parking Authority operates like a city department “enterprise fund.”*

### ***Conventional “Parking Department” Approach***

Not unlike other city departments, a parking department can manage its special charge from a single consolidated base. Although parking departments can succeed in managing on and off-street parking facilities, there are certain inherent problems that prevent parking departments from delivering the high level of service that is desired. The primary problem is that parking departments cannot control all the variables associated with the delivery of parking services. Parking departments are most often created to be reliant on other departments that have cooperation with a parking department as a secondary or tertiary responsibility. A meter pole is broken - call the Public Works Department. Parking income is suspect - call the Finance Department. Have a problem with a parking contract –call the Law Department. Parking departments find it difficult to divest themselves of reliance on other departments, thus maintaining a fatal parking flaw –fragmentation of critical support services and the absence of a true business model.

Another problem is that parking departments must compete for funding in the municipal budget environment and cannot operate as a business. It is difficult to explain to city fathers why a parking structure’s restoration needs are more important than other competing interests. Although titled a Parking Authority, the Clarksville Parking Authority operates like a city parking department.

### ***Parking Divisions***

Lastly, parking divisions organized under other departments (public works, engineering, etc.) are most often used in situations where a city charter limits and defines the number and nature of individual departments. Parking divisions have similar, but diminished, powers and abilities that

are associated with parking departments. However, a parking division has two more liabilities. They must:

- Seek permission to perform actions from a subordinate position within the department in which they reside. And;
- They must not only compete for funds with other departments, but also within the department that they reside as the subordinate entity. Parking divisions are generally weak and find it difficult, if not impossible, to bring about significant change.

Given the fact that the Parking Authority has no dedicated staff and is dependent through a single contract with the City's Finance and Revenue Department the Parking Authority is impacted by these "parking division" limitations.

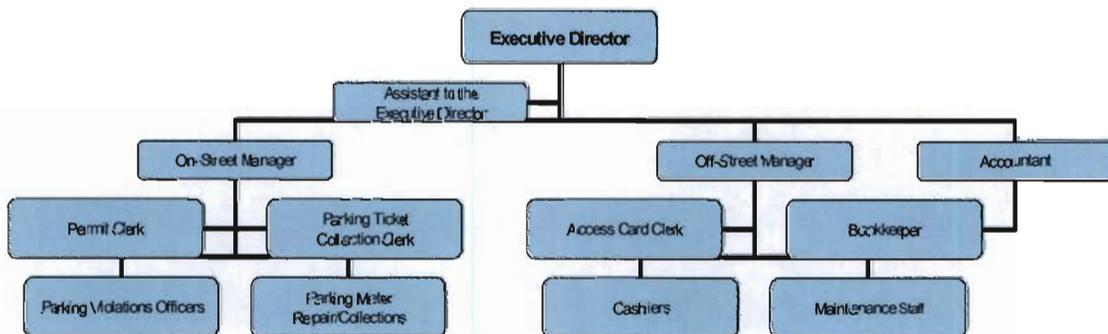
***"Parking Authority" Approach***

A Parking Authority is generally defined as a city affiliated arm of government charged with managing the parking found within its designated boundaries. Charged with the overall responsibility for parking operations and planning in its respective city, a Parking Authority is a semi-autonomous agency, which is fully dependent on the parking revenues it generates. Parking authorities receive no property tax support for use in their operation. The necessity to create a Parking Authority is most often driven by the need to increase service levels, essentially lessen the bureaucracy associated with the daily operation of a city-run department, and operate the public parking operation as a revenue neutral program. In most states, parking authorities have the following powers and characteristics:

- The ability to acquire real property either through negotiation or its vested powers of eminent domain.
- A Parking Authority has a five member board of directors (some states permit more). The board is appointed by the mayor with the consent of the city council.

- The board is empowered to hire a director and any and all other employees that it deems necessary to manage and operate parking facilities, processes, and functions under its jurisdiction.
- It is empowered to operate all public off-street parking within its city limit.
- It has the power to set rates for on and off-street parking, thus removing the rate setting process from the political arena.
- It has the power to create and approve its own budget. The budgets are generally intended to be revenue neutral.
- It may keep excess revenues from operation. This permits a Parking Authority to create reserves for future expansion and renewal and replacement.
- It has the power to issue bonds. Although theoretically possible, because of much more favorable interest rates, parking authorities almost always work with the City in which they reside and seek its backing.

The following Organizational Chart depicts a full service Parking Authority that is self-operated:



As noted throughout this section of the report, the Clarksville Parking Authority does not follow this typical organizational structure as the size of the public parking system and the complexity of operations did not warrant the hiring of dedicated in-house parking authority staff. The various positions and responsibilities are, at present, distributed through a variety of City departments. This decentralization of responsibility greatly limits the effectiveness of the Parking Authority and public parking system as well as its overall accountability.

## 2.1 Organizational Recommendations

As evidenced by the characteristic traits of each managerial public sector approach to parking identified, operations in Clarksville share some aspects of all the forms of management and governance listed. The Clarksville Parking Authority is a politically independent authority whose Board of Directors are representative of the Downtown but it is dependent through the “Parking Department” and “Parking Division” definition on other City agencies for the provision of all services.

National experience proves that the traditional definition and organizational structure of a parking authority has proven to be the most effect in managing public parking assets. Based on the operational conditions found in the City of Clarksville, it is recommended that the City of Clarksville maintain its Parking Authority approach to oversight of its parking program.

Parking authorities are more successful in the creation of a sole source responsibility center. However, a change in the way Clarksville’s Parking Authority conducts business on a daily basis is also recommended.

*The Clarksville Parking Authority must begin to take a more proactive roll in managing daily field operations through in house management and formally contracted operations. To achieve this goal, the Clarksville Parking Authority must establish an in-house Parking Manager position who reports directly to the Chairman of the Parking Authority. This person’s responsibility will be to oversee all parking operations including enforcement, permit sales, revenue collection, maintenance, budget compliance, parking utilization, vender coordination, and rate management.*

A salary survey of parking managers and supervisors employed by cities the size of Clarksville and with similarly sized parking programs reveals the average pay range for a parking manager to be between \$45,000 and \$60,000 per year. Factoring burden (payroll taxes, workers comp, and health and welfare), the Parking Authority must budget between \$55,000 and \$70,000 per year for this position. The parking manager or supervisor would need to be employed directly by the

Parking Authority in order to ensure that his or her duties are not convoluted within another department's requirements. This position must require hands-on management experience of similar sized parking operations

## 2.2 On-Street Parking Recommendations

*Due to current volume and parking utilization levels within the study area in Clarksville, it is recommended that the City continue to use the Duncan single-space parking meters for its on-street parking program versus multi-space meters.* The only benefit to this recommendation is that there will be no capital cost associated with the purchase and installation of new on-street revenue control devices at this time. However, the City of Clarksville must begin preparing to incorporate modern technology as the city grows and parking demand increases.



