

SECTION I – EXISTING CONDITIONS

CITY OF MILWAUKEE
DEPARTMENT OF CITY DEVELOPMENT

PREPARED BY:



**LANSING
MELBOURNE
GROUP**

SECTION II – FUTURE CONDITIONS
SECTION III – POLICY MAKING
PRINTED UNDER SEPARATE COVER

DECEMBER 2010

TABLE OF CONTENTS	PAGE
I. OVERVIEW	2
II. EXISTING CONDITIONS.....	2
Executive Summary.....	2
Introduction.....	3
Parking Analysis Study Area	3
Priority Subareas	5
General Description of the Physical Parking System	6
Parking Database	7
Parking Supply and Use	7
Study Area.....	8
CBD East.....	8
CBD West.....	8
District by Type of Parking	8
On-Street Parking.....	10
CBD East.....	10
CBD West.....	10
Off-Street Parking System.....	10
ENDNOTES.....	A-3

TABLES.....	PAGE
Table 1 - Study Area Parking Summary.....	8
Table 2 – District Parking by Type	9
Table 3 - Detailed District Parking by Type	11
Table 4 - City Owned Public Structures	12
Appendix Table 1.....	A-1

FIGURES.....	PAGE
Figure 1 - Study Area Districts	4
Figure 2 - Study Area District Block Numbers.....	5
Figure 3 - District High Priority Areas	6

I. OVERVIEW

A Plan for the City of Milwaukee's Downtown was first completed in 1999, with the purpose of serving as a policy guide for physical development in this area of the city. Over the past eight years, the recommendations of the existing plan have been implemented with great success. Community members and elected officials from the Downtown have asked the City to create an Updated Downtown Plan to build on the momentum created to date. As part of the Downtown Plan Update process, the City retained Lansing Melbourne Group LLC (LMG) to provide an analysis of parking within the Greater Downtown Area.

In order to develop recommendations, a thorough understanding of the existing parking supply and demand characteristics is necessary. Once the existing usage is identified, further evaluations and recommendations can be made relative to zoning issues, expansion opportunities and rate structure. This section provides a summary of the existing conditions supply and demand for the study area.

II. EXISTING CONDITIONS

EXECUTIVE SUMMARY

The parking supply in the downtown Milwaukee study area is generally sufficient in meeting the parking demands generated during the peak weekday time period for the current land uses located in the downtown. This finding is based on current conditions in the downtown, including current trip levels, mode split, auto-occupancy, parking enforcement levels, and parking management policies. The focus of this section of the report is more to set a baseline for future conditions analyses relative to proposed development and future parking needs.

Many times, adequate parking can be obtained by modifying the location of, and ratio between, short-term parking and long-term parking. The addition of on-street parking may also help to provide more short-term parking spaces, similar to the addition of angled parking on Michigan Street through the removal of the center left turn lane. These methods have already been implemented by the City over the last decade to much success. In addition, changes in enforcement policies, providing better options for off-street (employee) parking and more accessible on-street (short-term) parking has increased revenues significantly. Not only is the parking system financially self-supporting, there appears to be an adequate number of parking spaces to meet existing land use needs and the rates are affordable, if not low, relative to cities of similar size and composition.

Over the last decade or so, the City of Milwaukee's parking system has been an example of successful growth and management through public/private partnerships, use of state-of-the-art technology and by pursuing a philosophy that has leveraged parking as an economic development tool with a great deal of success.

However, the next level of downtown growth and parking needs is upon the City. Downtown development is as dynamic today as ever amid private/public partnerships, economic downturns, uncertainty of oil and gas prices, and less than adequate transit options. The ability to plan and support successful development must be rooted in an implementation and financial plan that can react to changes in development trends and needs. A critical component of future development needs is the high cost of parking, not only how much parking to build, but who builds it, pays for it, uses it and operates it.

The next phase of the study will analyze proposed future land use scenarios and parking needs relative to the existing parking supply and evaluate expansion opportunities, where

warranted.

INTRODUCTION

During late summer 2008, the Milwaukee Department of Public Works (DPW) conducted field studies to determine the on- and off-street parking inventory and occupancy during typical weekday peak periods for:

- Off-street public and private parking structures;
- Off-street public and private parking lots; and
- On-street parking spaces.

In addition, the data for off-street parking facilities is stratified by use between general public use (unreserved) and restricted parking use (reserved). The data for the on-street parking supply identifies both metered and unmetered spaces and occupancy.

As mentioned, the data was collected and compiled by the DPW during late summer of 2008. The parking data was collected over a much broader geographic area than the Study Area for this Parking Study. The larger parking data collection area covers the areas bounded generally by Lyon Street east of the Milwaukee River and the Schlitz Park area to the north and northwest, Lake Michigan to the east, the Marquette University area to the west and the Marquette interchange and historic third Ward to the south. The geographic area identified for the downtown Parking Study is described in the following section.

