




City of Oxford

Oxford, Mississippi

Downtown Parking Study Phase II Draft Report

January 5, 2012



ATL11101.00

TimHaahs
ENGINEERS ARCHITECTS

www.timhaahs.com

12725 Morris Road Ext
Deerfield Point 100, Suite 150
Alpharetta, GA 30004
T: 770.850.3065
F: 770.850.3066

January 5, 2012

Mr. Tim Akers
City Planner
City of Oxford
107 Courthouse Square
Oxford, MS 38655

**RE: Downtown Parking Study – Phase II Draft Report
Oxford, Mississippi**

Dear Mr. Akers:

Timothy Haahs and Associates, Inc. (TimHaahs) has provided the Phase II Draft Report which includes the interim report, updated occupancy counts from the fall, as well as the remaining Phase II tasks.

Once you have reviewed the draft report, we would like to schedule a conference call to answer any questions you may have and gather your comments prior to finalizing this document as a Final Report. Thank you for allowing us to work with you on this important project as downtown Oxford works to improve the downtown parking system. Please do not hesitate to call with any questions.

Very truly yours,



Vicky Gagliano, MBA
Parking Specialist



Michael D. Martindill
Principal

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APPENDICIES

Appendix A: Public Workshop Notes
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Executive Summary

An executive summary will be incorporated into the final report after all comments and revisions have been made.

Introduction

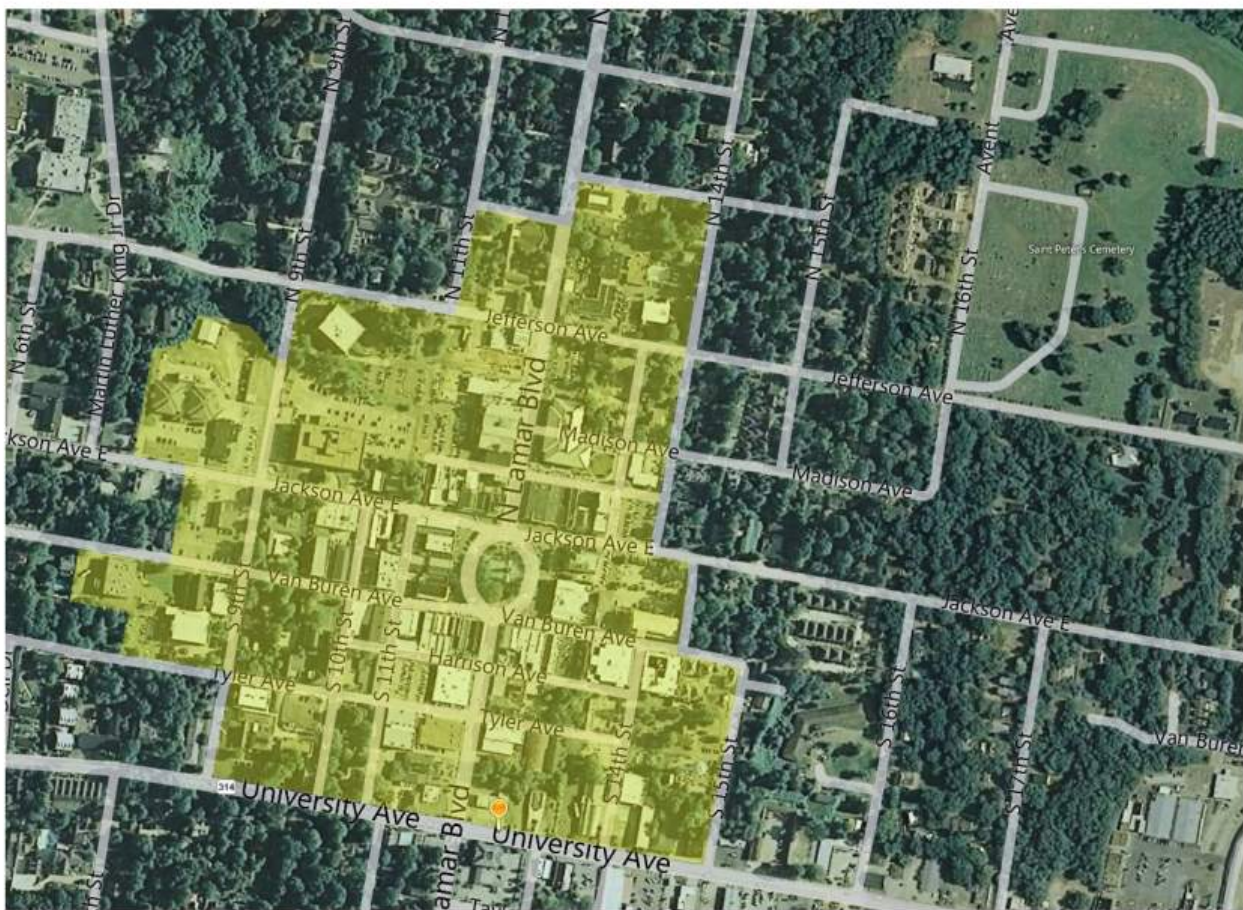
Timothy Haahs and Associates, Inc. (TimHaahs) has been retained by the City of Oxford (Oxford) to perform a downtown parking study. The study has been divided into three reports: an interim report, Phase I report, and finally this Phase II (Final) draft report. This draft report completes our Phase II analysis and is intended as a basis to discuss our recommendations prior to finalizing the parking study into a Final Report.

Study Area

The study area is comprised of 28 blocks in downtown Oxford. Boundaries for the study area are Adams Avenue to the north, 14th Street/15th Street to the east, University Avenue to the south, and Martin Luther King Drive to the east.

In order to simplify our tables and charts, we have assigned a numerical block identifier to each block. A map of the study area and block identifiers is shown below.

Figure 1: Aerial Map of the Study Area

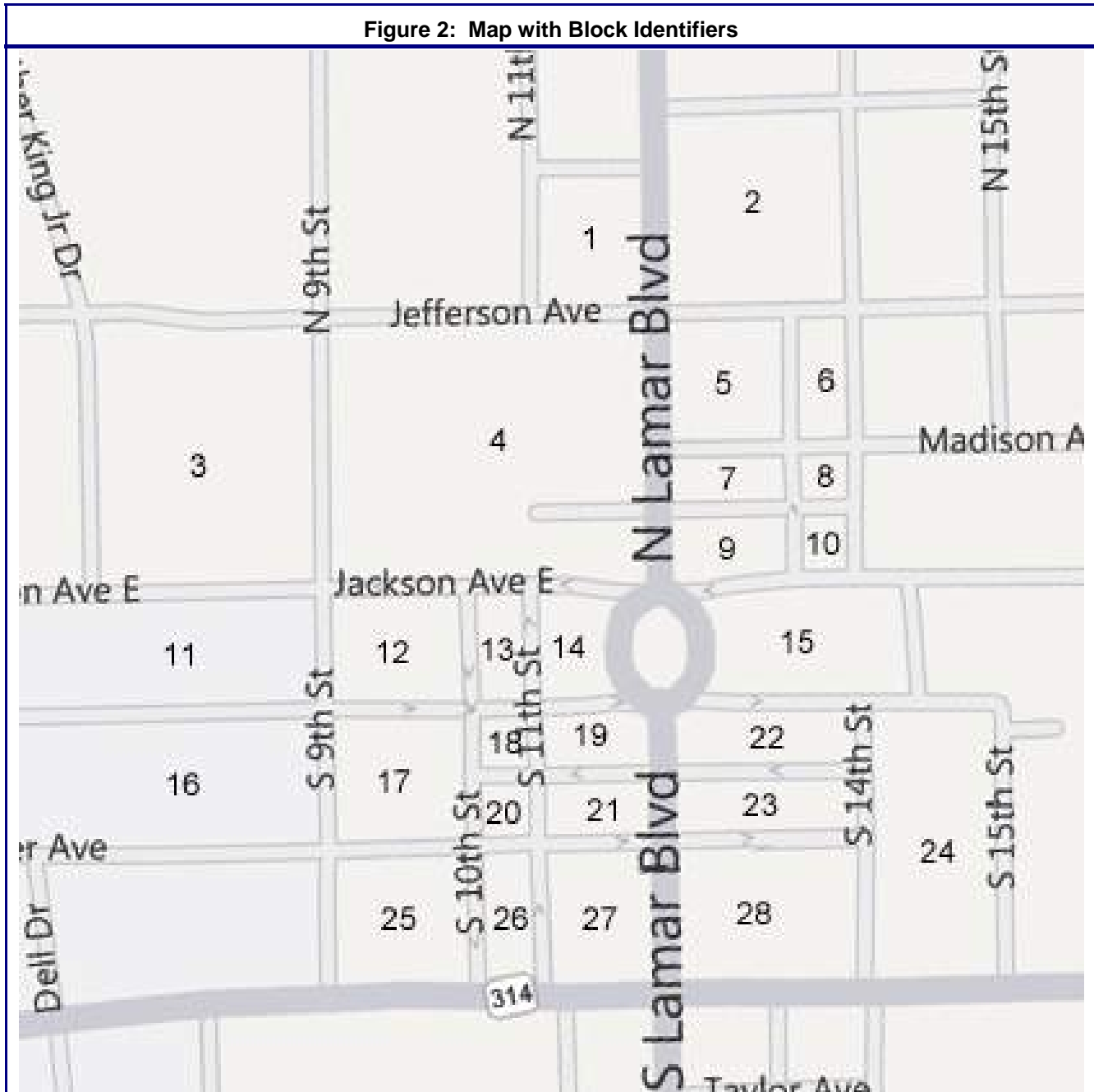


Source: Bing Maps and Timothy Haahs and Associates, Inc. 2011

Current Parking Conditions

Parking Inventory

TimHaahs performed a detailed inventory analysis to evaluate all on- and off-street parking assets within the study area. We have made note of several privately owned parking areas and have separated them from public spaces such as on-street and City owned parking lots. In order to simplify location, we have assigned a block number to each block area within the study area. The map below includes our block identifiers for use in this report.



Source: Bing Maps and Timothy Haahs and Associates, Inc. 2011

We have summarized the parking inventory into three categories: on-street, public off-street, and private/restricted use. There are approximately 530 publicly available on-street parking spaces and 658 publicly available off-street parking spaces within the study area. We have estimated the inventory in the private/restricted parking areas when access was not available.

Table 1: Parking Inventory

Block	Inventory			Total
	On-Street	Public Off-Street	Private/Restricted	
1	14	0	28	42
2	0	0	155	155
3	20	73	0	93
4	56	154	174	384
5	14	77	0	91
6	16	0	0	16
7	26	0	0	26
8	5	0	8	13
9	22	0	0	22
10	0	55	0	55
11	6	0	95	101
12	25	0	30	55
13	15	0	0	15
14	49	0	0	49
15	99	92	17	208
16	20	0	70	90
17	29	0	0	29
18	9	0	0	9
19	18	0	0	18
20	4	0	21	25
21	5	43	0	48
22	22	32	0	54
23	5	0	0	5
24	0	132	0	132
25	22	0	81	103
26	0	0	0	0
27	14	0	0	14
28	4	0	67	71
Square	11	0	4	15
Total	530	658	750	1,938

Source: Timothy Haahs and Associates, Inc. 2011

There are 1,938 parking spaces in the study area; however, only 1,188 of those spaces are publicly available (530 spaces on-street and 658 spaces in off-street surface lots). The remaining 750 spaces are privately owned, restricted access parking areas.

Parking Demand

Our team collected parking demand data on Thursday, September 22, 2011. We observed the parking conditions throughout the day and identified three peak hours of demand: 1. during the afternoon lunch peak, 2. the early evening dinner peak, and 3. the late night bar peak hours. The parking demand data is summarized in the table on the following page. For this portion of our analysis, we are focusing on the public on- and off-street parking areas only as most of the private parking areas are restricted use only.

Table 2: Peak Hour Parking Demands

Block	Afternoon Peak Demand			Early Evening Peak Demand			Late Evening Peak Demand		
	On-Street	Public Off-Street	Total	On-Street	Public Off-Street	Total	On-Street	Public Off-Street	Total
1	3	0	3	4	0	4	1	0	1
2	0	0	0	0	0	0	0	0	0
3	3	18	21	3	14	17	3	17	20
4	50	143	193	43	140	183	56	140	196
5	14	72	86	6	58	64	14	75	89
6	11	0	11	8	0	8	6	0	6
7	26	0	26	22	0	22	26	0	26
8	5	0	5	1	0	1	3	0	3
9	20	0	20	19	0	19	22	0	22
10	0	55	55	0	51	51	0	55	55
11	0	0	0	0	0	0	0	0	0
12	23	0	23	20	0	20	25	0	25
13	14	0	14	14	0	14	15	0	15
14	49	0	49	44	0	44	49	0	49
15	100	83	183	95	67	162	99	36	135
16	0	0	0	0	0	0	0	0	0
17	20	0	20	28	0	28	29	0	29
18	9	0	9	10	0	10	8	0	8
19	17	0	17	17	0	17	18	0	18
20	4	0	4	4	0	4	4	0	4
21	5	43	48	5	34	39	5	43	48
22	22	32	54	22	31	53	22	32	54
23	5	0	5	4	0	4	5	0	5
24	0	16	16	0	12	12	0	36	36
25	19	0	19	14	0	14	20	0	20
26	0	0	0	0	0	0	0	0	0
27	13	0	13	7	0	7	14	0	14
28	4	0	4	0	0	0	4	0	4
Square	11	0	11	9	0	9	11	0	11
Total	447	462	909	399	407	806	459	434	893

Source: Timothy Haahs and Associates, Inc. 2011

It should be noted that a large Southeastern Conference (SEC) football game was scheduled the weekend during our counts. We understand that a large amount of alumni and fans come to town a few days prior to these games. As such, the demand figures above represent a very busy day during the fall in downtown Oxford.

The Afternoon Peak hour occurred during the lunch hours between 12:30pm and 2:00pm. Many of the downtown employees were present as well as customers of the many restaurants and even some tourists shopping and visiting for the day. Due to this overlap, it was the busiest hour during the day.

The Early Evening peak hour occurred between 5:30pm and 7:00pm when some businesses were still open and customers were starting to come downtown for dinner. Again, we observed several tourists still walking around the Square, many families, and a large group arriving via the red Double Decker trolley to go to dinner. Finally, several vehicles were seen illegally parked to load/unload (i.e. bands or delivery) and others parking illegally to use the ATM machine which created even more traffic congestion and unsafe conditions for both pedestrians and motorists. On one occasion, an illegally parked vehicle blocked the view for oncoming traffic causing both vehicular and pedestrian safety issues.

The Late Evening peak hour occurred between 9:30pm and 11:00pm when the last few dinner patrons were departing and the late night bar and club patrons were arriving. We observed the Ole Miss shuttle dropping off several students at the Human Services parking area and a significant police presence in downtown. There was also an event at The Lyric which resulted in a majority of the vehicles observed parked in the surface parking area on Block 24.

It is important to note that the three peak hours are all somewhat similar with regard to traffic congestion during those times. However, the user groups present during each peak hour vary.

Parking Occupancy

The peak hour parking occupancy was calculated for each of the three peak scenarios listed below. We have highlighted all areas with a parking occupancy above 90 percent in red, above 70 percent in green, and above 50 percent in blue. As shown, 22 of the 29 blocks are at or above 50 percent occupancy during the peak afternoon hours. Furthermore, 19 of the 29 blocks are at or above 90 percent occupancy resulting in a significant parking shortage in those areas during those peak times.

Table 3: Parking Occupancy

Block	Afternoon Peak Occupancy			Early Evening Peak Occupancy			Late Evening Peak Occupancy		
	On-Street	Public Off-Street	Total	On-Street	Public Off-Street	Total	On-Street	Public Off-Street	Total
1	21%	-	21%	29%	-	29%	7%	-	7%
2	-	-	-	-	-	-	-	-	-
3	15%	25%	23%	15%	19%	18%	15%	23%	22%
4	89%	93%	92%	77%	91%	87%	100%	91%	93%
5	100%	94%	95%	43%	75%	70%	100%	97%	98%
6	69%	-	69%	50%	-	50%	38%	-	38%
7	100%	-	100%	85%	-	85%	100%	-	100%
8	100%	-	100%	20%	-	20%	60%	-	60%
9	91%	-	91%	86%	-	86%	100%	-	100%
10	-	100%	100%	-	93%	93%	-	100%	100%
11	0%	-	0%	0%	-	0%	0%	-	0%
12	92%	-	92%	80%	-	80%	100%	-	100%
13	93%	-	93%	93%	-	93%	100%	-	100%
14	100%	-	100%	90%	-	90%	100%	-	100%
15	101%	90%	96%	96%	73%	85%	100%	39%	71%
16	0%	-	0%	0%	-	0%	0%	-	0%
17	69%	-	69%	97%	-	97%	100%	-	100%
18	100%	-	100%	100%	-	111%	89%	-	89%
19	94%	-	94%	94%	-	94%	100%	-	100%
20	100%	-	100%	100%	-	100%	100%	-	100%
21	100%	100%	100%	100%	79%	81%	100%	100%	100%
22	100%	100%	100%	100%	97%	98%	100%	100%	100%
23	100%	-	100%	80%	-	80%	100%	-	100%
24	-	12%	12%	-	9%	9%	-	27%	27%
25	86%	-	86%	64%	-	64%	91%	-	91%
26	-	-	-	-	-	-	-	-	-
27	93%	-	93%	50%	-	50%	100%	-	100%
28	100%	-	100%	0%	-	0%	100%	-	100%
Square	100%	-	100%	82%	-	82%	100%	-	100%
Total	84%	70%	77%	75%	62%	68%	87%	66%	75%

Source: Timothy Haahs and Associates, Inc. 2011

The peak hour parking occupancy occurs during the afternoon hour with 84 percent of the on-street parking supply occupied and 70 percent of the public off-street supply occupied for a total downtown parking occupancy of 77 percent. It should also be noted that the on-street occupancy was observed at 87 percent occupied during the late evening occupancy count. While many of the “core area” blocks were heavily utilized, parking areas on the edge of the study area were consistently open and available throughout the day. We believe this is due to the natural topography of the area and distance from the Square.