*Typical Multi-Space Meter Installation*

Each multi-space meter can monitor 10 to 15 on-street parking spaces, depending on the configuration of the parking and street layout. The cost of each meter, depending on type and features, ranges between \$10,000 and \$15,000 excluding installation. It is estimated that the cost of full replacement of the single space meter system with a multi-space meter system in

downtown Clarksville would cost in the range of \$200,000 to \$300,000 for the approximate 20 multi-space meters that would be required and approximately \$50,000 for installation. As previously noted before, it is not recommended at this time to replace the current on-street metered system; however, given the significant benefits for this technology, it is recommended that the City plan for this service enhancement and its installation be phased over time.

*In an effort to keep parking manageable and user-friendly, providing consistent time limits within a central business core is recommended.* The current 2-hour limit used for on street parking is in line with general parking standards used throughout the United States. The exception to this recommendation is loading zones, which should be limited to 20 minutes in order to avoid unauthorized short-term parking. The City of Clarksville must maintain its current 2-hour time limit.

On-street parking is the most convenient and therefore most valuable parking asset in any business district. On-street parking rates should be greater than an equivalent duration in an off-street facility. For example, if off-street parking for one hour is \$0.50, the on-street rate should be \$0.75 or greater. Overall, parking rates for both short-term and long-term on- and off-street facilities should encourage a greater distribution of demand, where cost conscious individuals could find inexpensive parking on the periphery of an area while the convenience conscious individuals could find “front door” parking but at a slightly higher price. Parking rate recommendations will be examined once the true cost of the public parking system in Clarksville is quantified and compared to rates changed in similar communities.

### **2.3 Off-Street Parking**

*For the permit parking lots, it is recommended that all reserved parking, whether it is by stall, section or parking lot, be eliminated.* By its nature, reserved parking creates a very poor utilization of parking space because parking is assigned on a per-stall basis and it does not account that not every space is utilized at any given time. In order to best utilize a parking area, permit parking is generally oversold in order to account for vehicles that are not parked, leading to greater utilization and ultimately more revenue.

*Non-reserved permit parking is the most efficient method to manage existing parking lots and this program design criteria must remain as currently configured.* As for the permits themselves, in order to maintain the greatest amount of control and to minimize manipulation, it is recommended that permits (hang tags) expire monthly. If there is a need to issue semi-annual or even annual permits, it is imperative to keep in mind that the longer the permit is valid the more potential problems can arise.

Regardless of the length of time they are valid, parking permits must have the following features:

- Be individually numbered on both sides and logged to the actual user.
- The expiration date or month for which it is valid should also be clearly visible.
- The location for which the permit is valid should be clearly visible.
- Color-coded by location.
- Alternate color by month for easier identification.
- Foil security features that allow for permits to not be duplicated.

Given the long-term duration of time permit holders often require to park on a daily basis, parking spaces that are allocated to permit holders must be located in peripheral parking facilities or in the less convenient locations in a parking structure. In the case of Clarksville's Cumberland Plaza Deck, reserved parking is located in the most convenient locations. In the case of County and private sector employees, the upper levels of the parking structure have been allocated to their use. These spaces are the most visible and accessible to the County Courthouse and local businesses and must be made available to visitors for their use. In the case of the Sherriff's Department and other County services to the east of the deck, the most convenient surface parking and grade level spaces are reserved for County vehicles. These spaces may be more valuable to short-term parkers.

*If not already required, the City of Clarksville must also require each person who purchases or uses a parking permit to fill out a registration/agreement form prior to being allowed to park.*

These forms allow parking management to collect important personal and vehicle information in the event the driver of a car needs to be contacted (lights left on, etc.). It also spells out the

parking rules and regulations and what may occur if a user does not comply with published regulations. Having the user sign the form indicating that they understand the rules and are willing to comply with them then makes them accountable in the event parking regulations are violated.

It is understood that the City of Clarksville does not currently require that parking permits be returned by those who no longer have a use for them. Even when permits are prepaid, this practice must be eliminated for the following reasons:

- Individuals may give their permits to others, which will result in people not be properly registered with parking management.
- The number of permits issued does not equal the number being used.
- Parking management cannot be able to efficiently utilize the permit parking areas because they do not know how many permits are actually being used.

As with on-street parking, proven technologies should be incorporated into off-street transient parking operations. These technologies allow for operations to become more streamlined, more user-friendly for both the operator and customer, and are more cost-effective. For the transient surface lots, multi-space pay-by-space or pay-and-display automated pay-stations would best suite the parking operations. These systems are very similar to single space meters with the major difference being that with pay-by-space, people pay according to whichever numbered parking stall they are parked in. With pay-and-display, the customer obtains a parking ticket/receipt that is put on the dashboard of the vehicle as proof of payment. Following are the benefits of both systems.

The benefits to parking management of using this system would be:

- In each facility, a single pay-station would replace all single-space meters.
- Reduced maintenance, enforcement and collection costs.
- Less equipment to maintain.
- Modular construction means repairs can be made quickly.
- Pay-station can notify parking personnel remotely if there is a malfunction.

- Rates can be easily changed.
- Pay-station can generate detailed transaction and revenue reports.
- Validations can be accepted.
- Credit cards can be accepted.
- Pay-stations can give change.
- Customers are provided with a receipt.
- Easier enforcement.

The benefits to customers of using this system would be:

- Permits require extra enforcement time.
- Cannot keep certain parking users out of unauthorized areas (no gates).
- Ability to pay with cash, coin or credit card.
- Ability to receive change.
- Parking can be validated my merchants and businesses.
- A receipt is provided as proof of payment.

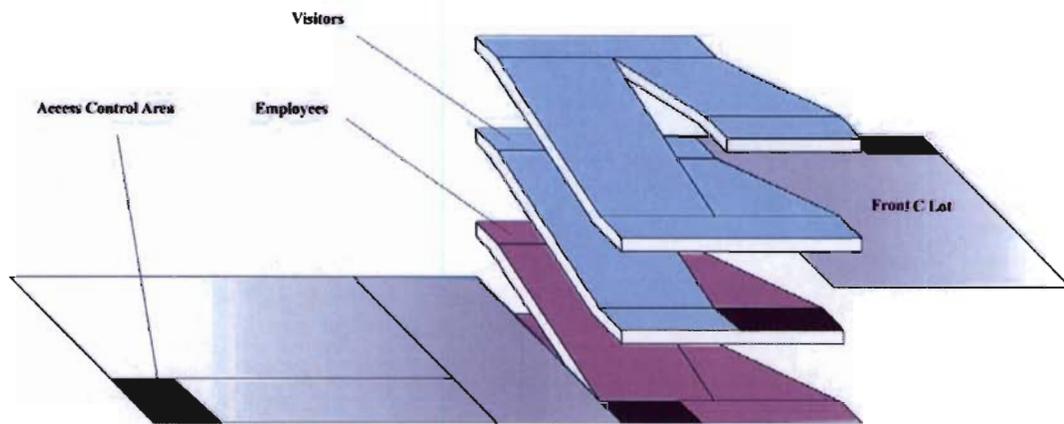
#### **2.4 Parking Access and Revenue System (PARCS)**