PARKING ANALYSIS STUDY AREA

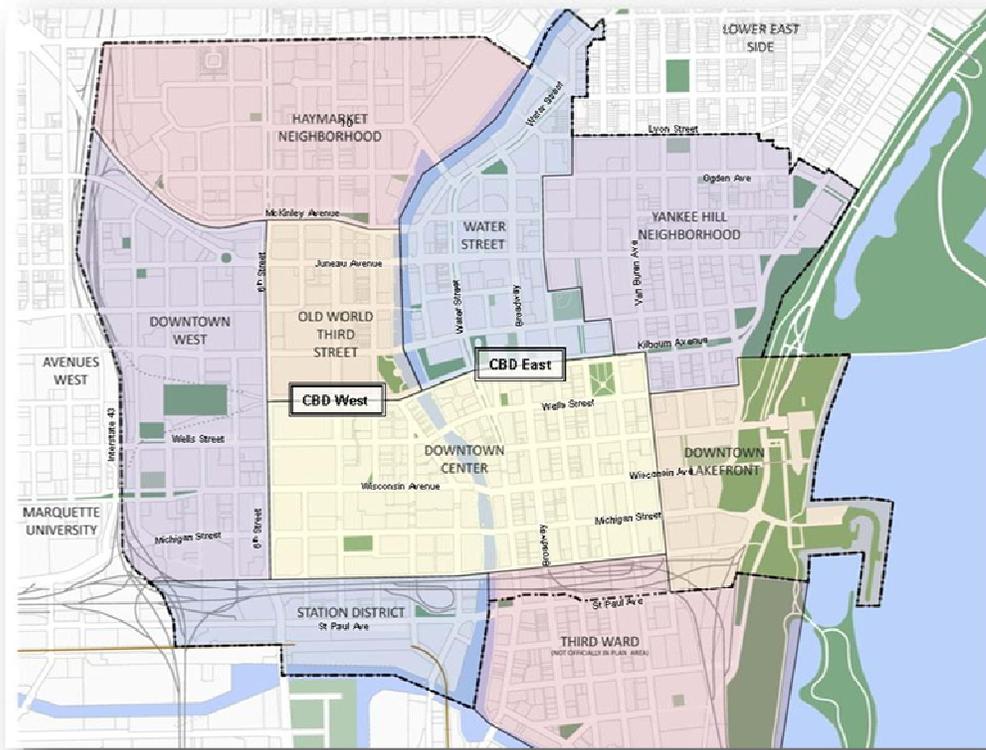
The study area created for the parking analysis was based the City's Downtown Plan Districts¹. The City defined a more compact study area for the Parking Study to expedite the development of recommendations to be used in conjunction with the other planning studies that are underway. The revised study area, referred to hereafter as the "Study Area", is bordered generally by Lyon Street, the Milwaukee River and McKinley Street on the north, Prospect Avenue and Lincoln Memorial Drive on the east, St. Paul Avenue on the south and Interstate 43 on the west as shown in Figure 1 and in aerial photography in Figure 2.

As noted in Figure 1, the Study Area is comprised of two larger geographic sections, the Central Business District East (CBD East) area comprised of the portion of the CBD located east of the Milwaukee River and the Central Business District West (CBD West) area comprised of the portion of the CBD located west of the Milwaukee River.

The study area created for the parking analysis was based the City's Downtown Plan Districts. The City defined a more compact study area for this Parking Study to expedite the development of recommendations to be used in conjunction with the other planning studies that are underway. The revised study area, referred to hereafter as the "Study Area," is bordered generally by Lyon Street, the Milwaukee River and McKinley Street on the north, Prospect Avenue and Lincoln Memorial Drive on the east, St. Paul Avenue on the south and Interstate 43 on the west as shown above.

As noted above, the Study Area is comprised of two larger geographic sections, the Central Business District East (CBD East) area comprised of the portion of the CBD located east of the Milwaukee River and the Central Business District West (CBD West) area comprised of the portion of the CBD located west of the Milwaukee River.

Figure 1 - Study Area Districts



The CBD East and CBD West were further subdivided into 13 districts as listed below and shown in Figure 2. The CBD West geographic area is bounded by the Milwaukee River (east side), McKinley Street (north side), St. Paul Avenue (south side) and I-43 (east side).

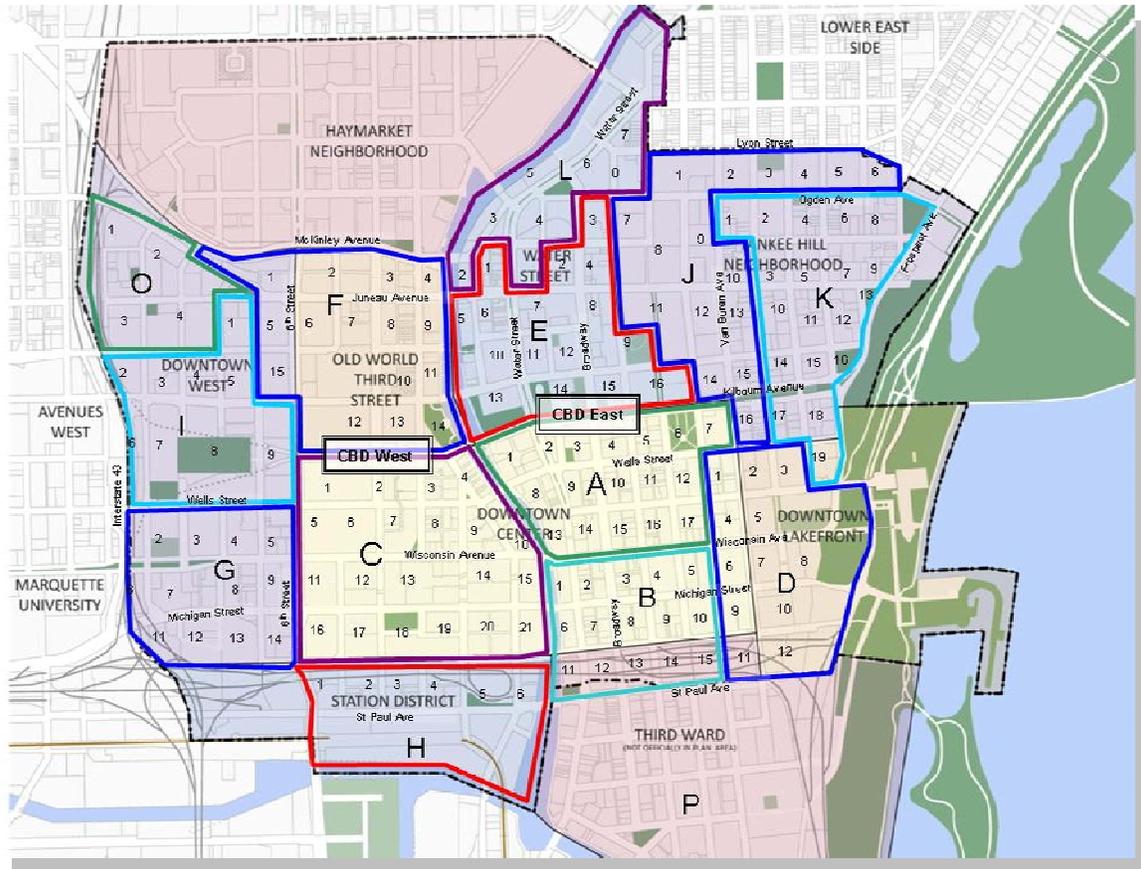
1. District C is referred to as the West Town/Grand Avenue District;
2. District F is referred to as the West Town/Old World 3rd District;
3. District G is referred to as the Library District;
4. District H is referred to as the Station District;
5. District I is referred to as the MacArthur Square District; and
6. District O is referred to as the Brewery (Pabst) District.