Effective Parking Supply

When calculating the parking adequacy, a cushion is applied to the parking supply in order to compensate for misparked vehicles, spaces lost due to maintenance or snow removal, and the flow of vehicles in and out of parking spaces. Industry standards typically apply a cushion between 85 and 95 percent. For the purpose of this study, a 90 percent cushion has been applied to all on-street parking facilities as they are distributed throughout the study area and the last few vacant spaces are more difficult to locate. We applied a 95 percent cushion to all off-street parking facilities as an empty space in a surface lot is easier to find. The resulting total effective supply is 1,102 spaces (an 86-space reduction).

Table 4: Effective Supply Factor

Block	Public Parking Inventory			Effective Supply				
	On-Street	Public Off-Street	Total	On-Street Factor	Off-Street Factor	On-Street	Off-Street	Total
1	14	0	14	90%	95%	13	0	13
2	0	0	0	90%	95%	0	0	0
3	20	73	93	90%	95%	18	69	87
4	56	154	210	90%	95%	50	146	197
5	14	77	91	90%	95%	13	73	86
6	16	0	16	90%	95%	14	0	14
7	26	0	26	90%	95%	23	0	23
8	5	0	5	90%	95%	5	0	5
9	22	0	22	90%	95%	20	0	20
10	0	55	55	90%	95%	0	52	52
11	6	0	6	90%	95%	5	0	5
12	25	0	25	90%	95%	23	0	23
13	15	0	15	90%	95%	14	0	14
14	49	0	49	90%	95%	44	0	44
15	99	92	191	90%	95%	89	87	177
16	20	0	20	90%	95%	18	0	18
17	29	0	29	90%	95%	26	0	26
18	9	0	9	90%	95%	8	0	8
19	18	0	18	90%	95%	16	0	16
20	4	0	4	90%	95%	4	0	4
21	5	43	48	90%	95%	5	41	45
22	22	32	54	90%	95%	20	30	50
23	5	0	5	90%	95%	5	0	5
24	0	132	132	90%	95%	0	125	125
25	22	0	22	90%	95%	20	0	20
26	0	0	0	90%	95%	0	0	0
27	14	0	14	90%	95%	13	0	13
28	4	0	4	90%	95%	4	0	4
Square	11	0	11	90%	95%	10	0	10
Total	530	658	1,188			477	625	1,102

Source: Timothy Haahs and Associates, Inc. 2011

Parking Adequacy

After applying the effective supply factor reduction there is a surplus of approximately 193 spaces consisting of 30 on-street spaces and 163 off-street spaces. The distribution of available spaces is unbalanced as there is a large 132-space surface lot adjacent to the water tower on the outer edge of the study area. Furthermore, the on-street parking supply is heavily utilized which gives motorists the impression that there are not sufficient parking spaces. The table on the following page outlines the detailed current parking adequacy. Please note figures in red parenthesis represent a parking shortage where demand exceeds the supply of spaces.

Table 5: Parking Adequacy

Block	Afternoon Peak Adequacy			Early Evening Peak Adequacy			Late Evening Peak Adequacy		
	On-Street	Public Off-Street	Total	On-Street	Public Off-Street	Total	On-Street	Public Off-Street	Total
1	10	0	10	9	0	9	12	0	12
2	0	0	0	0	0	0	0	0	0
3	15	51	66	15	55	70	15	52	67
4	0	3	4	7	6	14	(6)	6	1
5	(1)	1	(0)	7	15	22	(1)	(2)	(3)
6	3	0	3	6	0	6	8	0	8
7	(3)	0	(3)	1	0	1	(3)	0	(3)
8	(1)	0	(1)	4	0	4	2	0	2
9	(0)	0	(0)	1	0	1	(2)	0	(2)
10	0	(3)	(3)	0	1	1	0	(3)	(3)
11	5	0	5	5	0	5	5	0	5
12	(1)	0	(1)	3	0	3	(3)	0	(3)
13	(1)	0	(1)	(1)	0	(1)	(2)	0	(2)
14	(5)	0	(5)	0	0	0	(5)	0	(5)
15	(11)	4	(7)	(6)	20	15	(10)	51	42
16	18	0	18	18	0	18	18	0	18
17	6	0	6	(2)	0	(2)	(3)	0	(3)
18	(1)	0	(1)	(2)	0	(2)	0	0	0
19	(1)	0	(1)	(1)	0	(1)	(2)	0	(2)
20	(0)	0	(0)	(0)	0	(0)	(0)	0	(0)
21	(1)	(2)	(3)	(1)	7	6	(1)	(2)	(3)
22	(2)	(2)	(4)	(2)	(1)	(3)	(2)	(2)	(4)
23	(1)	0	(1)	1	0	1	(1)	0	(1)
24	0	109	109	0	113	113	0	89	89
25	1	0	1	6	0	6	(0)	0	(0)
26	0	0	0	0	0	0	0	0	0
27	(0)	0	(0)	6	0	6	(1)	0	(1)
28	(0)	0	(0)	4	0	4	(0)	0	(0)
Square	(1)	0	(1)	1	0	1	(1)	0	(1)
Total	30	163	193	78	218	296	18	191	209

Source: Timothy Haahs and Associates, Inc. 2011

Future Parking Conditions

We are not aware of any proposed changes to the parking supply or new developments within the study area. Therefore, there are two primary factors which will impact the future parking demand in downtown Oxford: City of Oxford population growth and University of Mississippi student enrollment growth. A brief description of each is included below.

Oxford Population Growth

Table 6: City of Oxford Population

City of Oxford	2000	2010
Population	11,756	18,916
% Change		60.9%
Annualized % Change		6.1%

Source: U.S. Census Bureau

The 10-year growth historical growth rate was 60.9 percent however we understand that five square miles of the city was annexed in 2008. For this analysis we have used the annualized population growth rate at 6.1 percent understanding that it may exceed that figure.

University of Mississippi Enrollment Growth

Historical undergraduate enrollment data was obtained from the University's website as follows:

Ole Miss (Oxford Only)	Fall Semester				
	2007	2008	2009	2010	2011
Student Enrollment	13,910	13,685	14,346	15,505	16,586
% Change		-1.6%	4.8%	8.1%	7.0%

Source: www.olemiss.edu

As shown above, the recent enrollment growth has exceeded seven percent annually. For the purpose of this analysis, we have assumed an average of the past four years or an annual growth rate of 4.5 percent.

Future Parking Summary

Utilizing a blended future growth rate of 5.3 percent, we have calculated the estimated future parking demand and adequacy within the study area. We estimate a future parking shortage of approximately 75 spaces in 2016 and 421 spaces in 2021 if the growth rate assumptions are realized. Even if a minimal growth rate factor of just two percent is applied, we still anticipate a parking shortage by 2021 and very congested parking conditions for several years prior to that. The table below outlines the increase in demand and the estimated parking adequacy over the next ten years both for the 5.3 percent annual growth rate and two percent minimal growth rate.

Annual Demand Growth	5.30%	Minimal Growth	2.00%
Actual Parking Supply	1,188		
Effective Supply Reduction	86		
Effective Parking Supply	1,102		

Year	Demand	Surplus/Shortage	Demand	Surplus/Shortage
2011	909	193	909	193
2012	957	145	927	175
2013	1,008	94	946	156
2014	1,061	41	965	137
2015	1,118	(15)	984	118
2016	1,177	(75)	1,004	98
2017	1,239	(137)	1,024	78
2018	1,305	(203)	1,044	58
2019	1,374	(272)	1,065	37
2020	1,447	(345)	1,086	16
2021	1,524	(421)	1,108	(6)

Source: Timothy Haahs and Associates, Inc., 2011

Should the assumptions set forth in this analysis differ from actual conditions, the parking shortage may vary. For example, if one of the public parking areas is sold and developed, the parking supply would be reduced and the parking demand would be increased due to the new development. Finally, it is important to remember that the current parking supply listed in the previous table includes all on and off street parking areas. The surface parking area located on Block 24 on the edge of the study area is not convenient for downtown retail or restaurant patrons and employees would also not voluntarily park in that location.

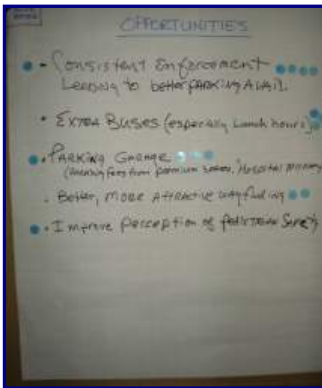
Public Workshop

A public workshop was held on Thursday, June 9th, 2011, at 5 PM in the City Hall Courtroom in order to allow the general public to voice their concerns regarding the parking system in downtown Oxford. The workshop focused on identifying the existing strengths, weaknesses, and opportunities for improvement. The one-hour workshop consisted of two TimHaahs representatives and 28 members of the public, including some City representatives. To allow for discussion, the workshop was divided into four breakout groups with a group leader recording the responses. Below is a summary of the most common remarks received during the workshop.



Strengths of the existing parking system:

- Proximity is good, front door availability
- Free parking bring business downtown
- There is plenty of parking
- Lighting is good in premium parking areas
- There is a feeling of safety
- Plenty of off-Square parking
- Enforcement is good



Weaknesses of the existing parking system:

- Merchants park in customer spaces
- Difficult to find an available parking space
- Not enough premium spaces
- Lighting off the Square is poor
- Signage and Wayfinding is poor
- Inconsistent enforcement
- Safety is questionable in some areas
- Parking spaces are too small
- Traffic congestion is bad around the Square
- Downtown residential parking
- No employee parking allowed on the Square

Opportunities for improvement of the parking system:

- Better enforcement
- Paid Parking, Paid Premium Parking
- Improve transit
- Improve parking regulations for residential
- Improve wayfinding and signage
- Improve perception of pedestrian safety
- Improve lighting in all parking areas
- Consider an employee parking shuttle
- Consider building a parking garage



Parking Advisory Task Force

In order to facilitate changes to the parking system, we identified the need for a parking advisory task force or parking commission. The purpose of the task force is to assist the City Manager and City Council on decisions regarding the Oxford parking system. Specifically, the task force should meet regularly throughout the implementation period. Not only should the task force lead the direction of the parking system, but they should serve as the public voice to ensure changes will benefit the long-term goals of the citizens and residents of Oxford. We understand that the Board of Aldermen have officially approved the ordinance to establish this new commission and appointed its members.

Membership

We envision a nine (9) to thirteen (13) member committee with an odd number of voting committee members to prevent deadlock during voting. We have identified several user groups that could be targeted when selecting the members including:

1. A representative from the City of Oxford.
2. A representative from Lafayette County.
3. A representative to address concerns for all downtown places of worship (churches).
4. A representative to address the Federal uses and how they can work in tandem with other downtown activities.
5. A representative for the downtown Merchants.
6. A Downtown Resident who lives within the study areas.
7. A representative from the Courthouse.
8. A representative from the University of Mississippi.
9. A representative who is part of the Community and/or a Resident of Oxford.

It may also be necessary to assign a non-voting member as the task force administrator to assist with coordination and administrative tasks. From what we understand, the City has successfully appointed a good cross-section of stakeholders for the new parking commission.

Responsibilities

We recommend that the Advisory Task Force's first responsibility is to establish guiding principles. We feel that this should be done immediately and prior to making any changes to the parking system. The task force may create multiple sets guiding principles for specific objectives (i.e. Paid parking conversion, Wayfinding/Signage, Public Relations, etc.) The guiding principles should be simple, easy to understand, and will set forth the objectives for all decisions and changes to the parking system. Below are four guiding principles that we have prepared for consideration:

1. Create and maintain a user-friendly, easy to access, and easy to understand parking system in downtown Oxford.
2. Regularly involve stakeholders in the decisions regarding the parking policies.
3. Make downtown more convenient and accessible for the customers and visitors.
4. Manage the on-street parking using the 85 percent parking occupancy rule.

An example of the City of Tacoma's guiding principles is included in Appendix B.

Once guiding principles are established, the Task Force should begin evaluating and implementing several new initiatives for improving the downtown parking system.

Parking Entity Organizational Options

A considerable number of parking assets exist in the downtown study area. However, no single person or group is the “go-to-person” with regard to pricing, meter collections (if installed), permits, enforcement, citations, capital improvements, policies, and public relations. From a management standpoint, this is not the most efficient system to manage parking. We strongly believe it is imperative for the City to take the proper steps towards developing a centralized parking operation in which all the assets are controlled and managed under one roof. This is one of the most logical and necessary steps to take for the City to improve its public parking assets.

A number of different parking management methods could be employed in Oxford. We have examined the various options to assist the City with the decision making process that would best serve the City of Oxford.

We feel that bringing all of the assets under one roof with a singular focus on delivering parking, provides a clear mission statement and creates financial unity among assets while providing strong leadership for implementing future parking initiatives (construction and renovation).

Third-Party Parking Operator

A third-party operator would be retained by the city to handle a set of tasks specific to the downtown parking system. A third party operator could manage all meter collections, permit fees, citations, citation collections, and assist with updating local zoning codes. One major advantage of retaining a third-party operator is the elimination of training costs and capital expenses to completely form the back office infrastructure of a parking department. Furthermore, a parking operator can bring expertise, experience, and industry specific processes to Oxford that the local labor does not possess.

On the other hand, a third party operator can also be more costly pending the existing resources of a municipality and the ability to transfer existing back office infrastructure into a centralized entity. In addition, the municipality loses some control with reduced daily interaction within the parking system. Similarly, it is still necessary to have a designated parking “Champion” to oversee the operator and ensure that the procedures meet the needs of the City.

Parking Department

A parking department or agency is a municipal entity under the umbrella of city government. It is formed as either a separate department or as a division of an existing department such as Public Works, Transportation, or General Services.

One advantage of a parking department is the minimal administrative changes needed to consolidate activities from multiple entities into an existing department. Additionally, few changes are needed from a personnel standpoint as the majority of employees retain their job functions, titles, and benefits. Also, the revenue streams can continue to flow to either the General Fund or other designated City fund.

One key disadvantage with a parking department is the proper allocation of adequate funding for the parking needs. Since parking departments generally direct all revenues to the general fund, these funds are frequently allocated to other projects with which parking would be competing. Frequently parking does not receive the proper attention or funds under this option to either build new facilities or to restore existing assets.

Parking Authority

A parking authority is generally created with a singular focus on parking. However, in most municipalities, the formation of a parking authority requires state and sometimes city-based legislation. However, once this process has been completed, an authority would yield the type of significant control over parking assets with the following key advantages and characteristics:

- A Board of Directors governs the authority with a recommended five members serving to provide guidance to the staff, maintain fiscal responsibility, and set policy (including rates).
- Self-appointed members normally come from within the business community and those with vested interest in the vitality of the city. Unfortunately the appointment process may become political and without regard for the individuals with the most experience and knowledge.
- An Executive Director is appointed ideally with extensive parking or related management experience. This individual would report to the board.
- May either keep all of the revenue generated or may give a set amount back to the general fund (as done by the Miami Parking Authority, where after operating expenses and capital work expenses the remainder goes to the City of Miami's general fund).
- City council approves budget after the Parking Authority board has approved it.
- The required time to create an authority depends entirely on the legislative process. It can be quite long and require extensive lobbying efforts.
- After the authority is established, it can work independently from the political process and therefore make swift changes if and when needed (i.e. to purchase equipment, make staffing changes, change pricing strategies, etc.).
- An authority has the power to issue bonds to finance projects. However, a City may be required to guarantee the bond and may also have better bond rates.
- Hiring is much quicker for an authority than for a municipal body and salary scales can normally be set differently from municipal government scales.
- Can work with City officials to meet long-term goals such as redevelopment, increased development, connectivity with transportation initiatives, and to encourage pedestrian activity.

Establishing a Parking Authority in Oxford would provide an opportunity to combine the parking under one house where revenues, expenses, and parking assets can be actively managed.

Enterprise Fund, Utility, or Commission

An enterprise fund possesses nearly all of the same characteristics of a parking authority. However, since it is not independent from the city it may become slightly more bureaucratic and possess the following key characteristics:

- Reports directly to mayor.
- May have bonding power depending on how it is originally formed.
- Can keep all the revenues in house, contribute excesses to the general fund, or may loan money to the general fund in an interest bearing loan agreement.
- More saddled with political red tape than an authority.

Two of the largest differences that separate an enterprise fund from a parking authority are the inability to approve its own budget and setting/changing parking rates. To accomplish these tasks requires approval from the city council.

Parking Management

Parking Enforcement

With increased growth in the number of visitors, patrons, and businesses in downtown Oxford, parking availability and enforcement is a concern. One of the most difficult aspects of parking operations is enforcement. It was reported that the hours of enforcement are routine and widely known by merchants and regular users. As such, it is important to adjust the parking enforcement routes and hours in order to minimize abuse and lost citation revenue. In addition, we recommend increasing the hours of enforcement to encourage turnover during the peak dinner hours when premium parking is in high demand.

License Plate Recognition (LPR)

License Plate Recognition (LPR) technology uses digital cameras and lasers to perform vehicle recognition (size, shape and color) and combined with accurate GPS, automatically detects and notifies the Parking Enforcement Officer (PEO) of unmoved vehicles. Pictorial evidence is present to the PEO for violation assessment. LPR can also be used for Scofflaw searches. Despite its sophisticated technology, LPR systems appear reliable in every day operation and in all temperatures and weather.

Parking enforcement productivity can increase significantly with LPR enforcement systems thereby allowing PEO's time for enforcing other high priority activities. It also allows enforcement regardless of weather conditions. Productivity gains can be significant, especially with the enforcement of time limitations as manual tire chalking is done automatically. Since chalking activities take a smaller proportion of the day, the PEO has more time to perform other activities such as enforcing handicap, taxi, and loading zones to minimize traffic hazards. Some additional advantages of LPR systems are:

- System is capable of tracking vehicles with outstanding tickets, fines, warrants.
- Allows enforcement officers to monitor time limits and prohibit moving into an adjacent space.
- Allows a smaller enforcement staff.