*Since the Cumberland garage is accessed through two surface parking lots, it is recommended that a gated system be installed to allow for the most effective method of access and revenue control.* This system would also eliminate the need for parking enforcement of the single space meters already located in the parking garage. For permit holders, this system would require the conversion to access cards to enter and exit the parking facility. This results in permits no longer being required for monthly parkers at this facility. For hourly (transient) customers, it is recommended that a pay-on-foot system be installed. A pay-on-foot system works in following manner:

The system requires a customer to be issued a magnetic stripe ticket from a ticket dispenser upon entry. When exiting, the ticket user is required to use a pay-on-foot station. The user will insert

their ticket into a reader that calculates the amount owed. The customer then inserts cash or swipes a credit or debit card in the same unit to satisfy payment. Once payment is received the user is reissued their ticket where upon they are required to insert their paid ticket in an exit verifier to raise the exit gate. Exhibit M illustrates in conceptual format where access control points (both externally and internally) will be located while Exhibit N shows some example pay-on-foot stations.

*Exhibit M  
Placement of Access and Revenue Control Equipment & "Nesting" of Monthly Permit Holders*



*Exhibit N: Parking Access and Revenue Systems*



**Typical Pay-on-Foot Station**



**Typical Ticket**

This type of system utilizes no cashiers. Among the benefits are:

- No parking enforcement required – more user friendly
- Excellent access control
- Reduced labor costs and associated expenses
- Unlimited rate structure, including free parking for limited periods
- Ability to quickly change parking rates
- Ability for merchants and businesses to validate customer parking
- No human manipulation in individual transactions
- Better revenue reporting capabilities
- Real-time reporting capabilities
- Remote troubleshooting
- Equipment has the ability to notify personnel of problems by phone, pager or computer in real-time.

Because this system will be integrated with the surface parking lots adjoining the parking garage, it would be most cost-effective to designate areas within this facility by user type. This plan would also allow transient parkers to park in the areas that are the most attractive to them, thereby providing an incentive to transient parkers to use the facility. This can be accomplished through the use of additional gated areas within the parking facility. The estimated cost for this type of system is as follows:

Gated system with pay-on-foot features	\$200,000
Management software	\$27,000
Card-Access equipment	\$30,000
Shipping, installation, site preparation	\$75,000
<u>10% contingency</u>	<u>\$33,200</u>
<b>Approximate Total*</b>	<b>\$365,200</b>

\*Estimate includes one nested area within facility

## 2.5 Employee & Residential Permit

*Offering discounts for the purchase of multiple permits is not recommended.* While this practice may seem appealing to those who require multiple permits, the reality is that employers or business owners will only purchase what they have an actual use for. If a user requires five permits, they will not purchase an additional permit in order to receive a 10% discount. There is no need to discount permit parking as revenue is impacted by this practice. While there may be a perception of improved customer service, managing a discount program is more time consuming and creates additional permit rates that must be tracked. This also provides the public perception that larger businesses are given preferential treatment over smaller businesses. In addition, operational costs remain the same for the Parking Authority no matter the number of permit purchased so discounting the cost of parking is financially detrimental to the Parking Authority.

## 2.6 Validation Programs

As parking fees increase it often becomes necessary to develop discounted parking program for visitors and shoppers of a downtown area. A merchant validation program allows a shopper to visit a local business and receive discounted parking. Most often, a predetermined dollar amount, determined by the merchant and the parameters of the program, is provided to shoppers who may meet purchasing requirements to be eligible in the program or to clients of professional services provided within the business district. To avoid abuse of the program, the Parking Authority will be required to monitor the usage of each participant business to ensure that businesses are not providing this reduced cost program to its employees. Validation sales levels for all merchants must be tracked on a monthly basis to identify user trends. After one year of operation, the City may want to limit the amount of discounted parking based on usage. If the merchant wishes to extend the program above the preset limits, it could do so on its own with no financial participation from the City. Under no circumstance should the Parking Authority fully fund the cost of this program. At best, the Parking Authority should discount the cost of validated parking no more than 25%. The remaining cost should be funded by the local business association or local merchants on an individual basis.

## **2.7 Parking Enforcement**

Handheld ticket writers serve multiple benefits to a parking enforcement program and they should be tied into a parking database in order to serve their intended purpose. Beyond issuing computer-generated citations, they offer the following advantages:

- The ability to track scofflaws
- Track parking occupancy and non compliance data
- Provide electronic data base information for registration holds
- Track efficiency of parking enforcement officers

The City of Clarksville currently has two handheld devices but has reported that one is not working forcing all but one enforcement person to issue hand-written citations. While hand-written citation books are a good back up, maintaining an inventory of backup handheld devices is strongly recommended. In the event a handheld becomes inoperable, having a backup allows for the enforcement program to continue unaffected (not having to switch user habits or responsibilities) while the malfunctioning unit is repaired. Because handheld devices store important data (citation information, occupancy information when applicable, etc.) that is uploaded to the management database, having to revert to handwritten citations causes a disruption in the management tools available to the parking program. If the City's handheld units use a printer that is not a part of the handheld itself to print citations, it is also recommended to have a back up printer as a handheld cannot be used to issue citations if it does not have a working printer. Since there are currently three enforcement officers, it is recommended that there be a least two backup handheld units and printers.

The current hours of enforcement in the downtown area of the City of Clarksville is 8:00 AM to 5:00 PM, Monday through Friday. At present, the demand for parking during the evenings does not warrant the extension of fee-based on-street or off-street operations beyond 5:00 PM.

However, with continued revitalization, particularly with regards to restaurant and theater activity, the Parking Authority must be prepared to address the need to eventually extend

enforcement hours beyond 5:00 PM. It is recommended that the programming of any new access and revenue technology maintain sufficient flexibility so that these changes can be accommodated with little or no expense.

***Parking enforcement personnel need to ensure that their enforcement patterns are not regular and predictable.*** It is very easy to get into the habit of checking their respective territory in the same pattern everyday. This leads to officers checking the same area of patrol at about the same time every day. Regular parking customers are often very in tune with predictable enforcement patterns and will use this knowledge to their advantage in an effort to circumvent the system. Enforcement personnel must alter their routes on a daily basis.