The CBD East geographic area is bounded by the Milwaukee River (west side), Lyon Street (north side), St. Paul Avenue (south side) and Prospect Avenue/Lincoln Memorial Drive (east side).

1. District A is referred to as the East Town North District;
2. District B is referred to as the East Town South District;
3. District D is referred to as the Lakefront District;
4. District E is referred to as the Water Street District;
5. District J is referred to as the Yankee Hill West District;

6. District K is referred to as the Yankee Hill East District; and
7. District L is referred to as the Park East/Upper Water Street District.

Figure 2 - Study Area District Block Numbers

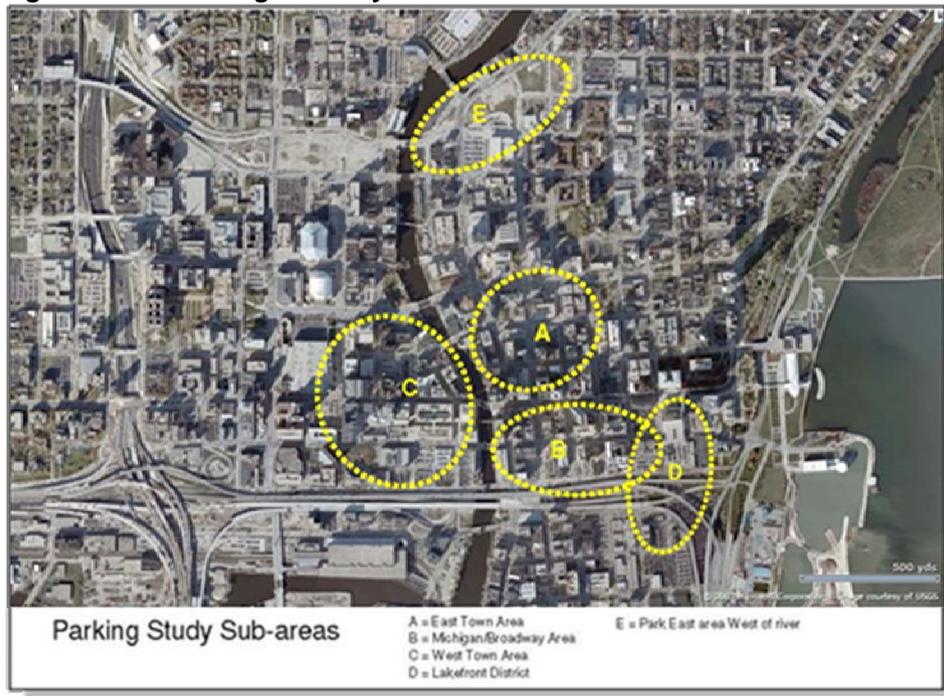


Priority Subareas

In addition, for purposes of this study, the City identified eight (8) geographic areas within the Study Area that represent “priorities” and are referred to hereafter as “Priority Areas” (PA) and will be addressed in the Future Conditions summary report.

- Priority Area A - Michigan/Broadway Area;
- Priority Area B - Lakefront Office Area;
- Priority Area C - East Town Area;
- Priority Area D - West Town Retail Area;
- Priority Area E - Park East west of River;
- Priority Area F - Park East east of the River;
- Priority Area G - MacArthur Square Area; and
- Priority Area H - Station Area.

Figure 3 - District High Priority Areas



The areas within the PAs are the focus of Section II - Future Conditions study regarding potential new development and parking needs. Over the last decade or so, the City of Milwaukee's parking system has been an example of successful growth and management through public/private partnerships, use of state-of-the-art technology and by pursuing a philosophy that has leveraged parking as an economic development tool with a great deal of success. The PAs are listed above and depicted in Figure 1. The areas within the PAs will be the focus of the analyses on Future Conditions regarding potential new development and parking needs.