The cost of an LPR system is low enough to provide a reasonable return on investment for most municipalities.

Meter Technology

Single space meters are the most common amongst municipalities and offer convenience and fast payment. Single-space meters are typically the least expensive alternative to collect parking fees. However, most single-space meters only accept coin payment and the more advanced meters that accept credit card, also have additional costs and fees associated with their use.

If a paid parking system is introduced, we recommend the use of single-space meters in the mid-tier parking areas (those immediately adjacent to the premium parking areas).

The City of Oxford should consider the installation of multi-space meters that accept coin and credit cards at the premium parking areas, specifically on-street parking within the Square and the surface lots immediately adjacent to the Square. Multi-space parking meters can allow the use of credit cards eliminating the need to carry coins and significantly increasing convenience. Compared to single-space meters, even with credit card processing fees, multi-space meters decrease the amount of cash handled daily during meter collection and make enforcement of expired meters VERY easy to monitor at one centralized location. Multi-space meters are most appropriate in surface parking lots with limited points of exit/entry, and mid-block for on-street applications.

The City of Tacoma utilizes the Parkeon Pay Station but it is important for Oxford to select a parking equipment vendor to meet the specific needs for downtown Oxford users. Since a very simple user interface is desired, we recommend the customization of the front meter panel to simplify the instructions for the end user. In preparation of the request for proposal (RFP) for parking equipment, requirements can be listed for each vendor to submit a proposed graphic that can be affixed to their equipment. This will allow the City to visually understand what the equipment will look like when installed.

Other RFP requirements such as PCI compliance, flexible rate structures, back office software, etc., should also be stated initially to ensure the equipment will meet the needs for downtown and function reliably. TimHaahs regularly prepares these types of RFP's and would be interested in providing this service as well as advising on the vendor selection.

We have included product information sheets for four multi-space pay stations and two single-space meters in Appendix D of this report. As mentioned previously, the City of Tacoma is equipped with the Parkeon meter but each of the four vendors offer a similar product. Please note that all of the pay stations can operate as pay by space or pay and display.

Appendix D Information Sheets:

- Parkeon Strada Pay Station
- Digital Luke II Pay Station
- Cale MP4 Compact Pay Station
- Mackay Guardian Multi-Elite Pay Station
- Mackay Guardian X Model Single Space Meter with MKH Housing
- POM APM-E Single Space Meter



Promoting the Parking System

A common problem of downtown parking systems is that there is little effort expended to communicate and promote the mission, assets and functions of the parking system. In an effort to support and promote Downtown Oxford economic development, the City should undertake a program to consistently inform its residents, downtown merchants, employees, shoppers, student population, and the general public regarding the way the parking system operates. In addition, the program should also address the need for consistent enforcement, the value of on- and off-street parking and the plans for additional parking. The objective in promoting a downtown parking system is to transform what can often be perceived as negative image into a positive one.

Parking Program Information Campaign

The informational campaign should be directed to downtown property owners, merchants, employees, shoppers, and students and may include the following components:

1. The City's mission regarding promoting economic development, the free flow of traffic, and promoting Oxford as a great place to live, work, dine and shop.
2. Information of Downtown Oxford's vibrancy as a shopping and dining destination with convenient access to the University of Mississippi.
3. A map of the downtown with the designated off- and on-street parking locations and other points of interest.
4. A description of the City as a designated historic area dedicated to the principles of smart growth including downtown walkability and connectivity.
5. Information regarding off- street parking and the facilities that the City owns that provide convenient parking for patrons and employees of the downtown business district.
6. The dedicated property management services and affordability of these off-street facilities to promote economic development and commitment to operate in a fiscally responsible manner.
7. The purpose and operation of on-street parking and meters (if installed) designed to regulate and promote turnover, thereby making the most convenient parking spaces available to as many downtown patrons as possible.
8. The role and hours of parking enforcement is to help keep City streets safe, keep traffic moving, turnover convenient on-street spaces, and make loading zones available for commercial purposes.
9. The rationale for the issuance of parking tickets and the procedures and information to pay or contest them.
10. Parking safety tips and important / emergency phone numbers or points of contacts.

This information is best communicated through various mediums including a parking guide that can be handed out at the City Hall and Visitor's Center, an interactive, user-friendly web page, public service announcements and bulletins, and City mailings to residents and businesses. Appendix C at the end of this report includes a few examples of web pages.

Public Relations Activities

In addition to providing valuable parking information to residents, customers, students, and visitors, the City should consider various public relations activities to reflect their important role in the community as an advocate for the economic development and quality of life in downtown Oxford. Examples of these activities include:

1. The issuance of warnings vs. summonses for on-street overtime parking during the holiday season.
2. Periodic warnings vs. summonses to merchants who violate on-street time limitations and park in the best patron parking spots. Warnings would communicate that the success of their business depends on their customers finding convenient parking.
3. Regular meetings between the Parking Advisory Task Force and the merchants / property owners to improve communications regarding parking challenges, changing conditions, and new and developing issues.
4. Parking Advisory Task Force participation on various City of Oxford traffic, business and economic development, public safety, and planning committees.

Payment In Lieu of Parking

For years, municipalities, small and large, have used payment in lieu of parking (PILOP) initiatives as a way of allowing new development to be built without the need to create new parking supply. This concept has proved beneficial to both public and private interests and can be a valuable tool for driving new development or as a way to help revitalize and reinvigorate older areas.

PILOP is when a developer or other entity pays into a parking or municipal fund in lieu of creating new parking for their land use. Most cities have set parking requirements for various land uses and in some cases developers would prefer to pay into a fund rather than creating new parking. The amount of fee is generally calculated based on the per space cost of constructing either on-street or structured parking. Depending on the location and type of parking, this in lieu of fee can range from as little as \$500 in smaller towns with surface parking and inexpensive land costs to over \$20,000 in more dense, urban areas where structured parking is the norm and the land costs are more expensive.

The benefits of a PILOP program include a reduction in over building, encouraging shared parking, saving valuable land for other uses, and creating a fund from which to build parking in the future.

Many by-laws exist around the country with different ways to help finance the in-lieu costs developers must pay. It typically depends on the fiscal needs, liquidity, and desires of each municipality. Some variations on methods to collect payment include:

- Lump sum payment
- Annual payment increments
- Combination of both
- The price may be paid in installments over a self-amortizing period of say of 10 or 15 years or with a balloon payment after a certain time period from date of execution of PILOP payment agreement
- Require purchasing a set number of permits to provide reliable cash flow

Funds contributed to a PILOP fund can be used to acquire simple fee or other interest in land, and other real property for parking purposes; Construct, maintain, operate, lease, manage, or otherwise provide off-street parking facilities for public use; Provide public information to enhance parking utilization including publicity campaigns, graphics, signage, and other informational devices; Coordinate plans for parking facility improvements and expansion with public transportation plans and operations in the vicinity, particularly the joint facilities that might be operated in connection with bus, shuttle, and any feeder services.

Due to the limited amount of land surrounding the Square, the cost of land, and the cost to provide structured parking, we recommend that the PILOP fee should be near the higher end of the range listed above. The City may desire new projects and development and, in turn, may wish to entice developers by granting parking variances. While this practice may be okay for a few small initial developments, it can prove to worsen the parking situation as the burden to provide parking is transferred to the City.

We recommend that the City involve the Parking Advisory Task Force in all variance requests and implement a mutually agreeable plan for allowing growth, while balancing the financial obligations of providing parking.

Wayfinding and Signage

Wayfinding is the ability to understand where you are, find where you want to go, and then recollect the path of travel when departing. It is generally not necessary to place a high priority on wayfinding in areas where a majority of the users are employees or other regular users. However, in downtown Oxford it is difficult for visitors and customers to find parking when all of the on-street spaces are filled.

Signage is a means of communication with the driver and/or pedestrian, especially one using a facility for the first time. To be effective, the signage for a parking system must be clear, concise, and simple. While the creative designer may desire an aesthetic statement, plain is far better than fancy, particularly for traffic direction.

We recommend increasing/enhancing the signage and simplifying the layout for the visitor/customer parking as it would make for a more friendly downtown environment. All visitor/customer spaces should be easy to identify to a first time visitor without confusion about who may or may not park in a space.

The signage system should include:

- Trailblazer signs – Located on streets leading to the downtown, these signs show where parking can be found.
- Site Signs – Located at the parking lot, these signs describe the type of parking available.
- Parking rate signs – These signs give hourly, daily, and monthly rates.
- Parking regulatory signs – Not part of the parking promotion sign system, these signs are related to the enforcement of the City's parking ordinance.

We recommend the use of banners that can be easily installed on existing light or utility poles. These offer a low cost, aesthetic way to identify public parking areas. Some general rules for sign design and location are as follows:

- All signage should have a general organizing principle that is consistently evident in the system.
- Directional signage for both pedestrians and vehicles must be continuous (i.e. repeated at each point of choice) until the destination is reached.
- Signs should be placed in consistent and, therefore, predictable locations.
- A sign should be placed at every point where a driver or pedestrian must make a decision.

An important aspect of signage is the graphics. Effective signage programs combine aesthetics with information. Choice of color, typeface, character size, weight and spacing, and the use of uppercase and lowercase text all influence readability. The arrangement of text and symbols must be visually distinct. They must not contradict their basic meaning or intent, so as not to confuse the user. The background is equally important: backgrounds that are too small or too large for the type size can greatly detract from the effectiveness of the sign. A well designed and implemented wayfinding and signage system will not only make finding and using the City's parking more convenient, it can also enhance the image of downtown Oxford. A downtown logo can be included on a standard parking and wayfinding sign to create a greater visual impact or image.

Some samples of wayfinding and signage are included on the following page.

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Lighting and Safety

During our evening site visit and observation, it was noted that some of the off-street parking areas are dimly lit and somewhat uncomfortable. While lighting does exist, it is neither bright nor uniform and provides numerous dark areas which could be used as hiding places.

The two primary issues of lighting are intensity, or footcandles, and uniformity. In the past, minimum light levels were used in every facility without much question; yet today many owners are asking for higher lighting levels than “minimum.” These owners include not only those with a higher emphasis on user-friendliness, but also those who are concerned about security problems and would like to provide a sense of safety and comfort to all users. The level-of-service (LOS) approach is a useful concept for selection of lighting levels. Recommended gradation of the basic lighting levels, average maintained horizontal illumination at the pavement, and uniformity ratios are presented in the following table.

Table 9: Level of Service Approach to Lighting Levels				
Horizontal Illuminance at pavement	Maintained Illumination Levels (footcandles)			
	D	C	B	A
Covered parking areas	5	6 to 7	8 to 9	10
Roof and surface parking areas	1	2	2.5	3
Uniformity ratio (average:minimum)	4:1	4:1	3:1	3:1
Uniformity ratio (maximum:minimum)	10:1	10:1	8:1	8:1

We recommend a minimum LOS B and a targeted LOS A for all downtown parking areas. Formal measurements of lighting can be conducted by TimHaahs staff if needed.

Linkages and Pedestrian Safety

A linkage is, by definition, an associative relation or the act of linking things together. Parking linkages are the roadways leading up and into a parking facility, as well as the walkways within and from a parking facility to a particular destination.

All parking facility owners should understand the importance of quality linkages between their users, the parking facilities, and the destinations the facilities serve. The experience between when you approach a parking facility, exit your vehicle and arrive at your final destination plays a critical part in whether or not the trip was pleasant and simple or stressful and difficult. It can also mean your customers tell others about their great experience, or vow to never return again.

There are three primary concepts that make up quality linkages for all parking systems.

Concept 1: Clear and Direct Signage

The first and most important component of linkages in a parking system is signage and wayfinding. Motorists and pedestrians must be instructed by means of clearly written signage to inform them as to where they should go. The signage should be placed at every single location where a driver or pedestrian must make a decision; even if to simply indicate that the motorist/pedestrian should continue forward.

Concept 2: A Seamless Process

Visitors should feel as if once they enter downtown, the process to locate a vacant parking space, transition to a pedestrian, and identify signage that informs them of where to go is simple. Having the same sign design elements for all parking areas and pedestrian areas helps to create a seamless experience.

Concept 3: Effective Design Elements

In addition to signage and wayfinding, we have identified many planning and design elements which, when properly integrated, will significantly improve the user experience:

Streetscapes (to the parking facility): All roadways should be well lit, maintained (no pot holes), and naturally encourage the flow of vehicles into the parking facility. When possible, all community streetscape improvements should include provisions for the “back of house” area where vehicles are first introduced to their destination.

Ease of ingress and egress to the parking facility: Motorists should be able to immediately identify the entry and exit to the facility upon their first visit to the area. A poorly designed entry/exit will not only cause a motorist undue stress, but will also start and end their visit on a negative opinion.

Cleanliness: All aspects of the linkages should be clean and well maintained. Trash receptacles should be abundant in order to discourage litter within the parking facility and along the pedestrian linkage. All roadways and walkways should be free of trash and debris. Painted surfaces should be maintained and free of graffiti, gum, or vehicle damage.

Lighting: Lighting levels should be designed to easily locate entry/exits during the evening hours, to eliminate dark areas in and surrounding the garage, as well as the pedestrian linkages, and to ensure that the lighting levels are uniform in all areas. In most cases, a dimly lit roadway, parking facility or walkway will cause users to feel unsafe. In addition, poorly lit areas can increase the occurrence of crimes, and should be a high priority for any parking facility owner.

Safety: Passive security measures should be integrated into all components from the roadway, through the parking facility, via the pedestrian walkway, to the final destination. Properly designed parking facilities do not have or have very minimal hiding places and areas where a motorist may be isolated. Glass elevators, stairwells, and open-air design are excellent passive security measures. Likewise, landscaping considerations should be included as plant selection can assist with creating an open area.

Landscaping: When possible, the inclusion of living design elements should be used. Trees, shrubs, vines, and flowers not only provide green space, but also improve how pedestrians feel when walking down a walkway. Most community redevelopment initiatives begin with streetscape improvements, largely consisting of green space and walkway landscaping.

Hardscaping: Simple design elements such as a level walking surface, seating areas (which are especially important for those who may not be able to walk long distances), water features (such as a fountain), and façade elements help create the “experience” before the pedestrian actually arrives at their destination. Some shopping areas have used faux store front windows to advertise their merchants and display products. Despite being small in nature, this gives the pedestrian the feeling of window shopping rather than walking to the shopping center.

Walkways: Depending on the location and the season, covered or sheltered walkways can provide relief from the snow, rain, or sunshine. When connecting a parking structure with another enclosed area, a covered walkway is sometimes expected and helps to create a seamless experience. Likewise, in some applications, a climate controlled walkway may be desired, such as in extreme hot or cold climates.

Activity: In general, the more activity that exists in an area or linkage, the more attractive it will be for all of the users, and the better its perception.

Recommendations

As there is a projected future parking shortage in the study area there are opportunities to add new parking spaces and better distribute the demand. The following list below describes each of our initial recommendations. (Note, the recommendations will be edited/updated after we receive comments from the Phase I draft report)

1. Consider increasing the parking supply in the near future by acquiring additional surface lots, converting vacant land into parking lots, or constructing a parking garage. We did observe at least two parcels of vacant land that could be purchased and used for parking. However, parking is typically not the greatest and best use of valuable land in any downtown area.
2. As it appears that the parking deficit will grow significantly by 2021, we recommend that the new parking infrastructure be implemented now to help build the fund balance for a new garage that should be built by 2015.
3. In order to promote turnover and better manage vehicles abusing time limits, consider the installation of single- and multi-space meters in and adjacent to the Square. Other on-street parking areas with high demand should also be metered as necessary. Pricing should be structured to encourage the use of off-street lots for long-term parking with lower rates and/or free parking.
4. Consider implementing a two-hour time limit in areas of high demand followed by a three- and four hour time limit in the parking areas farther from the Square.
5. Increase enforcement of posted time limits for on-street parking in order to minimize abuse by merchants and employees. In order to promote a healthy and active downtown environment, visitors and customers require close, convenient parking spaces which are most commonly found on street.
6. To counter any negative publicity consider one of the following programs or something similar:
 - a. Upon request to the city, all visitors will have their first parking ticket waived.
 - b. Allow visitors to go online to the parking website, review the downtown parking rules, confirm that they understand the rules, and then waive their citation (one time only).
 - c. When a non-Oxford resident pays for their first parking citation, send them a pre-paid card to be used at any single-space meter for the amount of the ticket and invite them back. This also provides an opportunity to mail them a map of the downtown parking areas, rates, and time limits.
7. Prohibit free parking on City lots during evening events. Signage for events stating the parking fees should be posted in all City facilities. Pay stations can be utilized, where available, to collect special event fees.
8. Consider an anti-shuffling ordinance to prohibit on-street time limit abuse.
9. If needed, consider entering into agreements with nearby churches to lease spaces for daytime employee parking.
10. Consider adding additional crosswalk 'pavers' and signal lights throughout downtown as they enhance the pedestrian experience. In addition, the pavers provide a natural barrier between pedestrians and motorists stopping at intersections.
11. In order to improve safety and promote pedestrian activity throughout the Square, work to improve lighting in alleys and parking areas.
12. Consider retaining a third party parking operator to manage the parking system. The operator would report directly to the established Parking Advisory Task Force.
13. Work with the University of Mississippi to improve the drop-off/pick-up area at the corner of Jackson and 9th Avenue. We suggest improving/upgrading the lighting and providing a shelter for the many students that utilize the Ole Miss shuttle and this drop-off area on the edge of downtown.
14. Strategically place "Public Parking" signs around downtown. We believe that a uniform signage program that is in line with the character of downtown Oxford would enhance the user experience.
15. Develop a website for parking that allows users to learn more about the parking system and provide them access to paying for parking, purchasing permits, paying fines, etc. This website will also help promote the new initiatives being discussed and considered for improving the downtown parking experience.