The City of Clarksville does not presently have a booting or towing program for repeat offenders or for users that commit major parking violations. Because of this, there are likely numerous users who have accumulated many unpaid citations and will continue to do so as long as they know there is no real penalty for not paying their citations. This translates into lost revenue. For this reason, the Parking Authority must implement a booting and towing program. While it is currently viewed by the Parking Authority as too labor intensive, a well-designed program has its benefits. At the very least, this program has the ability to break even in terms of cost if additional fines are implemented for the towing or immobilization of a vehicle. By using handheld ticket writers that are tied into a central parking database and management system, the Parking Authority must have the ability to easily track vehicles that have accumulated numerous citations.

***Towing should only be done in extreme circumstances or when space is very limited.*** Typically, a municipality will enter into an agreement with a local towing company to provide towing services. Any tow must be authorized by approved Parking Authority representatives in advance. Any fees associated with the actual tow are paid by the customer directly to the towing company; however, the towing company should not be allowed to release the vehicle until all unpaid fines are paid to the Parking Authority. An additional release fee may be charged to cover the labor costs associated with the tow. Procedures need to be in adopted to establish the towing criteria and associated fees. Immobilizing or booting cars is considered a good alternative to towing. When space is not an issue, an immobilized vehicle sends a message to the public that

scofflaws are taken seriously and dealt with accordingly. Typically, parking programs that boot will do so after a vehicle accumulates a specific number of unpaid parking citations or if they reach a specified dollar amount of unpaid fines. The more aggressive programs set the number of unpaid citations at three. Once a vehicle has accumulated three or more unpaid citations, the vehicle is subject to being booted. Other programs will set booting parameters based on amount owed. This number depends on the amount of fines. For a fine structure like Clarksville's where the fine amounts are not large, it is best to set the dollar amount lower as it generally takes more citations to reach a specified dollar amount. In this case, it is recommended to set the boot limit at \$200.00 in unpaid fines. This number is more than generous (twenty unpaid overtime citations), yet it still sets a realistic limit for the amount owed. Boots are a very inexpensive and an effective way to collect unpaid fines. Procedures need to be in place to establish the booting criteria and associated fees. The cost of the process of tracking and booting a car can be recuperated by charging a "boot fee" to have the boot removed. Setting this fee at \$50, in addition to what is owed on unpaid citations is a industry standard method of recouping the additional labor costs.

Finally, parking enforcement personnel, in association with the Police Department, are responsible for the enforcement of parking regulations outside the downtown area. These areas include residential and commercial areas outside the downtown district. As there is no industry standard that dictates the distinct physical area of responsibility for parking authorities, the majority of smaller agencies, similar to Clarksville, most often do not migrate from the central business district. Larger parking authorities with equally larger budgets do enforce commercial business and residential areas outside their main business district. However, these larger agencies patrol areas of high levels of development density and very limited curbside parking.

*For this reason, it is strongly recommended that the Parking Authority focus solely on the downtown business district and rely on the Police Department to enforce parking regulations outside the downtown.* The Parking Authority's charter will need to be modified to reflect this change in focus. This recommendation can be revisited as the Parking Authority grows and becomes financially capable to support this change.

**2.8 Violations/Fine Structure**

As with any parking program where enforcement is required, defined parking violations must encompass all possible violations that may be encountered within a specific area in a way that leaves little room for doubt for both the parking personnel and parking customer. If there is any doubt or grey area, more citations will be appealed. The City of Clarksville's defined violations do a relatively good job of encompassing possible violation types; however, some additional definitions could be added to ensure that there is no confusion. Per Section 14.5 of the City of Clarksville's' Parking Regulations, the Parking Authority is authorized to establish a schedule of civil penalties, including late fees and costs, none of which may exceed one hundred dollars (\$100.00) for a violation of any parking regulations. Tables 14a and 14b outline the current and recommended violation types, fines and violations in which they could be issued:

*Table 14a: Current Violation Types*

Violation Type	Fine	When Issued
Overtime Parking	\$10.00	Parked longer than time limit. Expired parking meter.
Parked in Restricted Zone	\$20.00	Parking in a crosswalk or other pedestrian right-of-way. Blocking a driveway.
Parked Facing Wrong Direction	\$20.00	Vehicle parking in wrong direction on street
Parking on or too Close to Sidewalk	\$20.00	Parked on or close to sidewalk
Parking in Fire Plug Zone	\$50.00	Parked within 15' of fire plug
Blocking Traffic	\$30.00	Parked in roadway
Reserved Parking Only (No Hangtag)	\$30.00	Parked in permit or reserved area without proper permit
Parking in Handicapped Zone	\$50.00	Parked in handicapped stall without handicapped placard or license plate.
Parking in Fire Lane	\$50.00	Parked in fire lane
Other	\$30.00	All other violations.

*Table 14b: Recommended Violation Types*

Violation Type	Fine	When Issued
Overtime Parking	\$15.00	Parked longer than time limit.
Expired Meter	\$15.00	Expired parking meter.
Parked in More Than One Space	\$15.00	Parked on or over a stall line
Expired Permit	\$20.00	Using an expired permit
Parked in Restricted Zone	\$20.00	Parking in a crosswalk or other pedestrian right-of-way.
Parked Facing Wrong Direction	\$20.00	Vehicle parking in wrong direction on street
Parking on or too Close to Sidewalk	\$20.00	Parked on or close to sidewalk
Parking in Fire Plug Zone	\$50.00	Parked within 15' of fire plug
Blocking Traffic / Driveway	\$50.00	Parked in roadway or driveway
Reserved Parking Only (No Hangtag)	\$50.00	Parked in permit or reserved area without proper permit
Parking in Handicapped Zone	\$100.00	Parked in handicapped stall without handicapped placard or license plate.
Parking in Fire Lane	\$50.00	Parked in fire lane
Altered, False or Stolen Permit	\$100.00	Using an altered, false or stolen permit.
Other	\$30.00	All other violations.

The recommended violation types are similar to the existing ones; however, they encompass a bit more of the common violations and will leave little doubt as to why a citation has been issued. Maintaining an “Other” category is a good idea but the enforcement officer needs to be as specific as possible when describing the violation. Some fine amounts have been increased slightly to act as a reasonable deterrent for anyone who thinks about breaking a parking rule.

While the parking rates and fines for nearby/similar municipalities have been researched, see Table 15, appropriate rates, violations, and fines are based on conditions specific to each municipality. Fine increases are made in response to a failure by that fee to affect change. Individual’s in Chattanooga, for example, may be less sensitive to a \$10 meter violation than an individual in Clarksville because the hourly rates are higher, there is insufficient short-term parking in the area, and/or the individual chooses to park illegally as a “cost of doing business”. As the parking manager and Parking Authority in Clarksville track violations and note no change in the number of violations, they may determine that a fine increase is warranted. In short, the

fine recommendation for Clarksville is simply a starting point upon which the enforcement program is evaluated and continually re-evaluated.