GENERAL DESCRIPTION OF THE PHYSICAL PARKING SYSTEM

On- and off-street parking facilities comprise the current parking system. The on-street parking system is in part, managed by a private operator under contract to the City, and consists of two categories: 1) unmetered spaces; and 2) metered spaces. The off-street parking system is comprised of the following six categories of facilities:

1. City-owned ramps and lots for general public use;
2. Privately-owned ramps for general public use;
3. Privately-owned lots for general public use;
4. City-owned ramps and lots with restricted parking;
5. Privately owned parking ramps with restricted parking; and
6. Privately owned lots with restricted parking.

Restricted parking refers to parking that is permit parking, reserved, valet, employee, or parking spaces that are not generally available to the public.

Parking Database

The City of Milwaukee maintains a parking database that is updated on a regular semi-annual basis. The database graphically depicts the location and number of spaces for private and public off-street surface lots and ramps and on-street spaces. During the summer of 2008, Milwaukee DPW conducted a comprehensive parking occupancy study. The study was conducted during typical weekday periods, generally between the hours of 10:00 a.m. and 3:00 p.m. when the demand for weekday parking is typically highest. This information was linked to the inventory database and documented in an excel spreadsheet. The data is presented in the following sections of this report.

Parking Supply and Use

The level of use in a parking system is based on the percentage of vacant (or occupied) parking spaces during the peak time period of a typical weekday. A parking system used to full capacity is inefficient because it becomes too difficult for arriving parkers to find the few remaining spaces. Application of “best practices” results in the ability for arriving parkers to locate available parking with minimal effort and energy consumption possible, particularly for short-term parkers.

Common downtown (typical) target occupancy rates are:

- 90-95 percent for long-term parkers (employees, infrequent visitors, conference attendees); and
- 85-90 percent for short-term parkers (core patrons, shoppers, visitors).

However, target occupancies of about 85 to 90 percent are preferred if the financial performance of the system can support this level of service.

If the parking system financial basis is strong enough to support a lower occupancy rate (by providing more parking), particularly for visitors, than a lower target vacancy rate is considered more user-friendly and convenient for visitors, particularly when attracting reluctant or new visitors to the downtown. It is common for specific areas within a downtown to experience intense parking demand pressures that exceed the available supply in that area. As a result, occupancy rates in these areas may exceed 100 percent indicating that illegal parking is occurring or parking demand is being serviced by facilities outside that specific district. Table 1 represents the Study Area depicted in Figures 1 and 2.

Table 1 - Study Area Parking Summary

District	A	B	C	D	E	F	G	H	I	J	K	L	O	Total
Public Use - Off-street (Public and Private Ownership)														
Spaces	5,731	2,444	7,080	4,313	2,564	2,391	1,081	194	2,382	-	-	265	-	28,445
Occupied	4,769	1,767	3,842	3,352	1,536	829	818	149	1,542	-	-	82	-	18,686
% Occupied	83%	72%	54%	78%	60%	35%	76%	77%	65%	N/A	N/A	31%	N/A	66%
Restricted Use - Off-street (Public and Private Ownership)														
Spaces	1,043	696	1,936	2,255	1,590	594	1,261	101	1,082	2,417	1,705	444	105	15,229
Occupied	659	569	1,400	1,792	1,152	392	833	60	696	1,365	1,064	387	60	10,429
% Occupied	63%	82%	72%	79%	72%	66%	66%	59%	64%	56%	62%	87%	57%	68%
On-street (Public Ownership)														
Spaces	452	231	546	343	563	272	338	90	254	773	726	303	102	4,993
Occupied	391	186	374	256	333	109	232	90	198	498	600	264	64	3,595
% Occupied	87%	81%	68%	75%	59%	40%	69%	100%	78%	64%	83%	87%	63%	72%
Total Spaces	7,226	3,371	9,562	6,911	4,717	3,257	2,680	385	3,718	3,190	2,431	1,012	207	48,667
Occupied	5,819	2,522	5,616	5,400	3,021	1,330	1,883	299	2,436	1,863	1,664	733	124	32,710
% Occupied	81%	75%	59%	78%	64%	41%	70%	78%	66%	58%	68%	72%	60%	67%

Study Area

A total of 48,667 parking spaces were identified in the Study Area and are comprised of approximately 28,445 off-street public parking spaces, 15,229 off-street restricted parking spaces and 4,993 on-street spaces.

The overall occupancy rate was 67 percent (32,710 parkers) comprised of an occupancy rate of 66 percent (18,686 parkers) for off-street public spaces, 68 percent (10,429 parkers) for restricted off-street spaces and about 72 percent (3,595 parkers) for on-street parking during the peak weekday time period.

CBD East

The area east of the River contains a total of 28,858 parking spaces comprised of approximately 15,317 off-street public parking spaces, 10,150 off-street restricted parking spaces and 3,391 on-street spaces.

The overall occupancy rate was 73 percent (21,022 parkers) comprised of an occupancy rate of 75 percent (11,506 parkers) for off-street public spaces, 69 percent (6,988 parkers) for restricted off-street spaces and about 75 percent (2,528 parkers) for on-street parking during the peak weekday time period.

CBD West

The area west of the River contains a total of 19,809 parking spaces comprised of approximately 13,128 off-street public parking spaces, 5,079 off-street restricted parking spaces and 1,602 on-street spaces.

The overall occupancy rate was 59 percent (11,688 parkers) comprised of an occupancy rate of 55 percent (7,180 parkers) for off-street public spaces, 68 percent (3,441 parkers) for restricted off-street spaces and about 67 percent (1,067 parkers) for on-street parking during the peak weekday time period.