Financial Review

The following section will be discussed during our next meeting prior to finalizing the proposed downtown Oxford parking rates and zones.

Benchmark Analysis

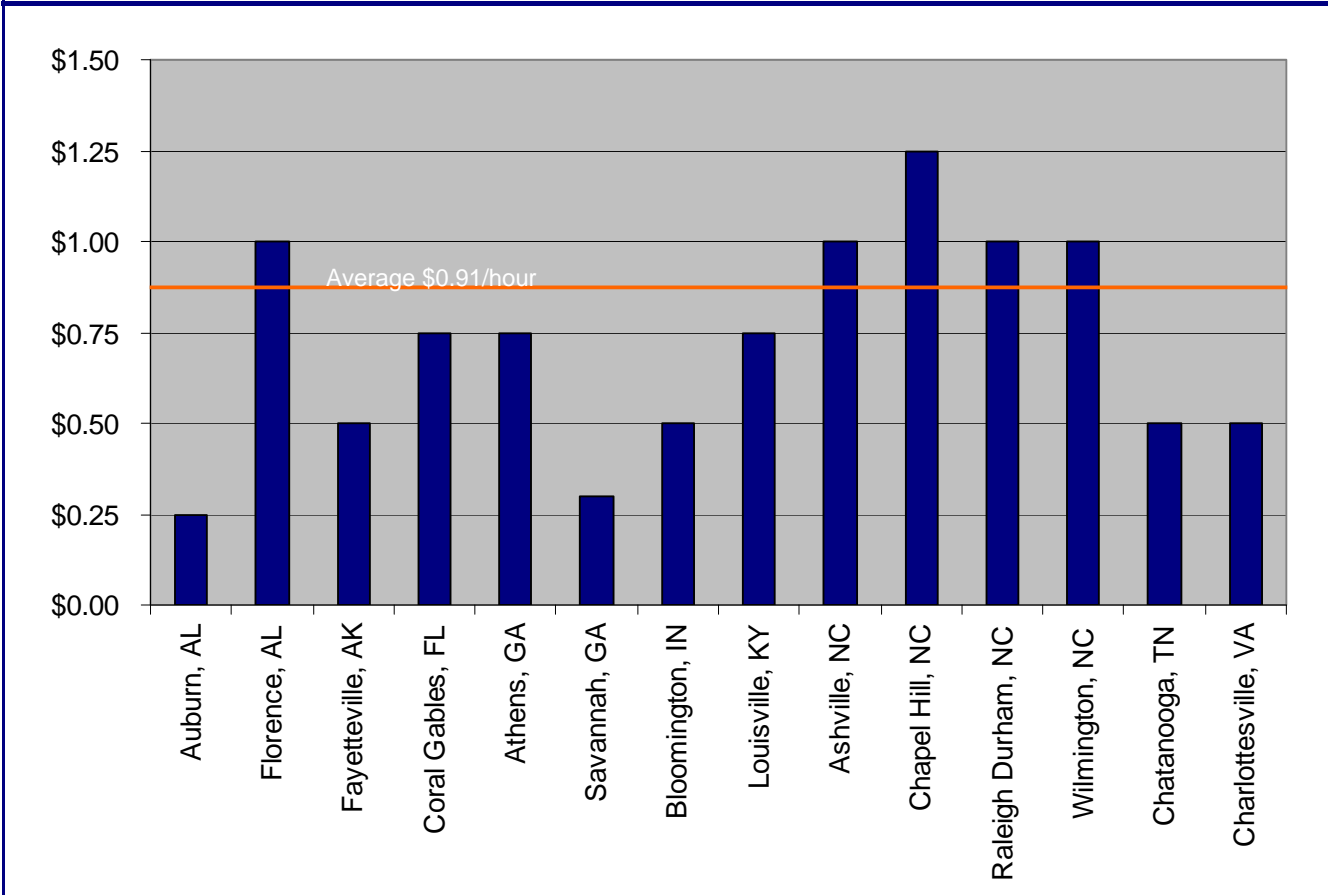
We have collected the parking rates for the following 14 cities to compare their parking rates. While the population in many of these locations is higher than in Oxford, we believe that many of these cities share some similarities to Oxford and what makes the Square a destination.

City & State	University	On-Street Rates	
		Min.	Max.
Auburn, AL	Auburn Univ.	\$0.25	\$0.25
Florence, AL	Univ. N. Alabama	\$1.00	\$1.00
Fayetteville, AK	Univ. of Arkansas	\$0.50	\$1.00
Coral Gables, FL	Univ. of Miami	\$0.75	\$1.00
Athens, GA	Univ. of Georgia	\$0.75	\$0.75
Savannah, GA	Different Universities	\$0.30	\$1.00
Bloomington, IN	Indiana Univ.	\$0.50	\$1.00
Louisville, KY	Univ. of Louisville	\$0.75	\$1.00
Ashville, NC	Various	\$1.00	\$1.00
Chapel Hill, NC	Univ. N. Carolina	\$1.25	\$1.25
Raleigh Durham, NC	Duke, NC State	\$1.00	\$1.00
Wilmington, NC	Univ. of NC, Wilmington	\$1.00	\$1.00
Chatanooga, TN	Univ. of TN, Chattanooga	\$0.50	\$1.00
Charlottesville, VA	Univ. of VA	\$0.50	\$0.50
	Average	\$0.91	

Source: Timothy Haahs and Associates, Inc. 2011

The following table compares the rates in the benchmark analysis along with showing the average hourly on-street rate.

Figure 3: Benchmark Rate Comparison



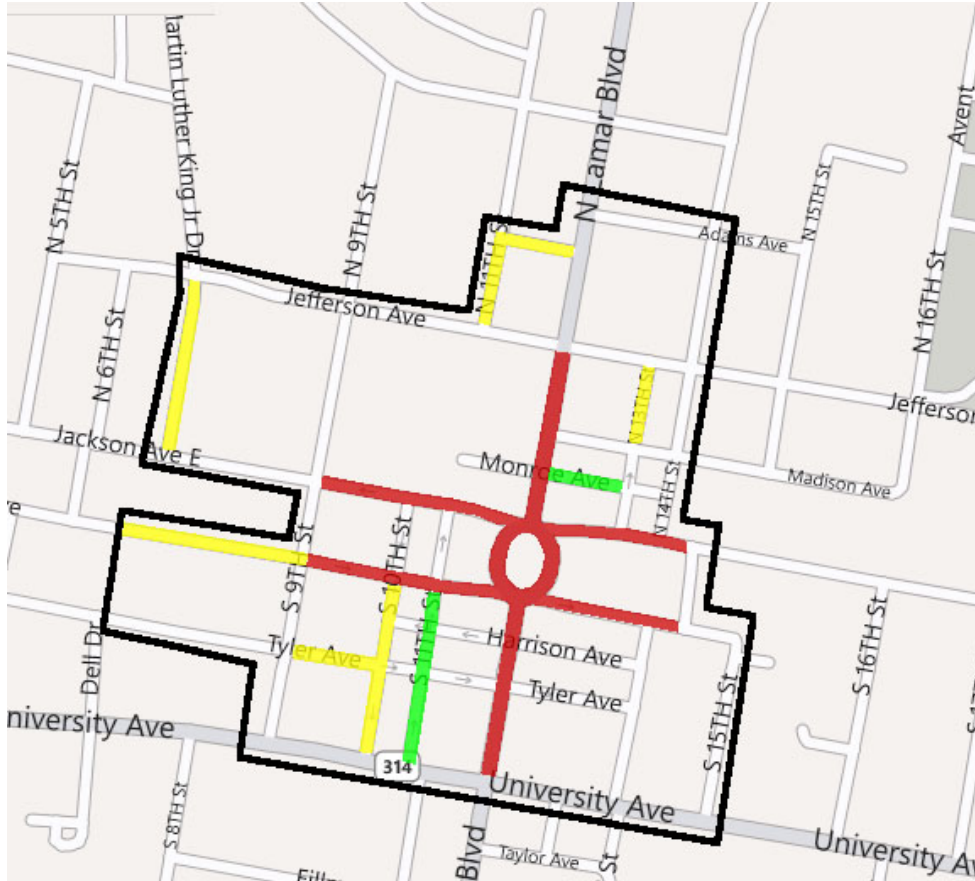
Source: Timothy Haahs and Associates, Inc. 2011

Based on the cities surveyed, the average rate for one hour of on-street parking is \$0.91. While some locations were as low as \$0.25 per hour, it may be difficult to justify the cost of multi-space meters in Oxford with a rate that low. Keep in mind, the cost associated with accepting credit cards for payment should be considered for any hourly rates under \$1.00 as there is typically a minimal fee of \$0.30 to \$0.40 per transaction below that amount.

Recommended Parking Zones

We propose a three-zone rate structure for both on- and off-street parking areas. All on-street spaces within the Square and the major roadway arteries leading to the square have been designated as Zone 1. All on-street spaces along secondary roadways but still within close proximity to the Square have been designated as Zone 2. Finally, all on-street spaces on secondary roadways but beyond a 2-3 block walk from the square have been designated as Zone 3. Maps of the parking zones are included on the following pages.

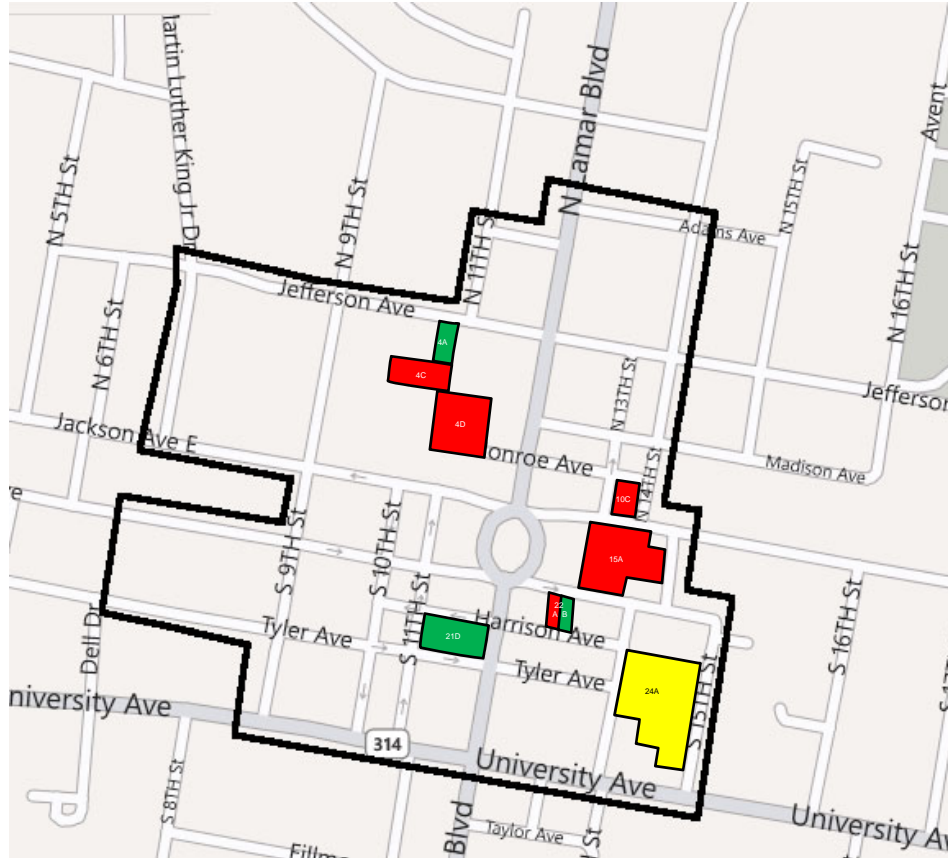
Figure 4: Recommended On-Street Parking Zones



On-Street Parking	Street	Boundaries	Inventory
Zone 1	Lamar Blvd.	Jefferson/Jackson	55
	Jackson Ave.	9th/Lamar	55
	Jackson Ave.	Lamar/14th	31
	Van Buren Ave.	9th/Lamar	46
	Courthouse Sq.	Jackson/Van Buren	90
	Van Buren Ave.	Lamar/14th	60
	Lamar Blvd.	Van Buren/University	29
	Total Zone 1 On-Street Spaces		366
Zone 2	Monroe Ave.	Lamar/13th	23
	11th St.	Van Buren/University	18
	Total Zone 2 On-Street Spaces		41
Zone 3	Adams Ave.	11th/Lamar	4
	11th St.	Adams/Jefferson	10
	MLK Dr.	Jefferson/Jackson	20
	13th St.	Jefferson/Madison	8
	Van Buren Ave.	6th/9th	26
	10th St.	Van Buren/University	28
	Tyler Ave.	9th/10th	12
Total Zone 3 On-Street Spaces		108	

Source: Timothy Haahs and Associates, Inc. 2011

Figure 5: Recommended Off-Street Parking Zones



Surface Lots	Monthly Inventory	Hourly Inventory	Total Inventory
Zone 1			
4C - Center Lot	55	0	55
4D - Monroe Entry	0	69	69
10C - Public Lot	22	33	55
15A - Public City Hall Lot	60	32	92
22A - S. City Hall	0	17	17
Total Zone 1 Surface Spaces	137	151	288
Zone 2			
4A - Jefferson Entry	30	0	30
21D - Public	43	0	43
22B - S. City Hall	15	0	15
Total Zone 2 Surface Spaces	88	0	88
Zone 3			
24A - Public	132	132	132
Total Zone 3 Surface Spaces	132	132	132

Source: Timothy Haahs and Associates, Inc. 2011

Recommended Parking Rates and Time Limits

In order to transition from a completely free and uncontrolled parking system into a managed and paid system, we recommend a three-phase implementation as shown below. We recommend a three- to four-week ambassador program during the initial phase where parking staff will be available to inform users of the new parking equipment, ask questions, and help with parking transactions. We recommend the implementation of the initial phase either during the Fall or Spring semester at the University in order to provide those users with an opportunity to familiarize themselves with the changes during the ambassador program.

We also recommend the consideration of issuing warnings in lieu of parking citations during that time. All first time violators can be provided a warning along with documentation on the parking rules, downtown parking locations, and rates. The intent of the warnings is to inform and educate users in a positive manner.

Table 11: Recommended Parking Rates and Time Limits by Zone and Phase

Hourly Rates	Initial Phase	Phase II	Final Phase	Time Limits
On-Street Parking				
Zone 1	\$1.00	\$1.50	\$2.00	3 hr
Zone 2	\$0.50	\$1.00	\$1.50	6 hr
Zone 3	Free	Free	Free	24 hr
Surface Parking				
Zone 1	Free	\$0.75	\$1.00	6 hr
Zone 2	Free	\$0.50	\$0.75	10 hr
Zone 3	Free	Free	Free	24 hr
Monthly Rates				
Surface Zone 1	Free	\$15.00	\$25.00	N/A
Surface Zone 2	Free	\$10.00	\$15.00	N/A

Source: Timothy Haahs and Associates, Inc. 2011

In the initial phase, high demand (Zone 1) on-street parking areas located on major roadways would be metered using multi-space pay stations and moderate demand (Zone 2) on-street parking areas located on secondary roadways would be metered using single-space meters. Finally, all surface parking areas would continue to operate as free parking areas for all users. Initially, time limits would only be enforced in Zone 1 and 2 on-street parking areas.

In Phase II, all Zones 1 and 2 on- and off- parking rates will be increased and time limits enforced. Both Zone 1 and 2 surface parking areas would be metered using multi-space meters. In addition, monthly permits will be available for purchase by downtown employees.

In the final Phase, all Zone 1 and 2 on- and off-street parking rates will be increased in order to further distribute the downtown parking demand and provide visitors with convenient access to downtown merchants.

Free parking is provided both on- and off- street in all three phases for those who do not wish to pay for parking and are willing to walk a little farther to their destination. However, we also recommend increased patrols in the free parking areas to ensure a safe environment for both pedestrians and vehicles.

Estimated On- and Off-Street Parking Revenue

In order to estimate the on- and off-street parking revenue, we have made the following assumptions:

- On- and Off-Street parking areas are enforced Monday through Wednesday, 8am to 8pm and Thursday through Saturday 8 am to 2am. Hours of enforcement are based on capturing the evening restaurant demand and to discourage employee use of the most convenient spaces. In addition, extended hours are in effect Thursday through Saturday to capture the late night bar and club patrons.
- On-Street Hourly Parking:
 - Zone 1 Spaces: For 312 days, we assumed each space turns over two times per day for the maximum allowed time of three hrs. This equates to an average occupancy of six hours per day (Monday – Saturday).
 - Zone 2 Spaces: For 312 days, we assumed each space turns over two times per day for an average stay of two hours. This equates to an average occupancy of four hours per day (Monday – Friday).
- Zone 1 Off-Street Spaces: For 312 days, we assumed each space turns over one time per day for an average stay of four hours. This equates to an average occupancy of four hours per day (Monday – Friday).
- All Zone 1 and Zone 2 monthly permits available will be sold to local merchants and employees. Pending any unsold permits, a portion of the off-street spaces may be converted into hourly parking which will result in increased parking revenue.
- An anti-shuffling ordinance will be in effect to prohibit users from abusing the posted time limits.
- Rates and paid zones will be regularly evaluated and appropriately adjusted to achieve a 15 percent on-street vacancy rate in the Zone 1 on-street parking areas, specifically within the Square.