*Table 15: Parking Rates and Overtime Meter Fines for Nearby/Similar Municipalities*

Municipality	Hourly Rates		Commuter Fees		Overtime Meter Violation/Fine
	Off-Street	On-Street	Daily	Monthly	
Knoxville	1\$/hour	\$0.50/hour	\$5 to \$7	\$20	\$11.00
Paducah	Free	NA	NA	NA	NA
Jackson	NA	NA*	NA	NA	\$5.00
Nashville	\$2 to \$10/hour	\$ 0.75 to \$ 1/Hour	\$3 to \$16	\$30 to \$205	\$10.00
Chattanooga	\$1 to 2/hours	\$ 0.50 to \$1/Hour	\$3 to \$8	\$55 to \$90	\$11.00
Murfreesboro	Free	NA	NA	NA	\$2.00
Clarksville (2009)	\$.5/ Hour	\$ 0.50/Hour	NA	\$25 to \$40	\$5.00

### 2.9 Appeals Process

The City of Clarksville currently utilizes a Parking Board to hear appeals generated by the issuance of parking citations. Request for appeal are presented both in writing and via attendance by the parking violator during Parking Board meetings as time is set aside before the official meeting begins. Violators present their case and a decision is made by the Board for each appeal presented. Appeals that are not granted are in turn forwarded to the County Court System for hearing by a sworn court officer. This procedure occurs for parking citations written by parking enforcement officers or sworn police officers. There are advantages and disadvantages to this process.

Advantages include:

- Nuisance citations (i.e. handicapped placard not visible, written in error, etc.) are kept out of the courts judicial system.
- There is little cost associated with this program as the Board is comprised of volunteers.

Disadvantages include:

- It could be construed that a Board member(s) are friendly with an individual making the appeal.
- Could add increased levels of frustration for the person making the appeal as a second appeal process is necessary and has to be scheduled if an individual does not receive a favorable determination from the Board.

The appeals process requires that a large amount of time and labor be allocated to the process of scheduling, hearing and completing the required paperwork for follow up. The appeals process in Clarksville is similar to that of a college or university setting where a parking board hears initial appeals. With the hiring of a Parking Manager, it is recommended that this individual assume the responsibility of hearing appeals that can easily be dismissed. These would include improper handicapped parking placard placement, jammed meters, etc. This would reduce the number of appeals that the Board would be required to hear on a monthly basis.

This change in procedure would require that the Parking Manager fully document all dismissed tickets and that all dismissed tickets be supplied to the Board by the Parking Manager in a report format, on a monthly basis, so the Board can track and review the percentage of citations that are being dismissed by the Parking Manager.

## **SECTION 6 – PARKING SYSTEM COSTS & RATE RECOMMENDATIONS**

Section 4 recommends that the existing parking authority approach to management be reinvented. An experienced parking manager would be retained and would be responsible for the day-to-day supervision. The manager and the Parking Authority would contract all maintenance, enforcement, and revenue collection tasks through a competitive public bidding process, a.k.a., privatization. The City's Finance and Revenue Department would continue to support revenue collection efforts through its existing cashier operations at City Hall. Additionally, the Finance

and Revenue Department would be contracted to provide financial management and auditing services for the Parking Authority.

To evaluate if this recommendation is feasible from a financial perspective, the following analysis combines costs associated with the downtown's current parking operations, including debt service payment, costs associated with staffing, equipment, and technology upgrades, and compares those costs to estimated parking revenues. Key to that analysis is the need, justification, and acceptability of parking rate increases. Note that all costs and revenues are estimated and should not be considered the absolute capital and operating budget under this program. The analysis simply is an attempt to illustrate the parking system's fiscal ability to fund improvements and more importantly set aside net revenues to support long-term maintenance of structured parking facilities, which is not occurring today.

### **1.1 Current Maintenance Costs**

Based on FY 2008 figures that were provided by the Finance and Revenue Department, the cost to operate and maintain the downtown parking system equaled \$348,800, of which \$145,500 is associated with debt service. While these costs include contractual services through the Finance and Revenue Department for a variety of services, it is obvious that they don't include annual and long-term maintenance and structural rehabilitation costs. Therefore, some comparison to industry standard operating and maintenance costs is required. Generally speaking, its costs \$200 per space per year to operate and maintain on-street and surface lot metered spaces. This includes enforcement, revenue collection, maintenance, snow removal, and cleaning. Unmanned structured parking facilities similar to Cumberland Plaza and the Transit Center cost approximately \$450 per space per year as they also include lighting, electricity, security, and structural repair and maintenance. Applying these costs to the public parking inventory within the study area suggest that the theoretical cost to operate and maintain parking equals \$277,150 (267 structured spaces times \$450 plus 785 curbside and surface lots spaces times \$200). In comparison to the management fee that the City/Finance Department charged the Parking Authority in FY2008 (\$203,266), it appears that the current fee is insufficient as it does not include provision for long-term maintenance. Typically, the research fund recommendation for

structured parking is \$100-150 per space per year and \$40-60 for curbside/surface parking. Note that this cost comparison does not include asset depreciation. Therefore, and for purposes of cost projections, the analysis of annual contract management/privatization of basic services will be based on \$277,000 plus an additional \$15,000 for cost increases and procurement. Note that with the introduction of access and revenue control equipment at the Cumberland Plaza facility there would be some opportunity to reduce parking enforcement staff and its associated cost. That reduction was not factored into this analysis.

### **1.2 Recommended Staffing and Contract Management Costs**

It has been recommended that the newly reinvented Parking Authority must hire a full-time parking manager at a salary between \$45,000 and \$60,000. The employee benefit package (health insurance, dental insurance, etc.) would increase that figure by 30%. No other staff is warranted. Regarding the capital cost for new equipment and technology, there are only two areas that need to be addressed at present. They include the purchase of additional handheld ticket issuance devices and the purchase, installation, and maintenance of access control and revenue collection equipment for the Cumberland Plaza garage and adjacent surface lots. The capital costs amortized over a 10-year period would equal roughly \$50,000 per year and the maintenance contract for the access and revenue control equipment would be approximately \$10,000.

Excluding debt service costs of existing and/or future parking facilities, it could be estimated that the parking system would cost approximately \$427,000 annually (\$292,000 current management fee plus \$70,000 parking manager salary/benefits plus \$50,000 capital amortization plus \$15,000 equipment maintenance contract). Including the Parking Authority's other obligations of \$224,150, which include debt service payments, depreciation, and amortization, the total cost of the parking system would be \$651,150. Based on the 1,052 on-street and off-street spaces in the Parking Authority's inventory that cost would equate to \$619 per space per year. Given the size, age, condition, need to fund long-term maintenance, and management approach to public parking in downtown Clarksville, this figure seems appropriate.