District by Type of Parking

As shown in Table 2, District C – West Town/Grand Avenue has the largest parking supply of the 13 subareas with 9,562 parking spaces. Although the occupancy rate is the 11th lowest rate (at 59 percent), the West Town/Grand Avenue District has the

second highest demand at 5,616 parked vehicles. Only District A – East Town North had a higher occupancy count at 5,819 spaces, as well as the highest occupancy rate, at 81 percent.

Table 2 – District Parking by Type

Dist.	Total Off-Street Public Parking			Total Off-Street Restricted Parking			Total Off-Street Parking			Total On-Street Parking			Total On- and Off-Street Parking		
	# of Spcs	Occup Spcs	% Occup	# of Spcs	Occup Spcs	% Occup	# of Spcs	Occup Spcs	% Occup	# of Spcs	Occup Spcs	% Occup	# of Spcs	Occup Spcs	% Occup
A	5,731	4,769	83%	1,043	659	63%	6,774	5,428	80%	452	391	87%	7,226	5,819	81%
B	2,444	1,767	72%	696	569	82%	3,140	2,336	74%	231	186	81%	3,371	2,522	75%
D	4,313	3,352	78%	2,255	1,792	79%	6,568	5,144	78%	343	256	75%	6,911	5,400	78%
E	2,564	1,536	60%	1,590	1,152	72%	4,154	2,688	65%	563	333	59%	4,717	3,021	64%
J	-	-	N/A	2,417	1,365	56%	2,417	1,365	56%	773	498	64%	3,190	1,863	58%
K	-	-	N/A	1,705	1,064	62%	1,705	1,064	62%	726	600	83%	2,431	1,664	68%
L	265	82	31%	444	387	87%	709	469	66%	303	264	87%	1,012	733	72%
CBD East	15,317	11,506	75%	10,150	6,988	69%	25,467	18,494	73%	3,391	2,528	75%	28,858	21,022	73%
C	7,080	3,842	54%	1,936	1,400	72%	9,016	5,242	58%	546	374	68%	9,562	5,616	59%
F	2,391	829	35%	594	392	66%	2,985	1,221	41%	272	109	40%	3,257	1,330	41%
G	1,081	818	76%	1,261	833	66%	2,342	1,651	70%	338	232	69%	2,680	1,883	70%
H	194	149	77%	101	60	59%	295	209	71%	90	90	100%	385	299	78%
I	2,382	1,542	65%	1,082	696	64%	3,464	2,238	65%	254	198	78%	3,718	2,436	66%
O	-	-	N/A	105	60	57%	105	60	57%	102	64	63%	207	124	60%
CBD West	13,128	7,180	55%	5,079	3,441	68%	18,207	10,621	58%	1,602	1,067	67%	19,809	11,688	59%
Total	28,445	18,686	66%	15,229	10,429	68%	43,674	29,115	67%	4,993	3,595	72%	48,667	32,710	67%

Comparing the data in Table 2 to the parking vacancy goals listed earlier (90-95 percent for employees and 80-85 percent occupancy for visitors, shoppers), and applying a planning factor of 5 percent to account for evaluating potential for growth and the standouts include:

District A – East Town North

- Off-street public parking - 83 percent;
- On-street spaces – 87 percent; and
- Total spaces – 81 percent.

District B – East Town South

- Off-street restricted parking - 82 percent;
- On-street spaces – 81 percent; and
- Total spaces – 75 percent.

District D - Lakefront

- Off-street public parking - 78 percent;
- Off-street restricted parking - 79 percent;
- On-street spaces – 75 percent; and
- Total spaces – 78 percent.

District G – West Town Library

- Off-street public parking - 76 percent.

District H - Station

- Off-street public parking - 78 percent; and
- On-street spaces – 75 percent.

District K – Yankee Hill East

- On-street spaces – 83 percent.

District L – Park East/Upper Water Street

- Off-street restricted parking - 87 percent; and
- On-street spaces – 87 percent.

The areas listed above are either exceeding the target occupancy, within the target occupancy or approaching the target occupancy levels.

On-Street Parking

As mentioned previously, all on-street parking spaces are controlled by the City, although the City has contracted with a private operator for operation of much of the on-street parking.

CBD East

As shown in Table 2, the majority of on-street parking is located in the CBD East (3,391 of 4,493 spaces or 68 percent of the supply). Four of the seven districts have occupancies exceeding 80 percent, which indicates high levels of usage and the need to evaluate the expansion of visitor parking if land use intensity is increased in these districts. The other three districts have occupancy rates ranging from 64 to 75 percent indicating that excess on-street parking is available. The overall occupancy rate of 75 percent, which indicates that sufficient on-street parking exists east of the River, but may not be sufficient in several of the districts that currently generate demand for on-street parking. In total, the CBD East generates a peak hour demand of over 2,500 parkers in on-street spaces compared to less than 1,100 spaces in the CBD West.

CBD West

Also listed in Table 2 is the summary data for the CBD West on-street parking supply which is 1,602 spaces or about 32 percent of the Study Area on-street parking supply. Two of the six districts have occupancy rates near or within the target occupancy rates, District H – Station (100 percent), and District I – MacArthur Square (78 percent). Both of these districts have high demand for short-term parking for visitors associated with governmental functions.