Table 12: Estimated Annual On- and Off-Street Parking Revenue by Phase

Estimated Annual Operating Revenue					Initial Phase		Phase II		Final Phase	
Hourly On-Street	Spaces	Turnover	Duration	Freq.	Rate	Revenue	Rate	Revenue	Rate	Revenue
Zone 1	366	2	3	312	\$1.00	\$685,152	\$1.50	\$1,027,728	\$2.00	\$1,370,304
Zone 2	41	2	2	312	\$0.50	\$25,584	\$1.00	\$51,168	\$1.50	\$76,752
Hourly Off-Street										
Zone 1	151	1	4	312	\$0.00	\$0	\$0.75	\$141,336	\$1.00	\$188,448
Monthly Off-Street										
Zone 1	137	1	1	12	\$0.00	\$0	\$15.00	\$24,660	\$25.00	\$41,100
Zone 2	88	1	1	12	\$0.00	\$0	\$10.00	\$10,560	\$20.00	\$21,120
Total Parking Revenue					\$710,736		\$1,255,452		\$1,697,724	

Source: Timothy Haahs and Associates, Inc. 2011

Parking Equipment

We recommend the use of multi-space pay stations in all Zone 1 on-street and surface spaces. In addition, we recommend the installation of single-space meters in Zone 2 coupled with a pay by cell service. We felt that the rates and anticipated occupancy in Zone 2 did not currently warrant the more costly pay stations; however, if desired and funds are available, those spaces could be equipped with the pay stations as well. Below is an estimate of the total cost for the parking equipment. Please note, we have not formally obtained a quote from any vendors, but rather used costs based on our experience in similar projects.

Table 13: Parking Equipment Needs							
<u>On-Street</u>	<u>Street</u>	<u>Boundaries</u>	<u>Inventory</u>	<u>Meter Type</u>	<u>#</u>	<u>Cost/Meter</u>	<u>Total Cost</u>
Zone 1							
	Lamar Blvd.	Jefferson/Jackson	55	MSM	6	\$7,500	\$45,000
	Jackson Ave.	9th/Lamar	55	MSM	6	\$7,500	\$45,000
	Jackson Ave.	Lamar/14th	31	MSM	1	\$7,500	\$7,500
	Van Buren Ave.	9th/Lamar	46	MSM	6	\$7,500	\$45,000
	Courthouse Sq.	Jackson/Van Buren	90	MSM	4	\$7,500	\$30,000
	Van Buren Ave.	Lamar/14th	60	MSM	1	\$7,500	\$7,500
	Lamar Blvd.	Van Buren/University	29	MSM	6	\$7,500	\$45,000
	Total Zone 1 On-Street Spaces		366	MSM	30		\$225,000
Zone 2							
	Monroe Ave.	Lamar/13th	23	SSM	23	\$600	\$13,800
	11th St.	Van Buren/University	18	SSM	18	\$600	\$10,800
	Total Zone 2 On-Street Spaces		41	SSM	41		\$24,600
Total On-Street Equipment							\$249,600
<u>Surface Lots</u>	<u>Area</u>	<u>Total Inventory</u>	<u>Meter Type</u>	<u>#</u>	<u>Cost/Meter</u>	<u>Total Cost</u>	
Zone 1							
	4C - Center Lot	55	MSM	1	\$7,500	\$7,500	
	4D - Monroe Entry	69	MSM	2	\$7,500	\$15,000	
	10C - Public Lot	55	MSM	2	\$7,500	\$15,000	
	15A - Public City Hall Lot	92	MSM	2	\$7,500	\$15,000	
	22A - S. City Hall	17	MSM	1	\$7,500	\$7,500	
	Total Zone 1 Surface Spaces		288	MSM	8		\$60,000
Total Off-Street Equipment							\$60,000
Total Equipment Cost							\$309,600

Source: Timothy Haahs and Associates, Inc. 2011

The total estimated cost for all downtown parking pay stations and meters is approximately \$310,000. In addition to the initial capital outlay, we also recommend purchasing the annual maintenance agreement from the selected vendor which is typically around ten percent of the total cost annually and covers any major issues with the equipment. We have included this expense in our pro forma.

Estimated Parking Citation Revenue

While the current parking fines may be appropriate for a free parking system, we do not believe they are effective in a paid parking system, specifically when the cost for the fine is almost equivalent to the cost for legally paying. For example, scofflaws parking eight hours in a Zone 1 on-street space would take up a highly valuable and desired location and would pay only \$1.00 more than those that paid to legally park for two hours. The following table outlines the current and recommended parking fines.

Table 14: Current and Recommended Parking Fines		
<u>Fines</u>	<u>Current</u>	<u>Proposed</u>
Overtime Parking		
First Violation	\$5.00	\$15.00
Second Violation	\$10.00	\$30.00
Third Violation	\$25.00	\$50.00
Fourth Violation	\$50.00	\$50.00
Improper Parking	\$25.50	\$25.50
Handicap Violation	\$200.50	\$200.50

Source: City of Oxford

We understand \$40,055 in overtime citations were written in 2010 with 53 percent of those tickets paid. While the actual number of citations written was not available, we have estimated 4,000 tickets based on an average ticket price of \$10.00. In addition, 880 improper parking citations were issued for \$25.50 each (\$22,445) and 119 handicap citations were issued for \$200.50 (\$23,860). However, we also understand that enforcement is very lenient, tire chalking is the only method of enforcement, and hours of enforcement are less than under the recommended paid system.

Using the historical citation data with a modest increase due to improved technology which will allow for faster and more accurate enforcement along with more consistent enforcement practices, we have estimated the future citation revenue as shown below. Please note we have increased the collection rate from 53 percent in 2010 to 85 percent in 2012 due to the creation of a parking entity that will have more oversight.

Table 15: Estimated Citation Revenue

Citation Type	2010	2012	2013	2014	2015
Overtime Citations	4,000	6,000	6,600	7,260	7,986
Average Fine	\$10	\$20	\$20	\$20	\$20
Overtime Citation Revenue	\$40,055	\$120,000	\$132,000	\$145,200	\$159,720
Improper Citations	880	1,056	1,162	1,278	1,406
Average Fine	\$26	\$26	\$26	\$26	\$26
Improper Citation Revenue	\$22,440	\$26,928	\$29,621	\$32,583	\$35,841
Handicap Citations	119	131	144	158	174
Average Fine	\$201	\$201	\$201	\$201	\$201
Handicap Citation Revenue	\$23,860	\$26,245	\$28,870	\$31,757	\$34,933
Total Estimated Citation Revenue	\$86,355	\$173,173	\$190,491	\$209,540	\$230,494
85% Citations Collected	\$73,401	\$147,197	\$161,917	\$178,109	\$195,920
Citation Type	2016	2017	2018	2019	2020
Overtime Citations	8,785	9,663	10,629	11,692	12,862
Average Fine	\$20	\$25	\$25	\$25	\$25
Overtime Citation Revenue	\$175,692	\$241,577	\$265,734	\$292,308	\$321,538
Improper Citations	1,546	1,701	1,871	2,058	2,264
Average Fine	\$26	\$30	\$30	\$30	\$30
Improper Citation Revenue	\$39,425	\$51,021	\$56,123	\$61,735	\$67,909
Handicap Citations	192	211	232	255	281
Average Fine	\$201	\$201	\$201	\$201	\$201
Handicap Citation Revenue	\$38,426	\$42,374	\$46,611	\$51,273	\$56,400
Total Estimated Citation Revenue	\$253,543	\$334,971	\$368,469	\$405,315	\$445,847
85% Citations Collected	\$215,512	\$284,726	\$313,198	\$344,518	\$378,970

Source: Timothy Haahs and Associates, Inc. 2011

Total System wide Parking Revenue

Using the estimated on-street, off-street, and citation revenue outlined previously, we have calculated the system-wide parking revenue assuming that the Implementation Phase would occur in 2012, Phase II in 2013, and the Final Phase in 2014 as shown below. Please note we have assumed a five percent increase in hourly and monthly parking rates in 2018.

Operating Revenue	2012	2013	2014	2015	2016
Hourly Parking Revenue	\$710,736	\$1,220,232	\$1,635,504	\$1,635,504	\$1,635,504
Monthly Parking Revenue	\$0	\$35,220	\$62,220	\$62,220	\$62,220
Citation Revenue	\$147,197	\$161,917	\$178,109	\$195,920	\$215,512
Total Operating Revenue	\$857,933	\$1,417,369	\$1,875,833	\$1,893,644	\$1,913,236

Operating Revenue	2017	2018	2019	2020	2021
Hourly Parking Revenue	\$1,635,504	\$1,717,279	\$1,717,279	\$1,717,279	\$1,717,279
Monthly Parking Revenue	\$62,220	\$65,331	\$65,331	\$65,331	\$65,331
Citation Revenue	\$284,726	\$313,198	\$344,518	\$378,970	\$416,867
Total Operating Revenue	\$1,982,450	\$2,095,808	\$2,127,128	\$2,161,580	\$2,199,477

Source: Timothy Haahs and Associates, Inc. 2011

As shown above, we estimate approximately \$850,000 in parking revenue during the first full year of operation under a paid system. Upon maturity, we anticipate the system wide annual revenue could reach over \$2MM.

Operational Expenses

The following operational expenses are based on hiring a third-party parking operator to manage the 1,200 public parking spaces in downtown, assist with the installation of pay stations, signage, and the initial ambassador program. We have made the following assumptions for expenses on an annual basis:

- All expenses would increase by three percent annually to account for inflation.
- We have assumed the following labor expense:

Position	Salary/Wage	Benefits/Taxes/WC	All In Labor	FTE	Total Labor
Manager	\$60,000	\$24,000	\$84,000	1	\$84,000
PEO/Collections	\$28,000	\$11,200	\$39,200	3	\$117,600
Maintenance	\$28,000	\$11,200	\$39,200	1	\$39,200
Administrative	\$30,000	\$12,000	\$42,000	1	\$42,000
Total					\$282,800

- Uniform and Laundry Expense of \$800.
- Telephone and Communication Expense of \$3.00 per space.
- Postage Expense of \$2.00 per space
- Data Processing Expense of \$2.00 per space.
- Supplies Expense of \$3.00 per space.

8. General Repairs and Maintenance expense of \$4.00 per space.
9. Parking Equipment Maintenance Agreement of 10% total Capital Cost.
10. License and Permit Expense of \$1,000 per year.
11. Liability Insurance Expense of \$8.00 per space.
12. Management Fee Expense of \$25.00 per space.
13. Credit Card Processing and Fee Expense of three% of the Total Revenue.

Table 17: Estimated Operational Expenses

		2012	2013	2014	2015	2016
Operating Expenses						
Total Labor	6	\$282,800	\$291,284	\$300,023	\$309,023	\$318,294
Uniforms/Laundry	\$800	\$4,800	\$4,944	\$5,092	\$5,245	\$5,402
Telephone/Communications	\$3	\$3,600	\$3,708	\$3,819	\$3,934	\$4,052
Postage	\$2	\$2,400	\$2,472	\$2,546	\$2,623	\$2,701
Data Processing	\$2	\$2,400	\$2,472	\$2,546	\$2,623	\$2,701
Supplies	\$3	\$3,600	\$3,708	\$3,819	\$3,934	\$4,052
General Repairs/Maintenance	\$4	\$4,800	\$4,944	\$5,092	\$5,245	\$5,402
Meter Maintenance Contract	10%	\$30,960	\$31,889	\$32,845	\$33,831	\$34,846
License and Permits	\$1,000	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126
Liability Insurance	\$8	\$9,600	\$9,888	\$10,185	\$10,490	\$10,805
Management Fee	\$25	\$30,000	\$30,900	\$31,827	\$32,782	\$33,765
CC Processing/Fees	3%	\$25,738	\$42,521	\$56,275	\$56,809	\$57,397
Total Operating Expenses		\$401,698	\$429,760	\$455,131	\$467,631	\$480,543
		2017	2018	2019	2020	2021
Operating Expenses						
Total Labor	6	\$327,843	\$337,678	\$347,808	\$358,243	\$368,990
Uniforms/Laundry	\$800	\$5,565	\$5,731	\$5,903	\$6,080	\$6,263
Telephone/Communications	\$3	\$4,173	\$4,299	\$4,428	\$4,560	\$4,697
Postage	\$2	\$2,782	\$2,866	\$2,952	\$3,040	\$3,131
Data Processing	\$2	\$2,782	\$2,866	\$2,952	\$3,040	\$3,131
Supplies	\$3	\$4,173	\$4,299	\$4,428	\$4,560	\$4,697
General Repairs/Maintenance	\$4	\$5,565	\$5,731	\$5,903	\$6,080	\$6,263
Meter Maintenance Contract	10%	\$35,891	\$36,968	\$38,077	\$39,219	\$40,396
License and Permits	\$1,000	\$1,159	\$1,194	\$1,230	\$1,267	\$1,305
Liability Insurance	\$8	\$11,129	\$11,463	\$11,807	\$12,161	\$12,526
Management Fee	\$25	\$34,778	\$35,822	\$36,896	\$38,003	\$39,143
CC Processing/Fees	3%	\$59,473	\$62,874	\$63,814	\$64,847	\$65,984
Total Operating Expenses		\$495,314	\$511,790	\$526,197	\$541,102	\$556,527

Source: Timothy Haahs and Associates, Inc. 2011

We recommend budgeting \$400,000 to \$500,000 in Year 1 towards operating expenses to support the parking system based on the assumptions set forth in this study. The entire Operating Pro Forma is included on the following page.

Table 18: Pro Forma Operating Statement

Spaces
Inflation 1,200
3%

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Operating Revenue										
Hourly Parking Revenue	\$710,736	\$1,220,232	\$1,635,504	\$1,635,504	\$1,635,504	\$1,635,504	\$1,717,279	\$1,717,279	\$1,717,279	\$1,717,279
Monthly Parking Revenue	\$0	\$35,220	\$62,220	\$62,220	\$62,220	\$62,220	\$65,331	\$65,331	\$65,331	\$65,331
Citation Revenue	\$147,197	\$161,917	\$178,109	\$195,920	\$215,512	\$284,726	\$313,198	\$344,518	\$378,970	\$416,867
Total Operating Revenue	\$857,933	\$1,417,369	\$1,875,833	\$1,893,644	\$1,913,236	\$1,982,450	\$2,095,808	\$2,127,128	\$2,161,580	\$2,199,477
Operating Expenses										
Total Labor	\$282,800	\$291,284	\$300,023	\$309,023	\$318,294	\$327,843	\$337,678	\$347,808	\$358,243	\$368,990
Uniforms/Laundry	\$4,800	\$4,944	\$5,092	\$5,245	\$5,402	\$5,565	\$5,731	\$5,903	\$6,080	\$6,263
Telephone/Communications	\$3,600	\$3,708	\$3,819	\$3,934	\$4,052	\$4,173	\$4,299	\$4,428	\$4,560	\$4,697
Postage	\$2,400	\$2,472	\$2,546	\$2,623	\$2,701	\$2,782	\$2,866	\$2,952	\$3,040	\$3,131
Data Processing	\$2,400	\$2,472	\$2,546	\$2,623	\$2,701	\$2,782	\$2,866	\$2,952	\$3,040	\$3,131
Supplies	\$3,600	\$3,708	\$3,819	\$3,934	\$4,052	\$4,173	\$4,299	\$4,428	\$4,560	\$4,697
General Repairs/Maintenance	\$4,800	\$4,944	\$5,092	\$5,245	\$5,402	\$5,565	\$5,731	\$5,903	\$6,080	\$6,263
Meter Maintenance Contract	\$30,960	\$31,889	\$32,845	\$33,831	\$34,846	\$35,891	\$36,968	\$38,077	\$39,219	\$40,396
License and Permits	\$1,000	\$1,030	\$1,061	\$1,093	\$1,126	\$1,159	\$1,194	\$1,230	\$1,267	\$1,305
Liability Insurance	\$9,600	\$9,888	\$10,185	\$10,490	\$10,805	\$11,129	\$11,463	\$11,807	\$12,161	\$12,526
Management Fee	\$30,000	\$30,900	\$31,827	\$32,782	\$33,765	\$34,778	\$35,822	\$36,896	\$38,003	\$39,143
CC Processing/Fees	\$25,738	\$42,521	\$56,275	\$56,809	\$57,397	\$59,473	\$62,874	\$63,814	\$64,847	\$65,984
Total Operating Expenses	\$401,698	\$429,760	\$455,131	\$467,631	\$480,543	\$495,314	\$511,790	\$526,197	\$541,102	\$556,527
Net Operating Income	\$456,235	\$987,609	\$1,420,702	\$1,426,013	\$1,432,692	\$1,487,136	\$1,584,018	\$1,600,931	\$1,620,478	\$1,642,950
Parking Fund	\$456,235	\$1,443,845	\$2,864,547	\$4,290,559	\$5,723,252	\$7,210,387	\$8,794,406	\$10,395,337	\$12,015,815	\$13,658,765

Source: Timothy Haahs and Associates, Inc. 2011

As shown in the estimated pro forma, we anticipate a net operating income of approximately \$450,000 in the first year which could be directed into a separate parking fund. Ideally, the fund will allow the parking advisory task force to support the mission of the downtown parking system by funding future improvements.

Summary

The downtown Oxford parking assets are currently free of charge to all users and as such, many of the most convenient spaces are occupied by long-term employee and merchant vehicles. While we understand those users must also be accommodated, we also understand that the economic vitality of downtown is highly dependent on customers and visitors. We strongly recommend and encourage the conversion of the free parking system into a paid parking system as outlined in this study.

While some may believe parking rates will deter customers and visitors, it is important to note the vitality of downtown Oxford as a destination. Downtown customers are seeking the unique restaurants and retail establishments downtown that they cannot get in other chain restaurants, mall, or big box retailers. These customers are also seeking an “experience” that downtown provides as a place to walk, window shop, gather with friends, and enjoy the beautiful architecture.

As future changes are needed or desired, excess parking revenue could be used to make improvements to downtown and reinvesting the parking revenue right back into the parking system. This type of program has been highly successful in many cities and towns, ultimately creating a win-win situation for all users and an even better downtown “experience.”