### **1.3 Annual Debt Service Payment Future Parking Structures**

Concepts presented earlier (see Exhibit K1 through K4) noted the cost to develop additional parking structures on four alternative sites. Though the analysis of parking supply and demand does not support the decision to build a new parking structure, the Parking Authority and its financial program must preserve some modest revenue each year in anticipation of this need. Roughly speaking, the annual debt service payment on \$5 million parking structure could equal \$400,000. While the current parking system cannot support this cost it is recommended that a structured parking reserve fund be created to retain a fixed percentage of surplus revenue (if any) so as to lessen the financial impact when a new parking structure is required.

### **1.4 Potential Public On-Street and Off-Street Revenue**

In FY2008 the Parking Authority generated \$385,876 in parking revenue from meters, permits, fines, and miscellaneous sources. Table 16 attempts to summarize that revenue by facility and by space (year and weekday) in an effort to present the relative value of metered (transient) vs. permit parking. Note that this is a general analysis as some facilities possess both permitted and hourly parking spaces which complicates the segregation of metered and permitted revenue.

*Table 16: FY2008 Parking Revenue and Per Space Comparisons*

	FY2008	# of Spaces	Revenue per Space per	
			Year	Weekday
<b>On-Street Parking Revenue</b>				
Parking Meters	\$90,419.76	247	\$366.07	\$1.41
Loading Zones	\$23,915.59	---	---	---
<b>On-Street Total</b>	<b>\$114,335.35</b>	<b>247</b>	<b>\$462.90</b>	<b>\$1.78</b>
<b>Off-Street Parking Revenue</b>				
Parking Meters				
Cumberland Plaza (1)	\$79,138.96	198	\$399.69	\$1.54
Parking Permit Sales				
Cumberland Plaza	\$29,181.46	171	\$170.65	\$0.66
Transit Lot	\$17,198.41	47	\$365.92	\$1.41
Franklin St. Lot	\$1,846.88	23	\$80.30	\$0.31
Roxy Lot	\$10,155.71	43	\$236.18	\$0.91
Trinity Lot	\$3,365.92	19	\$177.15	\$0.68
3rd St. Lot	\$2,250.00	71	\$31.69	\$0.12
Main St. Lot (2)	\$7,686.34	69	\$111.40	\$0.43
Hiter & Commerce St. Lot	\$2,310.79	192	\$12.04	\$0.05
Lower Biggers Lot (2)	\$1,165.66	22	\$52.98	\$0.20
Miller Property Lot Rental (2)	\$843.75	43	\$19.62	\$0.08
Residential Parking-In Town	\$1,216.00	na	na	na
<b>Off-Street Total</b>	<b>\$156,359.88</b>	<b>898</b>	<b>\$174.12</b>	<b>\$0.67</b>
<b>Fine/Enforcement Revenue</b>				
Parking Meter Fines	\$99,105.49	---	---	---
Cumberland Plaza Fines	\$1,732.38	---	---	---
<b>Fine/Enforcement Total</b>	<b>\$100,837.87</b>	<b>1052</b>	<b>\$95.85</b>	<b>\$0.37</b>
<b>Other Miscellaneous Revenues</b>	<b>\$14,343.52</b>	<b>---</b>	<b>---</b>	<b>---</b>
<b>Total Parking Revenue</b>	<b>\$385,876.62</b>	<b>---</b>	<b>---</b>	<b>---</b>

At \$0.50 per hour, metered parking spaces on-street and in the Cumberland Plaza facilities generate nearly \$180,000 in FY2008. This equates to just under \$400 per space per year and \$1.50 per space per day. The high demand permitted parking facilities like Cumberland Plaza, the Transit Lot, and the Roxy Lot generated between \$177 and \$365 per space per year. The Transit Lot revenue is on the high end of the scale because of its small size, high utilization, and hirer monthly fee (\$40 reserved). Low demand permit lots only generate between \$31 (3<sup>rd</sup> St. Lot) and \$80 (Franklin St. Lot) per space per year. Not surprising, the metered on and off-street program is approximately 300% more effective in generating revenue than permitted spaces (\$1.50 per space per day average from metered vs. \$0.50 average from permitted spaces). Therefore, metered rate increases, particularly in high demand on-street areas, would have the most significant effect both on revenue and the distribution of parking demand.

*It is recommended that parking rates for the 24/7 on-street metered spaces increase from \$0.50 currently to \$0.75 per hour, which is less than or equal to those rates currently charged in Nashville and Chattanooga.* Presuming no drop or increase in parking activity, then the on-street system could generate an additional \$45,000 annually in year one (roughly \$90,000 currently generated times 50% rate increase). That revenue increase also presumes there would be no increase in parking utilization over time. A second rate increase to \$1.00 per hour should occur within the next five years to absorb increased operating costs associated with inflation. Off-street metered parking rates must remain at \$0.50 per hour during the first year and increase to \$0.75 in coordination with on-street rates increase overtime as these off-street spaces are less convenient and it would be politically prudent to retain some low cost, short-term options.

As noted in Section 1, reserved and restricted off-street parking account for 550 of the existing 1,052 public parking spaces. These spaces serve contract obligations with other government entities and the needs of private sector employees and employers. Monthly permits range in rate from \$25 to \$40 and generated \$77,221 in FY2008 excluding Cumberland Plaza meter revenue. Monthly fees are presently reduced if a block of permits are purchased. While these rates are equal to or greater than the rates charged in Knoxville, they are but fraction of the monthly rate in Nashville and Chattanooga. More critical is the fact that at \$25 or \$40 per month these rates are insufficient to cover the cost of current operations and debt service. In short, the monthly rates in Clarksville are insufficient to cover the actual cost of the level of parking service that is provided today. Therefore, and in addition to the recommendation regarding discount and reserved permits (see Section 4), it is proposed that monthly parking rates in Clarksville increase by \$10 across the board in year one and increase annually to a stabilized rate of \$60 to \$80 per month by year five. Table 17 illustrates the recommended rate structure increase by parking facility.

**Table 17: Monthly Permit Rate Recommendations by Year and by Facility**

Location	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014
Residential Permits	\$25	\$35	\$40	\$45	\$50	\$60
Transit Garage	\$40	\$50	\$60	\$70	\$80	\$80
Roxy Lot	\$25	\$25	\$30	\$40	\$50	\$60
Main Street Lot	\$30	\$30	\$40	\$50	\$60	\$70
Cumberland Plaza	\$30	\$30	\$40	\$50	\$60	\$70
Miller Lot	\$25	\$35	\$40	\$45	\$50	\$60
Lower Biggers Lot	\$25	\$35	\$40	\$45	\$50	\$60

### **1.5 Parking System's Financial Feasibility**

To determine if the various management, staffing, equipment, and rate recommendations could be supported by downtown Clarksville current level of economic activity Table 18 illustrates the layering all of existing, projected, and estimated costs and revenues through FY2018. In addition to the contract, salary/benefit, and equipment costs referenced earlier, the financial analysis includes the following assumptions:

- The TMBF Loan is repaid by FY2012
- The Management Fee and salary/benefits increase by 4% per year
- Amortization and Depreciation expenses remain unchanged
- Employee and resident permits rates/revenues increase 15% in FY10, 10% in FY11-14, 15% in FY15, and 10% in FY16-18
- Metered rates/revenues increase by \$45,000 in FY10, stabilize, and the increase by 20% in FY14 with a second rate increase to \$1.00 per hour
- Revenue from parking fines/violations would remain unchanged
- Parking activity in Clarksville does not increase or decrease prior to the construction of a new parking deck in FY2016
- Annual debt service payment on a new 300 space parking structure would be \$400,000 and the facility would generate at minimum \$200,000 per year in operating revenue.