Off-Street Parking System

As shown in Table 3, the study area includes 43,674 off-street, public and privately owned parking spaces in structures and lots. Of the total, approximately 28,445 spaces (65 percent) are available for general public use and 15,229 spaces (35 percent) are designated as restricted use parking. About 85 percent of the general public use parking supply is located in structures and about 15 percent of the supply located in surface lots. The restricted use parking supply is split 50/50 between parking structures and lots.

The total off-street occupancy rate was measured at 67 percent with the public parking occupancy rate at 66 percent and the restricted parking occupancy rate at 68 percent. The following summarizes the use and supply of off-street parking in each of the five study areas.

CBD East

As shown in Tables 2 and 3 as well as in Appendix Table 1, the majority of off-street public and restricted parking is located in the CBD East with 25,467 spaces representing 58 percent of the off-street parking supply. The overall occupancy rate is 73 percent with public use parking at 75 percent and restricted use parking at 69 percent occupancy.

Table 3 - Detailed District Parking by Type

District	A	B	C	D	E	F	G	H	I	J	K	L	O	Total
Off-Street Parking - Public Use														
Structures														
Spaces	5,538	2,112	6,379	2,472	2,564	1,737	985	-	2,289	-	-	-	-	24,076
Occupied	4,633	1,488	3,465	1,816	1,536	603	775	-	1,480	-	-	-	-	15,796
% Occupied	84%	70%	54%	73%	60%	35%	79%	N/A	65%	N/A	N/A	N/A	N/A	66%
Lots														
Spaces	193	332	701	1,841	-	654	96	194	93	-	-	265	-	4,369
Occupied	136	279	377	1,536	-	226	43	149	62	-	-	82	-	2,890
% Occupied	70%	84%	54%	83%	N/A	35%	45%	77%	67%	N/A	N/A	31%	N/A	66%
Structures and Lots														
Spaces	5,731	2,444	7,080	4,313	2,564	2,391	1,081	194	2,382	-	-	265	-	28,445
Occupied	4,769	1,767	3,842	3,352	1,536	829	818	149	1,542	-	-	82	-	18,686
% Occupied	83%	72%	54%	78%	60%	35%	76%	77%	65%	N/A	N/A	31%	N/A	66%
Off-Street Parking - Restricted Use														
Structures														
Spaces	842	523	1,021	1,572	903	-	359	-	559	1,365	491	-	-	7,635
Occupied	544	446	735	1,304	760	-	224	-	300	859	350	-	-	5,522
% Occupied	65%	85%	72%	83%	84%	N/A	62%	N/A	54%	63%	71%	N/A	N/A	72%
Lots														
Spaces	201	173	915	683	687	594	902	101	523	1,052	1,214	444	105	7,594
Occupied	115	123	665	488	392	392	609	60	396	506	714	387	60	4,907
% Occupied	57%	71%	73%	71%	57%	66%	68%	59%	76%	48%	59%	87%	57%	65%
Structures and Lots														
Spaces	1,043	696	1,936	2,255	1,590	594	1,261	101	1,082	2,417	1,705	444	105	15,229
Occupied	659	569	1,400	1,792	1,152	392	833	60	696	1,365	1,064	387	60	10,429
% Occupied	63%	82%	72%	79%	72%	66%	66%	59%	64%	56%	62%	87%	57%	68%
Off-Street Parking - Public and Restricted Use														
Structures														
Spaces	6,380	2,635	7,400	4,044	3,467	1,737	1,344	-	2,848	1,365	491	-	-	31,711
Occupied	5,177	1,934	4,200	3,120	2,296	603	999	-	1,780	859	350	-	-	21,318
% Occupied	81%	73%	57%	77%	66%	35%	74%	N/A	63%	63%	71%	N/A	N/A	67%
Lots														
Spaces	394	505	1,616	2,524	687	1,248	998	295	616	1,052	1,214	709	105	11,963
Occupied	251	402	1,042	2,024	392	618	652	209	458	506	714	469	60	7,797
% Occupied	64%	80%	64%	80%	57%	50%	65%	71%	74%	48%	59%	66%	57%	65%
Structures and Lots														
Spaces	6,774	3,140	9,016	6,568	4,154	2,985	2,342	295	3,464	2,417	1,705	709	105	43,674
Occupied	5,428	2,336	5,242	5,144	2,688	1,221	1,651	209	2,238	1,365	1,064	469	60	29,115
% Occupied	80%	74%	58%	78%	65%	41%	70%	71%	65%	56%	62%	66%	57%	67%
On-Street Parking														
Spaces	452	231	546	343	563	272	338	90	254	773	726	303	102	4,993
Occupied	391	186	374	256	333	109	232	90	198	498	600	264	64	3,595
% Occupied	87%	81%	68%	75%	59%	40%	69%	100%	78%	64%	83%	87%	63%	72%
Total Spaces	7,226	3,371	9,562	6,911	4,717	3,257	2,680	385	3,718	3,190	2,431	1,012	207	48,667

Two of the seven districts, District A (East Town North) and D (Lakefront) have occupancies near or at 80 percent, which indicates relatively high levels of usage and the need to evaluate expansion of off-street if land use intensity is increased in these or adjacent districts. The other five districts have occupancy rates ranging from 56 to 74 percent indicating that excess off-street parking is available for both restricted and public use parking. In total, the CBD East generates a peak hour demand for nearly 18,500 off-street spaces compared to a demand for about 10,650 spaces in the CBD West.