APPENDIX A
Public Workshop Notes

Workshop Attendees

1. Vicky Gagliano (Timothy Haahs)
2. Mike Martindill (Timothy Haahs)
3. Tim Akers
4. Karen Seeley
5. Ron Hipp
6. Becky Hipp
7. Bart Richmond??
8. Richard Howarth
9. Errol Castens
10. Robert Allen
11. Penton Atchley
12. Vickie Cook
13. Kate Kellum
14. Lyn Roberts
15. Gray Tollison
16. Jeff Johnson
17. Jim Pryor
18. Jane Shaw
19. Judy McMinn
20. Johnny Barrett
21. Bill Ketchum
22. Christy Krapp
23. William Baker
24. Janice Antonow
25. Jennifer Kuhn
26. Forest Hinton
27. Ney Williams
28. Taylor Moore
29. Michael Worthy
30. Lloyd Oliphant

Parking Builders (Positive aspects of the existing parking system)

- Free parking brings business downtown
- Proximity is good, front door availability
- New parking lot
- Generally safe
- Locals are familiar with traffic patterns and where to park
- Wayfinding is easy
- Square is a focal point
- Transit works well
- More bicycle parking
- Local "Honey Holes"
- No ugly meters or parking lots
- Small town atmosphere
- Good taxi/bus lane arrangement
- Maintained historical atmosphere
- Easy to find a space
- Use of church parking seems to work
- Adequate lighting in premium parking areas
- Mostly ADA accessible
- Enforcement is adequate
- Adequate off-Square parking

Parking Barriers (Challenging aspects of the existing parking system)

- Could have more occupancy with better code requirements
- Can't find a parking spot
- Not enough premium spaces, more automobile traffic circling
- Merchants park in customer spaces
- Folks using church parking during the week (3 churches have parking)
- Church parking is not available during the week
- Overnight parking – cars left in free parking lots
- No access to parking for government uses
- Buses on the Square
- Lighting off the Square is poor
- Taxi spaces should only be designated when needed (available during the day)
- Non-customers using bank parking
- Traffic issues
- Spaces are too tight/small
- Peak Hours and Friday's are bad
- Wayfinding is poor, Not enough signage, Where is visitor parking?
- Safety
- Driver Distractions
- Downtown resident parking association w/condos
- No employee parking on the Square
- Powerhouse lot difficult to navigate
- Parking lots need to be upgraded
- Meters will force churches to enforce their lots
- Growth will continue at UM and Community
- Inconsistent enforcement
- Poor linkages and walkways to/from parking areas

Opportunities (Means to improve the existing parking system)

- Better enforcement
- Better parking regulations for residential
- New and Improved transit system, more buses during peak hours
- Increase density (assuming more parking is available)
- Create pedestrian mall around the Square
- Paid parking, Paid parking in premium spaces
- Parking Garage
- Educate the public to keep the lots clean of trash and litter
- Improve wayfinding and information o
- Improve perception of pedestrian safety
- Cheap, efficient employee shuttle from exterior lots
- Improve lighting
- Public restrooms

APPENDIX B
Tacoma Documents

Guiding Principles

Tacoma Downtown Paid Parking Guiding Principles

The decision to move to paid parking and the management of the parking system should facilitate, support and contribute to the following principles:

- While numerous users need parking in downtown, the priority customer in the public supply is the customer/visitor who uses downtown to shop, dine and recreate. This parker represents a key component of downtown's existing and future growth and vitality and must be accommodated.
- Make downtown accessible to all users through multiple travel modes.
- Make downtown parking user-friendly – easy to access, easy to understand.
- Assure that affected downtown stakeholders are involved in decisions about parking policy.
- Make downtown parking more convenient and accessible for the priority user – the customer.
- Provide a "parking product" in the downtown that is of the highest quality, and safe, to create a positive customer experience.
- On-street parking should be recognized as a finite resource and managed to assure maximum access for the priority customer.
- Manage the public parking supply using the 85% rule.
- Encourage alternate travel modes (e.g., transit, bike, walk and ridesharing).

Tacoma Residential Parking Permit Study

May 9, 2011

Subject: Tacoma Residential Parking Program Study

Background and Authority:

Control of access to and use of the right-of-way on city streets is a municipal responsibility. Priority of use and access is generally a function of both zoning and transportation policy. Public safety, traffic flow and transit are given the highest priorities. In commercial zones, access for deliveries and customers generally is the next highest priority. In residential areas, access for service vehicles and residential parking takes precedence over non-resident parking.

Residential parking zones (RPZs) were first created in response to the recognition that certain institutions such as hospitals, universities and large office buildings located near residential neighborhoods caused high levels of parking congestion associated with commuters or visitors to these "parking magnets".

The legal precedent for the creation of residential parking zones was established by a 1977 U.S. Court decision which upheld the County of Arlington, Virginia's residential parking permit law. The Virginia RPZ law was challenged under the Equal Protection Clause of the Fourteenth Amendment, as discriminatory to non-residents. The ruling stated:

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"To reduce air pollution and other environmental effects of automobile commuting, a community reasonably may restrict on-street parking available to commuters, thus encouraging reliance on car pools and mass transit. The same goal is served by assuring convenient parking to residents who leave their cars at home during the day. A community may also decide that restrictions on the flow of outside traffic into particular residential areas would enhance the quality of life there by reducing noise, traffic hazards, and litter. By definition, discrimination against nonresidents would inhere in such restrictions....The United States as amicus curiae notes that parking restrictions to discourage automobile commuting have been recommended by the Environmental Protection Agency to implement the Clean Air Amendments of 1970."

In addition, the Court upheld Arlington County's conditions for establishing RPZs:

"The average number of vehicles [operated by persons whose destination is a commercial or industrial district] is in excess of 25% of the number of parking spaces on such streets and the total number of spaces actually occupied by any vehicles exceeds 75% of the number of spaces on such streets on the weekdays of any month. ..."

Modifications of this test are now reflected in code language governing residential permit parking in many cities across the United States.

The City of Tacoma Municipal Code describes the current City authority to establish residential parking zones in Section 11.05.235 Residential parking zones-authority. Sections 11.05.236 and 11.05.237 cover "RPZ parking violation" and "abuse of privileges", respectively.



There are a limited number of RPZs established within the City limits. Each is associated with a particular residence and identifies particular parking spaces that are reserved only for holders of RPZ permits. These zones were created due to the high number of commuters for downtown and Tacoma Ave employment locations who compete for these spaces during business hours, Monday through Friday.

Current RPZ Practices in Cities Comparable to Tacoma:

The following table summarizes RPZ survey results from twelve cities that have been used as comparisons for other Tacoma traffic and parking studies. The following key points emerge for the survey data:

1. The majority of the cities (11 of 12) have residential parking zone programs.
2. All of the cities in the survey limit the RPZ programs to residential zoned areas that are subject to on-street parking space competition from non-resident commuters or visitors to adjacent area attractions, parking generators like hospitals or universities or adjacent commercial business/retail districts.
3. Most of the zone programs have minimum size or number of block faces required for consideration. None reserve specific parking spaces for specific residences, while some require that a vehicle be parked within a specific number of blocks of the registered address.
4. The majority (7 of 11) require a resident petition process, occupancy evaluation and Council concurrence.
5. The majority (7 of 11) charge an annual fee for the permits
6. The majority (7 of 11) limit the number of permits per residence

Residential Permit Zone Survey for Tacoma Review

City	RPZ Program	Permit Fee (\$/Year)	Permits per Residence	Permit Use Restrictions	Process to Set-up/Change Zones	Zone Restricted to Residential Areas Only (2)
Albuquerque	yes	Free	2 + 1 guest	Only in specified zone	-Designated by City staff	Yes
Atlanta	yes	\$20	2 – single family 1 – multi family	Only in specified zone	-Resident request & vote -Occupancy & needs rating test by City staff	Yes
Boise	yes	Free	No current limit, but ordinance authority to limit	Within 2 blocks of address	-Petition process -Council approval	Yes



City of Tacoma
Parking Advisory Task Force
Residential Parking Permit Study

City	RPZ Program	Permit Fee (\$/Year)	Permits per Residence	Permit Use Restrictions	Process to Set-up/Change Zones	Zone Restricted to Residential Areas Only (2)
Boulder	yes	\$17	2 per resident + 2 guest	Only in specified zone	-Petition process -Public hearing -City Manager decision	Yes
Denver	yes	Free	1 per licensed driver + 1 for household + 2 guest	Within 1 block of address	-Resident request -City staff studies & conducts resident acceptance survey	Yes
Portland	yes	\$35	No limit	Only in specified zone	-Occupancy test -Petition process -Community vote	Yes
Sacramento	yes	Free	No limit	Within 2 blocks of address	-Public hearing -Residential vote -Council concurrence	Yes
Salt Lake City	yes	\$36	No limit	Only in specified zone	-Resident petition process	Yes
San Francisco	yes	\$98	4	Only in specified zone	-Petition process -Occupancy test _Multiple agency reviews	
Seattle	yes	\$32.50	4 + 2 guest	Only in specified zone, within 2 blocks of address	-Occupancy test -Public hearing -Transportation Director decision	Yes
Vancouver BC	yes	\$32-\$63	2+ guests Majority of zones	Only in specified zone	Council approval after occupancy study	Yes
Vancouver WA (1)	no	n/a	n/a			n/a

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- (1) Vancouver, WA has an on-street parking permit system that facilitates all day parking in under-utilized commercial on-street parking spaces
- (2) Parking in residential neighborhoods with Permit restrictions is time-limit controlled, either free or paid, depending on the degree of control required

Detailed Description of Community RPZ Programs:

City: Albuquerque, New Mexico

Purpose of RPZ Program: The city has established restricted parking zones in residential neighborhoods around the State Fairgrounds, the downtown commercial core and the University of New Mexico. The purpose of the zones is to limit commuter and visitor parking associated with the above parking attractors from spilling over into the adjacent residential neighborhoods.

Zoning Limitations Associated with RPZ Zone Areas: All of the RPZ areas are zoned residential.

Process to Establish or Modify an RPZ Permit Area: It appears that the establishment of zones is the sole responsibility of the City's Parking group. There is no reference in the Code of Ordinances or on the Parking web site concerning a procedure to request or modify one of the existing RPZ areas.

Eligibility and Limitations associated with RPZ Areas: Permit eligibility is limited to residents living within a designated zone. Each resident address is allowed two permits and one visitor/guest permit. The regular permits must be registered to a specific vehicle license plate number. A government issued identification document, vehicle registration and proof of residency is required for the application process. Permit parking is limited to the zone of issue.

The visitor permit must be used within two blocks of the registered address.

Permit Cost: Free, no expiration

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City: Atlanta, Georgia

Purpose of RPZ Program: The purpose of the Atlanta RPZ program is to limit non-resident parking in residential neighborhoods adjacent to parking generators.

Zoning Limitations Associated with RPZ Zone Areas: Limited to areas zoned residential.

Process to Establish or Modify an RPZ Permit Area: An RPZ area is created administratively by the Office of Transportation (OOT) and is defined in the Municipal Code (150, Article IV, Division 4).

The process to establish or modify a RPZ is initiated by a public request to the Office of Transportation (OOT). The requested area must be at least two blocks in length and within 1500 ft of a defined traffic generator. The request must be followed by 70% of the impacted residents signing an OOT issued petition confirming their support of the proposed zone.

In determining eligibility for zone creation, the OOT considers the availability of off-street parking and the parking occupancy during the controlled time period. General occupancy must be greater than 75%, of which 33% are non-resident vehicles. If the OOT rating system indicates justification for a zone, the residents are notified, permit applications are accepted and signs installed.



Additions or reductions of existing zones follow the same procedure, but only require 50% of residents approving.

Eligibility and Limitations associated with RPZ Areas: Permit eligibility is limited to residents living within a designated zone. Each single family address is allowed two permits. Multi-family addresses are allowed 1 permit per unit. A permit must be registered to a specific vehicle license plate number. A driver's license in the name of the registered owner, vehicle registration and proof of residency is required for the application process. Permit parking is limited to the zone of issue.

Permit Cost: Permit cost is \$20 per vehicle and requires renewal each year.

City: Boise, Idaho

Purpose of RPZ Program: The Boise RPZ program is established as part of the City Code 10-11-11. The program is "designated for those residential areas with a high percentage of all day non-resident parkers".

Zoning Limitations Associated with RPZ Zone Areas: Limited to areas zoned residential.

Process to Establish or Modify an RPZ Permit Area: Boise requires a neighborhood petition process to initiate a request to form or modify a RPZ area. Once the boundaries and parking control recommendations of the zone are established by the Public Works Department, Council approval is necessary to create the zone.

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Eligibility and Limitations associated with RPZ Areas: Currently there are no established limits on the number of permits issued per residential address. The City ordinance governing RPZs reserves the authority for Council to establish limits in the future. A permitted vehicle must park within two blocks of the registered address.

Permit Cost: Permits are issued free of charge, with proof of identity, residential address and vehicle registration.

City: Boulder, Colorado

Purpose of RPZ Program: In Boulder, an RPZ is known as a Neighborhood Permit Parking Program (NPP). A NPP is a residential area where parking is restricted. It is a tool developed to balance the needs of all who park on Boulder streets, including residents, commuters and visitors. The plan was adopted as part of the City of Boulder Transportation Master Plan.

Zoning Limitations Associated with RPZ Zone Areas: Limited to residential areas.

Process to Establish or Modify an RPZ Permit Area: The process to start the establishment or modification of an RPZ area requires a neighborhood petition from at least 25 residents. Following receipt of the petition, the City conducts a parking survey, develops a draft proposal with proposed

boundaries and recommended parking restrictions. These recommendations include time limit restrictions for non-permit vehicles as well as hours of permit enforcement.

A neighborhood meeting is conducted to review and modify the draft proposal. This is followed by a Public Hearing before the Boulder Transportation Advisory Board. The Board recommendations and hearing comments are forwarded to the City Manager for the final zone creation decision.

Eligibility and Limitations associated with RPZ Areas: Boulder issues up to 2 permits per residence plus two free guest passes. Businesses located in NPP Zones may purchase up to 3 employee parking passes. Only one of the zones permits purchase of a limited number of commuter parking passes. Permit parking is limited to the zone of issue.

Permit Cost: Residential passes cost \$17 per pass per year. Business employee passes cost \$75 per pass per year. Limited commuter passes cost \$78 per quarter.

City: Denver, Colorado

Purpose of RPZ Program: The Denver RPZ program was established for residential blocks that experience increased parking by non-residents.

Zoning Limitations Associated with RPZ Zone Areas: Limited to residential areas.

Process to Establish or Modify an RPZ Permit Area: Residents in areas that seem to be experiencing increased parking by non-residents file a RPZ request with Public Works. The Public Work staff reviews the area and parking conditions and prepares a residential survey form if an RPZ may be appropriate. The survey form requests an indication from area residents concerning approval or dis-approve of the zone request. Basis on the nature of the survey response, Public Works makes the final decision.

Eligibility and Limitations associated with RPZ Areas: Permit parking is required to be within 1 block of the registered address. One permit is issued to each licensed driver plus an additional permit for the residential address. Two guest permits are issued per address.

Permit Cost: Permits are issued free of charge, with proof of identity, residential address and vehicle registration.

City: Portland, Oregon

Purpose of RPZ Program: The purpose of the Portland RPZ program is to limit non-resident parking in high parking occupancy residential neighborhoods adjacent to parking generators.

Zoning Limitations Associated with RPZ Zone Areas: Limited to residential areas.

Process to Establish or Modify an RPZ Permit Area: Portland has strict occupancy data-based criteria for establishing an RPZ area. To start the process, a local neighborhood group, representing a minimum area for 40 block-faces or 8,000 linear feet of curb, needs to attest that peak parking occupancy exceeds 75% for at least 4 days per week, 9 months of the year. Additionally, 25% of the parked vehicles must be from outside of the proposed zone area.

Once City staff verifies the parking conditions, and the boundaries and parking controls are identified, approval of the formal RPZ requires a resident petition process, a formal public meeting process and a resident vote with at least 60% approval. With successful neighborhood support, Council approval is needed to officially approve the zone.

Eligibility and Limitations associated with RPZ Areas: There are currently no limits on the number of permits issues to a specific residential address. Permit parking is limited to the zone of issue.

Permit Cost: The annual permit fees are set as a function of the annual City budget process, with the objective to be cost neutral. The current fee is \$35.

City: Sacramento, California

Purpose of RPZ Program: The Sacramento program was started in 1979 in areas where residents had difficulty parking near their residential address during the day because of commuter on-street parking or where off-street parking was not adequate.

Zoning Limitations Associated with RPZ Zone Areas: Limited to residential areas.

Process to Establish or Modify an RPZ Permit Area: The process starts with a written request from the neighborhood. This is followed by a public hearing process and a residential property owners vote. Following a positive vote, Council concurrence is required to formally establish the zone.

Eligibility and Limitations associated with RPZ Areas: Permit parking is valid only within two blocks of the registered address. There are currently no limits on eligibility other than proof of area residency. One guest pass is issued per address.

Permit Cost: Permits are free and must be renewed every two years. All of the permits within a zone expire on the same date.

City: Salt Lake City, Nevada

Purpose of RPZ Program: Salt Lake City has established a City Parking Program (CPP) for areas with parking "generators" like hospitals, university complexes and other large buildings that attract non-resident (commuters) to seek parking in residential neighborhoods.

Zoning Limitations Associated with RPZ Zone Areas: Limited to residential areas.

Process to Establish or Modify an RPZ Permit Area: Establishing or modifying a zone requires a neighborhood petition process. The petition contains a listing of all of the residential addresses within the requested zone. Signatures are required from each residential address that supports the requested zone. Completed petitions are submitted to the Department of Transportation for verification and zone implementation.

Eligibility and Limitations associated with RPZ Areas: Permits are issued only to vehicles registered to an address within the specific CPP. There is no limit to the number of permits per address.

Permit Cost: The permit cost is \$36 per year. Costs are adjusted periodically to cover the administrative costs of administering the program. Permit parking is limited to the zone of issue.

City: San Francisco, California

Purpose of RPZ Program: The San Francisco Residential Parking Permit (RPP) is designed to preserve neighborhood living within a major urban center. The program's main goal is to provide more parking spaces for residents by discouraging long-term parking by people who do not live in an area.