**Table 18: Clarksville Parking Authority 10-year Operating Proforma Analysis**

	Actual FY2008	Projected FY2009	Recommendations Impact														
			FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018						
<b>Debt Service Payments</b>																	
Interest Paid	\$118,200	\$118,200	\$118,200	\$118,200	\$118,300	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interest Expense	\$27,300	\$27,300	\$27,300	\$27,300	\$27,300	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total Debt Service Payments</b>	<b>\$145,500</b>	<b>\$145,500</b>	<b>\$145,500</b>	<b>\$145,500</b>	<b>\$145,600</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Operations &amp; Maintenance Costs</b>																	
Management Fee	\$203,300	\$211,400	\$277,000	\$288,100	\$299,600	\$311,600	\$324,100	\$337,100	\$350,600	\$364,600	\$379,200	\$394,000	\$409,000	\$424,000	\$439,000	\$454,000	\$469,000
Long-term Sinking Fund Reserve	\$0	\$0	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Staff Salary & Benefits	\$0	\$0	\$75,000	\$78,000	\$81,100	\$84,300	\$87,700	\$91,200	\$94,800	\$98,600	\$102,500	\$106,500	\$110,500	\$114,500	\$118,500	\$122,500	\$126,500
Equipment Fund Reserve	\$0	\$0	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
Equipment Capital Amortization	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equipment Maintenance Contract	\$0	\$0	\$0	\$15,000	\$15,600	\$10,000	\$10,400	\$10,800	\$11,200	\$11,600	\$12,000	\$12,400	\$12,800	\$13,200	\$13,600	\$14,000	\$14,400
<b>Total O&amp;M Costs</b>	<b>\$203,300</b>	<b>\$211,400</b>	<b>\$382,000</b>	<b>\$461,100</b>	<b>\$476,300</b>	<b>\$485,900</b>	<b>\$502,200</b>	<b>\$519,100</b>	<b>\$536,600</b>	<b>\$554,800</b>	<b>\$573,800</b>	<b>\$593,500</b>	<b>\$613,000</b>	<b>\$632,300</b>	<b>\$651,500</b>	<b>\$670,500</b>	<b>\$689,500</b>
<b>Total Debt Service and O&amp;M Costs</b>	<b>\$348,800</b>	<b>\$356,900</b>	<b>\$527,500</b>	<b>\$606,600</b>	<b>\$621,900</b>	<b>\$485,900</b>	<b>\$502,200</b>	<b>\$519,100</b>	<b>\$536,600</b>	<b>\$554,800</b>	<b>\$573,800</b>	<b>\$593,500</b>	<b>\$613,000</b>	<b>\$632,300</b>	<b>\$651,500</b>	<b>\$670,500</b>	<b>\$689,500</b>
<b>Operating Revenues</b>																	
Off-Street Total	\$158,000	\$164,300	\$188,900	\$207,800	\$228,600	\$251,500	\$289,200	\$289,200	\$489,200	\$538,100	\$587,000	\$635,900	\$684,800	\$733,700	\$782,600	\$831,500	\$880,400
On-Street Total	\$114,300	\$118,900	\$163,900	\$163,900	\$163,900	\$163,900	\$196,700	\$196,700	\$196,700	\$196,700	\$196,700	\$196,700	\$196,700	\$196,700	\$196,700	\$196,700	\$196,700
Parking Fines	\$100,800	\$100,800	\$100,800	\$100,800	\$100,800	\$100,800	\$100,800	\$100,800	\$100,800	\$100,800	\$100,800	\$100,800	\$100,800	\$100,800	\$100,800	\$100,800	\$100,800
Residential Parking	\$1,200	\$1,200	\$1,700	\$1,900	\$2,200	\$2,500	\$2,900	\$2,900	\$2,900	\$2,900	\$2,900	\$2,900	\$2,900	\$2,900	\$2,900	\$2,900	\$2,900
Other Revenues	\$11,300	\$11,800	\$11,800	\$11,800	\$11,800	\$11,800	\$11,800	\$11,800	\$11,800	\$11,800	\$11,800	\$11,800	\$11,800	\$11,800	\$11,800	\$11,800	\$11,800
<b>Total Operating Revenues</b>	<b>\$385,600</b>	<b>\$397,000</b>	<b>\$467,100</b>	<b>\$486,200</b>	<b>\$507,300</b>	<b>\$530,500</b>	<b>\$601,400</b>	<b>\$601,400</b>	<b>\$801,400</b>	<b>\$850,300</b>	<b>\$899,200</b>	<b>\$948,100</b>	<b>\$997,000</b>	<b>\$1,045,900</b>	<b>\$1,094,800</b>	<b>\$1,143,700</b>	<b>\$1,192,600</b>
<b>Operating Profit (or Loss)</b>	<b>\$36,800</b>	<b>\$40,100</b>	<b>-\$60,400</b>	<b>-\$120,400</b>	<b>-\$114,600</b>	<b>\$44,600</b>	<b>\$99,200</b>	<b>\$82,300</b>	<b>-\$135,200</b>	<b>\$850,900</b>	<b>\$880,200</b>	<b>-\$103,900</b>	<b>\$39,700</b>	<b>\$16,400</b>	<b>\$16,400</b>	<b>\$16,400</b>	<b>\$16,400</b>
<b>End of Year Cash</b>	<b>\$308,000</b>	<b>\$348,100</b>	<b>\$287,700</b>	<b>\$167,300</b>	<b>\$52,700</b>	<b>\$97,300</b>	<b>\$196,500</b>	<b>\$278,800</b>	<b>\$143,600</b>	<b>\$39,700</b>	<b>\$56,100</b>	<b>\$16,400</b>	<b>\$16,400</b>	<b>\$16,400</b>	<b>\$16,400</b>	<b>\$16,400</b>	<b>\$16,400</b>

While it is strongly recommended that the Parking Authority retain a full-time parking manager and begin retaining funds for long-term maintenance in FY2010, the parking program is fiscally unable to implement the access and revenue control system improvements for the Cumberland Plaza facility until the FY2011 or later. With the hiring of a parking manager, creation of a long-term maintenance reserve and with the rate increases recommended for on-street meters and parking permits in FY2010, a fiscal year operating loss of \$60,400 would be realized. This loss can be absorbed by the Parking Authority's existing End of Year cash balance which is projected to be \$348,100 by the end of FY2009. The costs associated with the control equipment purchase, installation, and maintenance contract are significant and would increase the annual operating loss. Fortunately, the End of Year cash balance is able to absorb those costs between FY2011 and FY2013 at which point gradually off-street rate increases and a second on-street rate increase takes affect. It is projected that by FY2015 the End of Year cash balance will increase to \$278,000. That cash balance may be sufficient to incur the fiscal impact of annual debt service payments associated with a new or expanded parking structure. The phasing of cost (green) and revenue (yellow) increases in the financial analysis are highlighted for ease of identification.