CBD West

Also listed in Tables 2 and 3 as well as Appendix Table 1, is summary data for the CBD West off-street parking supply. The CBD West includes about 18,200 off-street spaces or about 48 percent of the total Study Area off-street parking supply. The overall off-street parking occupancy rate is 58 percent with public use parking at 55 percent and restricted use parking at 68 percent occupancy. The occupancy rates for the public use parking are far less than the CBD East, but the restricted parking occupancy rate is the same. The majority of the CBD West parking supply is operated as restricted parking with over 13,100 spaces of the 18,200 total off-street spaces located in the CBD West.

None of the six districts achieves an occupancy rate over 77 percent with the average occupancy between 55 and 60 percent. In total, the CBD West generates a peak hour demand for about 10,650 spaces with nearly 7,600 spaces available during the peak daytime period.

City of Milwaukee Owned Parking System

Of the 43,674 off-street parking spaces located within the Study Area, 4,379 parking spaces are located in parking structures owned by the City of Milwaukee, while 39,295 parking spaces are located in privately owned parking structures. Table 4 lists the City owned parking structures along with the location of the facilities, and the occupancy rate as obtained in the data collection effort.

For purposes of this study, the City owned structures and lots are referred to as “publicly owned” parking, while County and privately owned parking facilities are referred to as “privately owned” facilities in the text and tables. Furthermore, the City parking structures that are under long-term lease agreements are considered privately owned facilities, rather than publicly owned facilities.

Table 4 - City Owned Public Structures

Parking Structure	District	No. of Spaces	Occupied Spaces	Percent Occupied
MacArthur Square	I	1,439	1,091	76%
Second Street	C	466	250	53%
Fourth and Highland	F	977	431	44%
1000 North Water	E	1,495	955	64%
City Owned Structures		4,379	2,727	62%

Over the last two decades, the City of Milwaukee has sold the Eighth and State parking structure to the Milwaukee Area Technical College and has long-term leases on several other parking structures. The MacArthur Square and the Milwaukee and Michigan structures along with others including the Historic Third Ward Structure, the Bradley Center Structure, and the Grand Avenue Mall structure have either been sold, are under long-term leases or are under consideration for sale. The Milwaukee and Michigan structure is under a lease agreement with Johnson Controls. The Sinai Samaritan parking structure has also been under consideration for sale to Sinai Samaritan, the current long-term tenant. The 1000 North Water Street parking ramp is primarily supporting the existing and future parking needs of the 1000 North Water mixed-use development, which was constructed as a joint City of Milwaukee/private sector development project.

As shown in Table 4, the City owned parking facilities within the study area total approximately 4,379 parking spaces of which 2,727 spaces were occupied during the peak weekday time period (62 percent occupied).

SUMMARY

Under current conditions, the existing parking supply is sufficient to meet the overall parking demands in the Study Area. Specific block groups within districts of the CBD East or CBD West do not have sufficient on-street short-term parking; or the short-term parking supply is being occupied by long-term parkers. Although with the continued implementation of the Luke on-street pay-by-space stations will create a more accurate assessment of short-term versus long-term parking needs in the near future.

The following is a list of districts where the parking occupancy levels are at or near 80 percent and where future development has been proposed:

- District A – East Town North (81 percent);
- District D – Lakefront (78 percent);
- District B – East Town South (75 percent); and
- District H – Station (78 percent).

The Priority Areas are the focus of Section II - Future Conditions part of this report and will include several development scenarios for analysis relative to the adequacy of the existing parking system to support future growth.