Zoning Limitations Associated with RPZ Zone Areas: Limited to residential areas.

Process to Establish or Modify an RPZ Permit Area: For an area to be considered as a new RPP, it must contain contiguous block faces totaling a minimum of one mile of frontage. The process starts with a petition from at least 250 households within the proposed zone. The Transportation Engineering Department applies an occupancy test, requiring at least an 80% peak occupancy with 50% of the vehicles being non-resident, before studying the control requirements of the zone. The proposed plan then requires review by the Interdepartmental Staff Committee on Traffic and Transportation. This is followed by a departmental public hearing and finally a review by the SFMT Board of Directors.

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Eligibility and Limitations associated with RPZ Areas: There is a limit of 4 permits per single address. Permit parking is limited to the zone of issue.

Permit Cost: Permits cost \$98 per year.

City: Seattle, Washington

Purpose of RPZ Program: Seattle's RPZs were created to protect residential neighborhoods from the parking and traffic impacts of major generators located in their midst, and in so doing to protect the neighborhoods as a whole from potential changes in land use and loss of property values.

Zoning Limitations Associated with RPZ Zone Areas: Limited to residential areas.

Process to Establish or Modify an RPZ Permit Area: After receipt of a community request, the Seattle Department of Transportation (SDOT) will conduct an initial assessment to determine whether an RPZ is appropriate for the area. This will include surveying the street to determine if the parked occupancy on the street approaches 75 percent across a ten block area.



Once the determination has been made that an RPZ may be appropriate, SDOT will conduct a formal parking study. This study will investigate parking occupancy and type of vehicles (residential or business-related) parked over the course of the day/evening or weekend. Parking studies typically include hourly counts of vehicles on the street, as well as license plate tracking to determine turnover on the street. License plate tracking also helps determine which vehicles on the street belong to residents and which vehicles belong to businesses or commuters.

The Director may establish a new or expand an existing RPZ when 75 percent of the curb space parking on 10 contiguous blocks (20 block faces) is generally occupied, and when over 35 percent of those vehicles are used by non-residents. If these conditions are not met, SDOT will formally notify the person(s) requesting the RPZ that it did not qualify. Even if these criteria are not met, the Director has authority to establish an RPZ when the parking problem would be ameliorated and the public interest would be served by creation of an RPZ.

If the RPZ study determines that creation of an RPZ may be warranted due to parking impacts from non-residents, SDOT will engage affected and interested community stakeholders to review the results of the parking study and assist in developing a potential RPZ proposal. Based on the parking data and information provided by residents related to the RPZ request, SDOT staff will develop a draft RPZ design

SDOT will then conduct a broad public outreach program to gather input on the RPZ draft design.

Prior to any decision to establish an RPZ, SDOT will hold an administrative public hearing to provide interested persons an opportunity to submit written and spoken comment into the public record, pursuant to SMC 11.16.317(C){2}. SDOT will mail a copy of the hearing notice at least 20 days prior to the public hearing, stating the hearing time and location. This notice will be sent to all owners, commercial lessees and residents of property within 300 feet of the affected RPZ. SDOT will publish the notice of hearing in a local newspaper at least 20 days prior to the hearing, stating the hearing time and location.

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The SDOT Traffic Management Division Director will make a final decision whether or not to establish an RPZ based on parking data and public input.

Eligibility and Limitations associated with RPZ Areas: There is a limit of 4 permits per household unit for residential addresses within a zone. The permit is valid only within six contiguous blocks of the registered address. Two guest passes are available for each household unit address. Daily passes are also available for larger groups.

Permit Cost: RPZ permits cost \$32.50 per year and are issued for a two year period.

City: Vancouver, British Columbia

Purpose of RPZ Program: Vancouver uses a progressive series of residential parking restrictions in impacted neighborhoods. All non-resident parking is limited to 3 hours in residential neighborhoods. Higher parking occupancy neighborhoods can be posted for residential parking only. Both of these restrictions are self-policing with enforcement only on a complaint basis.



When a Vancouver neighborhood is affected by severe parking pressures from outside sources (e.g. schools, hospitals, SkyTrain stations and local businesses) a Resident Permit Parking (RPP) system is considered.

Zoning Limitations Associated with RPZ Zone Areas: Limited to residential areas.

Process to Establish or Modify an RPZ Permit Area: Residents work with the Engineering Department – Neighborhood Parking and Transportation Branch through a petition process to establish new or modify existing zones.

Eligibility and Limitations associated with RPZ Areas: There does not seem to be a limit on the number of permits per residential address. Parking is limited to the zone of issue.

Permit Cost: Depending on the zone, annual permits cost \$32 - \$63.

City: Vancouver, Washington

Purpose of RPZ Program: Vancouver, WA has an all day parking permit system for under-utilized on-street commercial parking spaces. The system is in the process of being phased out.

Tacoma Parking Presentation

Tacoma City Council Study Session

July 12, 2011



Downtown Pay Station System Report

Presentation Focus

1. Pay Station Implementation—Goals and Accomplishments
2. Parking Management Advisory Task Force Report (PMATF)
3. Pay Station System Operations and Enhancements
4. Upcoming Study Session items



Pioneering Implementation

- Transparency:
 - Recommendations made by a downtown stakeholder task force
- Procurement of “Turn Key” parking service provider
- Established a Parking Fund
- Extensive outreach and marketing
- Ongoing citizen participation
- All users pay



Unique Pay Station Program Parameters

- Purchase time for next day as soon as 8PM
- Maximum 100 foot walking distance
- Replaced all 15, 30, and 60 minute parking time limits with 2-hour signs.
- Strategic consolidation of Load Zones
- Gained over 200 new customer stalls
- “Start” button feature
- No changes for ADA patrons



Advisory Task Force Design/Decision Work List

- ✓ Paid parking boundary
- ✓ Days/hours of operation
- ✓ Buffer area boundary
- ✓ Time limits
- ✓ Exception parking spaces (i.e., short-term & load zones)
- ✓ Parking signage
- ✓ Pay station/display graphics
- ✓ Receipt design
- ✓ Parking fines/Ordinances changes



Advisory Task Force Design/Decision Work List



- ✓ Marketing and PSA's
- ✓ Enforcement plan/protocols
- ✓ Enforcement grace period
- ✓ Ambassadors/Customer service center
- ✓ Data collection and review: methodology and schedule
- ✓ Monitoring usage and system adjustments

Getting the Word Out Door by Door

- Contacted over 2000 individuals, businesses, media, employees, disabled persons, government agencies, schools, and government staff.
- Invited nearly 300 street level businesses to “House Party” events.
- Cityline interviews.



Outreach

- Met with businesses to determine placement of pay stations
- Made off-street parking information available on-line
- Coordinated with *Downtown on the Go* for alternate travel options
- Used on-street “ambassadors” to show patrons how to use pay stations
- Helped businesses spread the word to employees about the paid parking program
- Created a “How-to use” video and made it available on-line



PMATF Guiding Principles

Create a dynamic on-street parking system consistent with these principles:

1. Prioritize the customer/client/visitor as the desired on-street parker;
2. Ensure a 15 percent vacancy of on-street stalls (1 in 6 available per block); and
3. Is easy to understand for visitors and others new to the system.



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The Role of the PMATF

- Forum for stakeholder input
- Accountability to constituents
- Careful consideration of system changes (avoid unintended consequences).
- Pay station location and signage guidance
- Parking stall management (exception stalls, enforcement, and time limits).
- Extra eyes to keep system clean and operational



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Results and Feedback Monitoring

- Limit changes to allow system to stabilize
- Continue dialog with stakeholders
- Look for opportunities to integrate off-street parking resources
- Work with vendor to monitor:
 - Pay station usage
 - Parking demand
 - System maintenance



Customer Call Summary

	Jan	Feb	March	April	May	June	July
Abandon vehicle	1		1			1	
Buffer				1			
Court	1			1		1	
Disability parking		1	1			1	1
Enforcement			1	1			
Exempt vehicle/Free Parking	3			2		1	
Grace period/Hours of Operations	1	4					
License plate		2	1				
Liked the system		1					
Load/unload/Lost Ticket	3	4		1		2	
Media			2	1			
More than 2 hours		3	1	1			
Other permit parking/Other Cities	6	2				1	1
Outside of downtown	2	1		1	1	3	1
Parking exception request		1					
Pay station lighting/performance		1		1	1		
PDR/Info requests		1	1				
Poor signage	1	1	2	1			
Residential parking		1		2		1	
Saturday free			2	9		1	
Special vehicles / trailers / PODs		1	1			1	
SUB-TOTAL	18	24	13	22	2	13	3
GRAND TOTAL	95						

PMATF Communications

- Public service announcements
- Parking ambassadors at “go live”
- Windshield, store front, and property owner flyers, and mailers
- Social media communication protocols



DOWNTOWN PARKING CHANGES

There are changes coming to improve Tacoma's downtown parking system. For the past two years, a team of ambassadors have worked diligently to create a parking system that will be easy to use, take a customer first approach, and will open up 1 out of 2 stalls for customers.

This year, the Tacoma Parking Management Advisory Board (PMATF) was implemented. The board consists of ambassadors, business owners, property owners/managers, residents, restaurant operators, and others. Since April 2010, the PMATF has held monthly public meetings on the 3rd Thursday of each month to get community input. The parking system improvements are now being finalized for implementation.

The most visible change will be the addition of pay on street parking and removal of the 15-minute grace period. Other changes you will see include:

- Addition of a 15-minute grace period for 1st hour free with all 15-hour maximum rates.
- Removal of the 15-minute grace period for 1st hour free.
- Lower average compliance and parking of local times.
- Enhanced parking ambassadors and parking sign readability.
- Same use of signs space content that accept credit cards and coins.

A map on the reverse side of this notice shows the pay for parking and the locations of the pay stations. Another change you will see is a parking buffer area surrounding the downtown pay station locations. This area will be marked with new 10' radius no-parking area signs.

The activation date of the pay station system is Monday, December 25, 2011. The activation date of the new 15-hour rates will be when the new signs are installed.

The City will have trained pay station ambassadors on the street during the week of the system rollout to help users adjust to the new parking system. For more information on downtown parking changes and to submit your comments please visit www.tacomaparking.com or call (360) 571-3341.

Thank You
Tacoma Public Works

Downtown
TACOMA



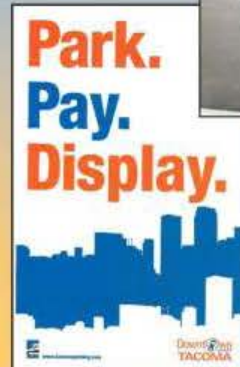
After Go Live

- Only 17 calls during the first week
- No mechanical or software failures
- Enforcement grace period
- Univ. of Washington, Tacoma Campus
 - Bus pass purchases increased ~200%
 - Off-street campus parking permit purchases increased to parking lot capacity



Thoughtful System Changes

- Enhanced usability by adding stickers
- Changed operation sequence
- Saturday Only Pilot-- Pay for 2 hrs and park all day
- Relocation of a few Pay Stations
- Park, Pay & Display signage



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Keys for Tacoma's Success

- Parking Fund
- Creation of parking system message that is delivered to the community by members of the community
- Communications/Outreach before and ongoing
- Experienced Implementation Team
- Stakeholder decision process



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System Reporting

Monthly Data

--Pay Station transactions and revenue

Pay Stations	Jan-Jun 2011
Number of Transactions	399,973
Actual Revenue	\$364,782.41
Projected Revenue	\$303,510.69

--Enforcement actions (citations and warnings)

Parking Enforcement	Citations	Warnings	Totals
Jan – June 2010	17,134	401	17,535
July – Dec. 2010	8,300	12,186	20,046
Jan – June 2011	20,207	7,824	28,024



System Reporting

Quarterly data

- Financial reports
- Court collections

Revenue	2011 1 st Quarter Actuals
Pay Stations	\$220,774.00
Enforcement (court)	\$364,542.00
Total	\$585,317.00
<u>Expense</u>	
Pay Stations (contract)	\$128,500.00
Enforcement	\$249,814.00
Admin	\$107,985.00
Court Costs	\$71,914.00
Total	\$558,213.00
Net Revenue	\$27,104



Parking System Quarterly Report

Annual reporting

- Parking occupancies
- Enforcement effectiveness
- Adjudication

Court	Overtake rate	ADA overtake rate	Fines Paid
2011 1 st Qtr	1.9%	41%	\$ 364,542
2011 2 ND Qtr	1.3%	34%	\$ 375,965



Future Discussion Items

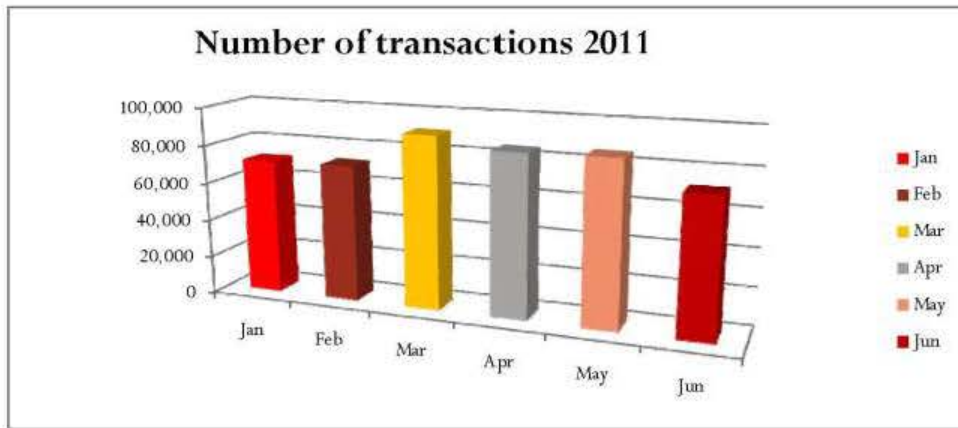
- New Handhelds
- Off Peak Parking Program
- System Expansion
- Opportunities to support Economic Development
- Strategic Parking System Plan
- Parking Fund Financials



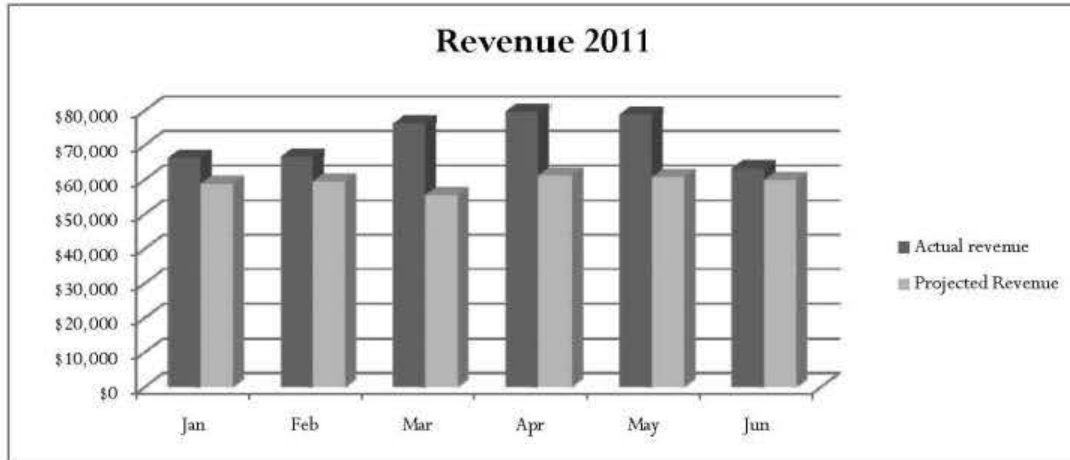
Tacoma Transaction Data

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This report is a monthly summary of Parking Services on street paystations and enforcement activities. These metrics measure key performance indicators including the number of transactions, revenue, and enforcement actions (citations and warnings.) This report is generated by Parking Services and will be updated monthly. More detailed financial information will be made available on a quarterly basis once accounting staff is in place.

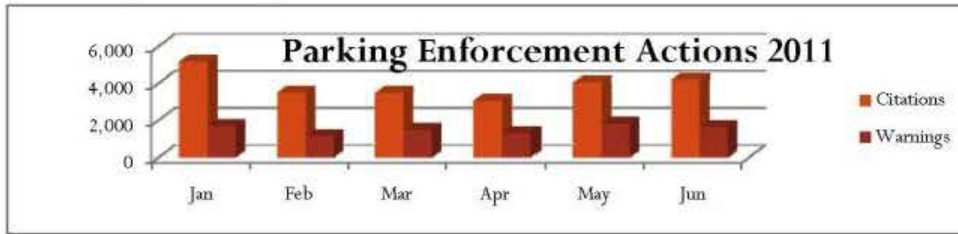


Paystations	Jan	Feb	Mar	Apr	May	Jun	total
Number of transactions	71,220	71,670	90,392	84,854	85,386	71,490	475,012



Pay Stations	Jan	Feb	Mar	Apr	May	Jun	total
Actual revenue	\$66,395	\$66,655	\$76,298	\$79,741	\$78,907	\$63,356	\$431,351
Projected Revenue	\$58,829	\$59,536	\$55,597	\$61,240	\$60,776	\$59,954	\$355,932

Tacoma Parking System Report June 2011



Parking Enforcement Actions	Jan	Feb	Mar	Apr	May	Jun	total
Citations	5,166	3,488	3,483	3,055	4,037	4,197	23,426
Warnings	1,671	1,145	1,467	1,294	1,819	1,637	9,033

Email to Tacomaparking.com

Tacomaparking.com	January	Feb	March	April	May	June	Totals
Aggressive enforcement			1	1		1	3
Disability parking		1	1			2	4
Exempt veh	3					2	5
Free parking				3		1	4
Grace period		4					4
License plate		2	1				3
Like the system		1					1
Load/unload	2	2					4
More than 2 hours		3	1	1			5
Other permit parking	5					2	7
Parking exception request		1					1
Pay station performance (Receipts, cards, etc.)	2	1		1	1	2	7
PDR/Info requests		1	1				2
Poor signage	1	1	2	1			5
Resident parking		1		2		3	6
Saturday Free			2	9		1	12
Special vehicles / trailers / PODs		1	1			1	3
Student				1			1
Unregulated parking			1	1			2
Rate					1		1
Online payment						1	1
Totals	13	19	11	20	2	16	81

Calls to ACS customer service call center

Call center (# on paystations)	January	Feb	March	April	May	June	Totals
Customer service issue "walked thru transaction")	9	1	17	12	19	10	68
meter issue	2	2	9	11	5	8	37
graffitti	5	7	4	1	0	0	17
Totals	16	10	30	24	24	18	122

APPENDIX C

Parking System Web Page Examples



- [HPA Homepage](#)
- [About the HPA](#)
- [HPA Staff & Board Members](#)
- [Meetings, Agendas, Minutes](#)
- [Frequently Asked Questions](#)
- [Directions](#)

[ABOUT THE HPA](#)

[PARKING INFO](#)

[PAY FINES](#)



The Hartford Parking Authority

Welcome to our website. The Hartford Parking Authority and its Board is dedicated to providing the citizens and visitors to Hartford with customer service second to none. In addition to answering any questions you might have about parking in the downtown region, we hope you will find this stop on the World Wide Web a resource to the many activities our great city has to offer.