Note that this financial analysis is based on the current low levels of parking utilization. As noted in Section 1, only 60% of the Parking Authority's off-street spaces and 50% of the on-street spaces are occupied during the peak period. It also presumes that the parking system would not charge for parking during weekday evenings or weekends. As downtown Clarksville realizes increased vitality from continued redevelopment and development initiatives, the parking system would, in parallel, capture additional parking revenue associated with this success. At present, the Parking Authority must take modest yet positive steps towards managing this eventuality by strengthen it independence through staffing, privatization, and efficient and transparent contract management.

## **APPENDIX**

### **Handicapped Parking**

Several requirements are in place for handicapped parking. Per Tennessee Code/TITLE 55 MOTOR AND OTHER VEHICLES /CHAPTER 21 DISABLED DRIVERS AND PASSENGERS /PART 1 DISABLED DRIVERS LAW OF 1975 /55-21-108. Unauthorized use of disabled parking or placard -  
Violations –

#### Penalties:

(a) (1) Any person, except a person who meets the requirements for the issuance of a distinguishing placard or license plate, a disabled veteran's license plate, or who meets the requirements of § 55-21-105 (d), who parks in any parking space designated with the wheelchair disabled sign, commits a misdemeanor, punishable by a fine of one hundred dollars (\$100).

(2) In addition to the fine imposed pursuant to subdivision (a)(1), a vehicle which does not display a disabled license plate or placard, and which is parked in any parking space designated with the wheelchair disabled sign, is subject to being towed. When a vehicle has been towed or removed pursuant to this subdivision (a)(2), it shall be released to its owner, or person in lawful possession, upon demand; provided, that such person making demand for return pays all reasonable towing and storage charges and that such demand is made during the operating hours of the towing company.

(3) It is also a violation of this subsection (a) for any person to park a motor vehicle so that a portion of such vehicle encroaches into a disabled parking space in a manner which restricts, or reasonably could restrict, a person confined to a wheelchair from exiting or entering a motor vehicle properly parked within such disabled parking space.

(4) After July 1, 1992, signs designating disabled parking shall indicate that unauthorized or improperly parked vehicles may be towed and the driver fined one hundred dollars (\$100), and shall also provide the name and telephone number of the towing company or the name and telephone number of the property owner, lessee or agent in control of the property.

(b) Notwithstanding any other provision of law to the contrary, the provisions of subsection (a) shall be enforced by state and local authorities in their respective jurisdictions, whether violations occur on public or private property, in the same manner used to enforce other parking laws.

(c) (1) Any person not meeting the requirements of § 55-21-103 who uses a disabled placard to obtain parking commits a misdemeanor. The disabled placard used to obtain parking by a person not meeting the requirements of § 55-21-103 shall be subject to forfeiture and confiscation by state and local authorities in their respective jurisdictions.

(2) If a state or local law enforcement officer observes a violation of this subsection (c), such officer may confiscate the disabled placard. To recover such placard, a driver must demonstrate by a preponderance of the evidence that such driver was complying with § 55-21-103, at the time of the confiscation.

(d) Any person who unlawfully sells, copies, duplicates, manufactures, or assists in the sale, copying, duplicating or manufacturing of a disabled placard commits a Class A misdemeanor, punishable by a minimum one thousand dollar (\$1,000) fine and imprisonment for a time in the discretion of the court.

(e) Any person who is not a disabled driver as prescribed in § 55-21-102, and who willfully and falsely represents himself as meeting the requirements to obtain either a permanent or temporary placard commits a Class A misdemeanor, punishable only by a fine of not more than one thousand dollars (\$1,000).

#### **Accessible Parking & Code/Enforcement Changes**

The Americans with Disabilities Act (ADA) was passed to help end the discrimination against this group and aid in integrating them back into the workforce and mainstream America. Accommodations for convenient handicapped accessible parking became mandated by federal law. To address this requirement states began to issue “Disabled” hang tags and license plates to identify individuals qualifying for “accessible” parking spaces.

As with any well-intended program, abuse of the system has taken place. This abuse can be found throughout the nation but is particularly prevalent in areas where the population’s median age is found to be higher. Abuse includes relatives of disabled persons illegally using the credentials issued to use convenient disabled spaces or to avoid paying the prevailing parking fees. Abuse has reached such levels that various states and municipalities have begun to enact different methods of controlling this abuse.

Several years ago, the State of Florida placed a sunset on all issued disabled credentials and required individuals to reapply for new credentials with updated physician documentation. This action has been somewhat successful as it has helped eliminate some of the disabled credentials obtained fraudulently. Use by family members other than the actual person the disabled credential was originally issued to, still occurs. The State of Florida has set their “Handicapped Parking” violation at \$250.00 to discourage this and other types of misuse.

Different municipalities have also tried to tackle the problem of disabled parking abuse on their own. In 1984, the City of Huntsville, Alabama took an aggressive approach to enforcing disabled parking regulations by developing an “Advisory Commission for Handicapped Enforcement” (ACHE). This ten member committee is made up of one member from the City Council, the Parking Director, Parking Division Manager, Parking Inspection Manager, and five members of the community who are disabled or represent the interests of a disabled group. This committee serves in an advisory role and reports problems and concerns to the City’s Parking Agency for action. ACHE responsibilities includes reporting citizen’s complaints regarding abuse of existing disabled spaces as well as reporting non conformity with ADA regulations/ requirements by private-sector businesses in the City. This approach is more tactful since the use and supply of these needed spaces is conducted by persons who qualify for these spaces as well. The City of Miami Beach also takes a similar approach and maintains its own citizen’s action committee with the same basic responsibilities as has the City of Huntsville.

The first step to properly managing handicapped parking in the City of Clarksville is to conduct an ADA audit to ensure that there are a sufficient number of accessible parking spaces in its facilities. Once this is determined and any necessary improvements are made, the monitoring of these spaces must be closely documented. In addition, a task force must be established that includes individuals who are eligible for this type of parking. The purpose of this task force is to investigate this trend nationwide and evaluate how some of the approaches other communities have adopted could work for Clarksville. One such approach may be to charge prevailing parking rates for handicapped parking.