Established in 1998 by the City Council, the HPA is responsible for creating, establishing, maintaining, and operating the City's dedicated parking facilities.



Hartford's Pay & Display Meters
The new Multi-Space Parking Meter Program is coming soon to a parking space near you. No cash? No problem! You can use your major credit card to quickly purchase 'meter' time. For details visit [Pay & Display](#) page.

Hartford Parking Authority
Administrative Office
155 Morgan Street
Hartford, CT 06103
Phone (860) 527-7275
Fax (860) 549-7275
Office Hours: 8:00 AM - 5:00 PM

Office of Parking Management
Customer Service Center
150 A Market Street
Hartford, CT 06103
Phone (860) 761-0004
Fax (860) 761-0092
Office Hours: 8:30 AM - 5:00 PM

Payment Center
709 Park Street
Hartford, CT 06106
Office Hours: 9:30 AM - 5:00 PM

City of Hartford
Crabon Hearing Office
150 B Market Street
Hartford, CT 06103
Phone (860) 757-0680

HPA Garages accept the following major credit cards:



Pay Parking Tickets
parkingticketpayment.com



Report a Broken Meter

Authority News



HPA Television Commercial
The HPA recently filmed a series of television commercials to introduce Hartford's new 'Pay & Display' Parking Meter Program. [Click Here to view commercial.](#)

Quick Links



City of Hartford Events Calendar
Comprehensive listing of events in the greater Hartford region.



greater hartford arts council

Greater Hartford Arts Council
The Greater Hartford Arts Council is a national leader in connecting the public to entertainment and arts in Hartford.



Park Downtown and Ride for Free!
The Hartford Star Shuttle is a free downtown Hartford shuttle that operates approximately every 12 minutes, Monday through Friday beginning at 7:00am to 11:00pm, and Saturday from 3:00pm to 11:00pm.


It's easy to catch the Star Shuttle. Look for this bus to find the free shuttle! For route and stop locations, [click here to print a copy of the Star Shuttle Route Map.](#)



Riverfront Recapture
Riverfront Recapture is the non-profit organization leading the effort to reconnect metropolitan Hartford with the Connecticut River.



City of Hartford Website



MIAMI PARKING AUTHORITY
2008 Parking Organization of the Year – International Parking Institute

Contact Us Home
Search

About MPA Customer Service Procurement Newsroom Employees Parking Locator

Find Parking

- By Neighborhood
- Garages and Lots
- On-Street Parking
- By Specific Address
- Monthly Parking
- Residential Parking
- Jackson Memorial Hospital


Pay Monthly Parking
Meter Rental Requests

Motorcycle Parking Program

Miami Heat Season Parking Pass

Miami Resident Vehicular Protection Program

E-Newsletter Subscription



Park & Pay by Phone
NOW AVAILABLE
Sign up for free
www.paybyphone.com or
866-990-PARK (7275)

Welcome!

[View Miami Parking Authority 2008 Annual Report](#)


Looking for Parking? Try the [Parking Locator](#)

Miami Parking Authority provides convenient, safe, and affordable parking throughout the City of Miami. With more than 30,000 parking spaces under management, you'll always [find a place to park](#) with us!

Parking is a vital component of our community's public infrastructure and economic health. As an agency of the City of Miami, our mission is to contribute to an efficient transportation system that serves the needs of the public and promotes economic development. [Learn more about us.](#)

MPA and the City of Miami offer complimentary, secure parking to City residents and employees during hurricane watches and warnings.

[Learn more.](#) [Download the application](#)



[Back to top](#)


About MPA Customer Service Procurement Newsroom Employees Parking Locator

- ### News Releases
- December 12, 2008 - MPA Offers Two Ways to Save on Parking During the Holidays
 - June 4, 2008 - Parking Organization of the Year



Related Links

Community Support




NBPA
Parking Authority

[Employment](#) [Contact Us](#)

[About Us](#)
[News/Announcements](#)
[About New Brunswick NJ](#)
[Parking Locator](#)
[Parking Info](#)
[Parking Permits](#)
[Online Payment](#)
[Public Bids](#)

Quick Links

- Telephone Numbers
- Juror Parking
- Parking for Disabled Persons
- Tickets & Towing
- Survey



parking in new brunswick


Login

Email Address


Password

Sign In


Forgot your password?
New to our site? Register here



Parking Locator



Pay Online
(Parking & Summons)




Apply For Parking

Welcome to New Brunswick Parking Authority

The NBPA is the organization for parking information in New Brunswick NJ. If you are seeking commuter parking for mass transit, monthly parking for your employees, parking validations for your customers, or revised parking regulations for your neighborhood, the NBPA is here to assist you. Read more about the NBPA here.


New Brunswick, New Jersey



New Brunswick NJ is a thriving city often referred to as a model for urban revitalization. The city bustles with theaters, restaurants, businesses, government offices, college students, residents and the wonderful energy of a downtown. Read more about New Brunswick, New Jersey.

ATTENTION RESIDENTS - ALTERNATE SIDE PARKING RESUMES APRIL 1ST

Tower ad space



NBPA
Parking Authority

[Employment](#) [Contact Us](#)

[About Us](#)
[News/Announcements](#)
[About New Brunswick NJ](#)
[Parking Locator](#)
[Parking Info](#)
[Parking Permits](#)
[Online Payment](#)
[Public Bids](#)

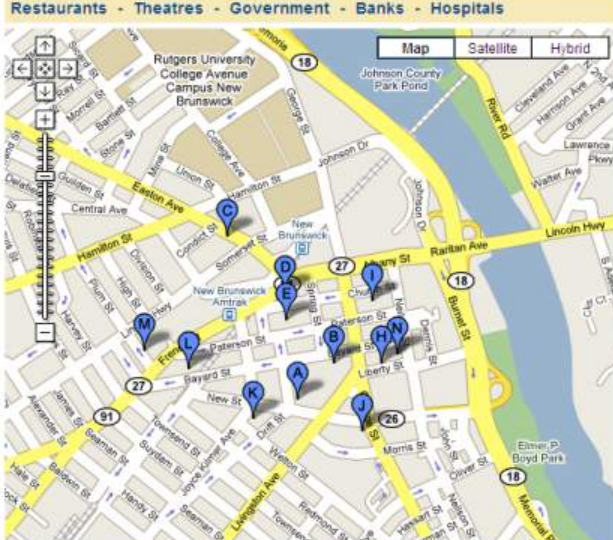
Parking Lots

- A. Civic Square Deck
- B. Cultural Center Lot
- C. Easton Avenue Lot
- D. Ferren Daily Deck
- E. Ferren Monthly Deck
- F. Jersey Ave. Park & Ride Daily Lot
- G. Jersey Ave. Park & Ride Quarterly Permit Lot
- H. Liberty Plaza Lot
- I. Lower Church Street Deck
- J. Morris Street Deck
- K. New Street Deck
- L. Paterson Street Deck
- M. Plum Street Garage
- N. Wolfson Deck

Parking Locator

Click one of the topics below (Restaurants, Theaters, etc) to find local businesses. The map will show businesses in red and local parking decks in blue.

Restaurants - Theatres - Government - Banks - Hospitals



Login

Email Address

Password

Sign In

Forgot your password?
New to our site? Register here

ATTENTION RESIDENTS - ALTERNATE SIDE PARKING RESUMES APRIL 1ST

Tower ad space

APPENDIX D
Parking Equipment Information Sheets

Parkeon Strada Pay Station

Strada pay station Technical Specs

Terminal Size:

62 in (h) x 11.4 in (w) x 10.8 in (d);

69 in (h) x 16.9 in (w) x 11.4 in (d) for Bill Note Accepting Model

Weight: 180 lbs (no bill acceptor) and 270 lbs (with bill acceptor)

Body Thickness: 11 gauge steel construction

Temperature Range: -22°F to 131°F; 97% RH

Printer: Thermal graphic; 6500 tickets per roll at standard size (2.36 x 2.76 in); Self adhesive paper accepted

Display: 160 x 80 pixels, 2 x 4 inch; 6 lines of text available; separate area for permanent display of time & date

Power Supply: Solar panels integrated into top of meter; AC mains option available

Power Consumption: Less than 3mA in standby mode

Payment Forms Accepted: Coins, tokens, bills, re-loadable and disposable smart cards, debit and credit cards

Coinbox Capacity: 3200 quarters; 164 ounces; 6.7in (h) x 5.7 in (w) x 11.4 in (d); empty 7.1 lbs, full 55 lbs

Bill Stacker: 500 bill capacity ; 7.09 in (h) x 3.94 in (w) x 5.51 in (d)

Housing Colors: Jet Black, Titanium Gray, Magic Blue, Moss Green; Custom Colors are also available

Digital Luke II Pay Station



LUKE II Specifications

- Cabinet: 12-gauge zinc-coated cold rolled steel. Stainless steel optional
- Payment Options: Coins, bills, credit cards, contactless payment, smart cards, value cards, campus cards, coupons, Pay-by-Phone
- Card Reader: Cards are not ingested – no moving parts. Reads Tracks 1, 2, and 3 of all magnetic stripe cards conforming to ISO 7810 and 7811. Reads and writes to chip-based smart cards conforming to ISO 7810 and 7816
- Bill Stacker: 1,000-bill capacity
- Printer: 2" receipt width
- Display: Color backlit LCD with 640 x 480 resolution
- Keypad: 12- or 38-key alphanumeric with tactile buttons
- Locks: Can be re-keyed twice without removal of lock cylinder. Electronic locks optional
- Access: Separate doors for maintenance and collections
- Communications Options: GSM/GPRS, CDMA, 802.11b/g Wi-Fi, Metro Scale Wi-Fi , Ethernet
- Environmental Requirements: Ambient range: -40°C to +60°C (-40°F to +140°F)* Relative humidity: up to 95%
- Power: AC 120 V or 240 V, 60 Hz for charging battery or 20 W solar panel
- Operational Modes: Pay-and-Display, Pay-by-Space, Pay-by-License Plate
- Multilingual Support: Up to four languages using roman or non-roman characters
- Audible Alarm: Senses shock and vibration
- Color: Silver on gray. Custom colors optional
- Standards: UL/CSA approved, ADA compliant, PCI compliant, PA-DSS validated

Cale MP4 Compact Pay Station

MP 104 Compact

The MP 104 Compact has all the features of the MP 104 basic terminal but in a slim design. The terminal is available in a wide range of colors and will adapt to any urban surrounding. The terminal is highly modular in terms of functions and payment methods, which will enable it to grow with your future needs.

Standard features

- Electronic programmable coin verifier and coin shutter.
- Intelligent, auto-calibrating antipin module that protects the coin verifier.
- Motor driven pre-collection unit with a volume of approximately 100 coins.
- High-security cash protection.
- Self-locking coin box.
- Secure, flexible lock system with easily exchangeable locks.
- Thermal printer with high-quality printout.
- Ticket with 75 or 100 mm length and 57 mm width.
- Tickets on roll (4500 pcs) or Z-folded (9000 pcs).
- Alphanumeric display, 2 lines of 20 characters, with automatic back-light adjustment.
- LED and LCD indication on the display for information about servicing needs.
- Customer-specific data loaded via modem or PC card (PCMCIA). No EPROM change required.
- Cabinet and base made of stainless steel painted in a standard RAL color.
- Power supply from battery only or street light.

Options

- Slit or insertion type card reader for credit cards with magnetic stripe.
- Black list handling of up to 800,000 credit cards.
- Chip card reader for paying with chip cards (including electronic purse).
- Pay and Display or Pay by Space function.
- Dollar bill acceptance.
- Remote enforcement with Pay by Space.
- Control of external equipment such as gates and electric power points (sockets).
- Communication between terminals in a local network and between the network (or standalone terminals) and Cale WebOffice.
- Cabinet and base painted with the desired non standard RAL color.
- Power from solar cell panel only or in combination with mains.

MacKay Guardian Multi Elite Pay Station



MacKay
GUARDIAN™
Multi Elite



MacKay Guardian™ Multi Elite

Key features:

- High strength stainless steel keeps it secure and rust free.
- High-security, large capacity, stainless steel cash box.
- Microsoft® Windows® CE operating system, combined with a 32-Bit ARM® Processor,
- 32 MB of SDRAM and 32 MB of Flash memory.
- Flexible, modular design that is easy to upgrade, service and maintain.
- Powerful off-site monitoring capabilities by adding a communications kit and Sentinel™ Meter Management System. Monitor your equipment remotely, generate reports, and receive alerts, no matter where you are.
- Comprehensive and easy-to-use configuration menus.
- ADA Compliant.
- Features a color VGA Liquid Crystal Display with back light, capable of displaying graphics.
- English? Español? Français? The multi-language capability allows users to select the language of their choice to carry out transactions.
- Offer and users security, convenience, and reject fraudulent payment. Use MacKay's On-line Real-time Credit Card Approval feature utilizing secure PCI compliant electronic payment processes.
- MacKay Meters backs its product lines with a solid warranty based on the confidence in the quality of its products.

<over for specifications>

Colour Display

Solar Option

Illuminated LED Accept & Cancel

www.mackaymeters.com



MacKay Guardian X Model Single Space Meter with MKH Housing



MKH 4500

MacKay
housing



MKH 4500
Heavy Duty Housing

- Featuring our top-of-the-line vandal-resistant housing completely constructed of durable ductile iron with special tapered design for increased strength and security. The MKH 4500 is a large-vault, high security meter housing, precision-machined and designed for increased security.
- The MKH 4500 features our largest vault in a tough wrinkle finish with an extended coin can.
- Compatible with MacKay Meters' industry-leading electronic mechanisms and competitive products.
- MacKay Meters backs its product lines with a solid warranty based on confidence in the quality of its products.
- All MacKay housings are distinguished by their "hex" shaped top.
- Manufactured under ISO 9001:2000 certified quality processes.

ISO 9001:2000



Certificate No. 002057

www.jjmackay.com



MACKAY METERS™

POM APM-E Single Space Meter

Mechanisms

Internal Mechanisms to Fit POM or "Other Brand" Housings

Base model accepts coins only, with large 1"x3" LCD rear enforcement signal, with or without blinking LEDs for night enforcement. Mechanism fits competitor housings. Low-power, only draws avg. 40-60 μ A to maximize battery life. **NEW STANDARD FEATURES:** Plug-in, replaceable displays, and jam-resistant (toothless, no moving parts) coin chute.

Options:

- High-visibility rotary display, visible up to 80 feet away for easier drive-by enforcement.
- [Smartcard](#) reader accepts disposable cards, reprogrammable electronic purse cards, or secure EFT smartcards.
- Backlight for digital display improves visibility in low-light conditions.
- Free-time button, press for free time if the meter is at 00:00. For additional time, payment must be inserted.
- [SmartLock](#) (mechanism integrated with housing; coin collection requires use of authorized smart card or handheld).
- NEW! [Parktel credit card module](#).

				
Base model APM-E	Standard rear LCD display.	High-visibility rotary signal	High-visibility display and card reader options shown	Free-time button option (button can also be placed next to coin or card slot)

Housings

Options for Every Environment and Budget

Base model, all-zinc housing features 4-corner locking dome that can be removed and hung on the side of the housing during on-street repairs. Genuine Lexan® dome window is UV stabilized to prevent yellowing, features flat-face to reduce glare on digital display. Expanded capacity vault features rear-loaded lock, tapered base, and patented Gripper wedges to discourage break-in or forced removal from the post. Gray powder paint finish withstands ASTM B117 1000-hour salt-spray test.

Options:

- Iron Tamperproof vault has rectangular door that "falls" open when unlocked, which reduces key wear. Door can be easily removed without tools when open, facilitating quick repair or replacement. Expanded capacity, coin box holds \$65 in US quarters.
- Iron Magnum vault has similar door style as Tamperproof, but coin box holds \$118 in US quarters. Recommended for high-rate areas and multi-space APM meters.
- Iron 95 style vault has round door, integrates with existing competitor systems. Expanded capacity, coin box holds \$65 in US quarters.
- Twin converter available for Tamperproof, 95, or Magnum vault to achieve a twin meter configuration (two heads emptying into one vault). See [APM-2X](#) for a more economical and jam-resistant option.
- Iron upper housing for maximum protection to inner mechanism from vandals.
- (All housing options offer a variety of high security and changeable locks, and all single housings can be fitted with the [POM SmartLock system](#).)
- A mini-vault post attachment is available for card-only meters.

				
Base model zinc housing; iron Tamperproof style vault also similar.	Magnum vault shown with iron upper housing.	Iron upper housing and 95-style vault version.	Twin mounting accomplished with iron adapter. Aluminum adapter also available.	Mini-vault for card-only meter attachment.