District/ blocks	Off-Street Parking																		On-Street Parking																						
	Public Facility - City			Public Structure - Private			Public Lot - Private			Total Public Parking			Restricted Facility - City			Restricted Structure - Private			Restricted Lot - Private			Total Restricted Parking			Total Off-Street Parking			Metered			Unmetered Stalls			Total On-Street Parking			Total On- and Off-Street Parking				
	# of Spcs	Spcs Occup	% Occup	# of Spcs	Spcs Occup	% Occup	# of Spcs	Spcs Occup	% Occup	# of Spcs	Spcs Occup	% Occup	# of Spcs	Spcs Occup	% Occup	# of Spcs	Spcs Occup	% Occup	# of Spcs	Spcs Occup	% Occup	# of Spcs	Spcs Occup	% Occup	# of Spcs	Spcs Occup	% Occup	# of Spcs	Spcs Occup	% Occup	# of Spcs	Spcs Occup	% Occup	# of Spcs	Spcs Occup	% Occup	# of Spcs	Spcs Occup	% Occup	# of Spcs	Spcs Occup
F 10	0	0	N/A	0	0	N/A	53	41	77%	53	41	77%	0	0	N/A	155	118	76%	155	118	76%	208	159	76%	23	20	87%	0	0	N/A	23	20	87%	231	179	77%					
F 11	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	43	30	70%	43	30	70%	43	30	70%	5	5	100%	0	0	N/A	5	5	100%	48	35	73%					
F 12	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	30	17	57%	0	0	N/A	30	17	57%	30	17	57%	19	10	53%	3	0	0%	22	10	45%	52	27	52%					
F 13	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	110	64	58%	110	64	58%	110	64	58%	45	29	64%	0	0	N/A	45	29	64%	155	93	60%					
F 14	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	13	7	54%	0	0	N/A	13	7	54%	13	7	54%					
F 15	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	9	3	33%	9	3	33%	9	3	33%	9	3	33%					
F 16	0	0	N/A	0	0	N/A	173	150	87%	173	150	87%	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	173	150	87%	0	0	N/A	173	150	87%	173	150	87%					
F	977	431	44%	760	172	23%	654	226	35%	2391	829	35%	30	17	57%	0	0	N/A	564	375	66%	594	392	66%	2985	1221	41%	242	102	42%	30	7	23%	272	109	40%	3257	1330	41%		
G 1	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	12	11	92%	0	0	N/A	12	11	92%	12	11	92%					
G 2	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	122	122	100%	122	122	100%	122	122	100%	49	45	92%	12	11	92%	61	56	92%	183	178	97%					
G 3	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	57	52	91%	8	2	25%	65	54	83%	65	54	83%					
G 4	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	23	19	83%	92	52	57%	0	0	N/A	115	71	62%	39	32	82%	0	0	N/A	39	32	82%	154	103	67%					
G 5	0	0	N/A	520	310	60%	96	43	45%	616	353	57%	0	0	N/A	10	10	100%	10	10	100%	626	363	58%	25	21	84%	0	0	N/A	25	21	84%	651	384	59%					
G 6	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A		
G 7	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	260	149	57%	260	149	57%	260	149	57%	21	15	71%	7	7	100%	28	22	79%	288	171	59%					
G 8	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	134	91	68%	134	91	68%	134	91	68%	34	15	44%	0	0	N/A	34	15	44%	168	106	63%					
G 9	0	0	N/A	465	465	100%	0	0	N/A	465	465	100%	0	0	N/A	99	30	30%	0	0	N/A	99	30	30%	564	495	88%	4	4	100%	0	0	N/A	4	4	100%	568	499	88%		
G 10	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	16	12	75%	60	40	67%	76	52	68%	76	52	68%	0	0	N/A	21	0	0%	21	0	0%	97	52	54%		
G 11	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A		
G 12	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	152	130	86%	76	17	22%	228	147	64%	228	147	64%	0	0	N/A	24	11	46%	24	11	46%	252	159	63%		
G 13	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	23	11	48%	23	11	48%	23	11	48%	22	5	23%	0	0	N/A	22	5	23%	45	16	36%					
G 14	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	194	150	77%	194	150	77%	194	150	77%	194	150	77%	0	0	N/A	3	1	33%	3	1	33%	197	151	77%		
G	0	0	N/A	985	775	79%	96	43	45%	1081	818	76%	23	19	83%	359	224	62%	879	590	67%	1261	833	66%	2342	1651	70%	251	189	75%	87	43	49%	338	232	69%	2680	1883	70%		
H 1	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A		
H 2	0	0	N/A	0	0	N/A	134	131	98%	134	131	98%	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	134	131	98%	13	13	100%	5	5	100%	18	18	100%	152	149	98%		
H 3	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	53	32	60%	53	32	60%	53	32	60%	23	23	100%	0	0	N/A	23	23	100%	76	55	72%					
H 4	0	0	N/A	0	0	N/A	60	18	30%	60	18	30%	0	0	N/A	48	28	58%	48	28	58%	108	46	43%	27	27	100%	0	0	N/A	27	27	100%	135	73	54%					
H 5	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	10	10	100%	0	0	N/A	10	10	100%	10	10	100%					
H 6	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	12	12	100%	0	0	N/A	12	12	100%	12	12	100%					
H	0	0	N/A	0	0	N/A	194	149	77%	194	149	77%	0	0	N/A	101	60	59%	101	60	59%	295	209	71%	85	85	100%	5	5	100%	90	90	100%	385	299	78%					
I 1	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	40	22	55%	40	22	55%	40	22	55%	19	9	47%	26	14	56%	44	23	52%	84	45	54%					
I 2	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	329	200	61%	0	0	N/A	329	200	61%	329	200	61%	0	0	N/A	8	8	100%	8	8	100%	337	208	62%		
I 3	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	55	47	85%	55	47	85%	55	47	85%	24	23	96%	11	9	82%	35	32	91%	90	79	88%					
I 4	0	0	N/A	850	389	46%	93	62	67%	943	451	48%	0	0	N/A	0	0	N/A	0	0	N/A	943	451	48%	30	31	103%	0	0	N/A	30	31	103%	973	482	50%					
I 5	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	230	100	43%	48	22	46%	278	122	44%	278	122	44%	40	35	88%	0	0	N/A	40	35	88%	318	157	49%		
I 6	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	81	60	74%	81	60	74%	81	60	74%	0	0	N/A	0	0	N/A	0	0	N/A	81	60	74%					
I 7	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	19	18	95%	19	18	95%	19	18	95%	17	11	65%	9	0	0%	26	11	42%	45	29	64%					
I 8	1439	1091	76%	0	0	N/A	0	0	N/A	1439	1091	76%	169	150	89%	0	0	N/A	66	45	68%	235	195	83%	1674	1286	77%	8	6	75%	34	24	71%	42	30	71%	1716	1316	77%		
I 9	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	45	32	71%	45	32	71%	45	32	71%	29	28	97%	0	0	N/A	29	28	97%	74	60	81%					
I	1439	1091	76%	850	389	46%	93	62	67%	2382	1542	65%	169	150	89%	559	300	54%	354	246	69%	1082	696	64%	3464	2328	68%	167	143	86%	87	55	63%	254	198	78%	3718	2436	66%		
J 1	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	274	136	50%	274	136	50%	274	136	50%	0	0	N/A	54	12	22%	54	12	22%	328	148	45%					
J 2	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	40	40	100%	9	5	56%	49	45	92%	0	0	N/A	47	34	72%	47	34	72%	96	79	82%					
J 3	0	0	N/A																																						

Endnotes

ⁱ DRAFT Downtown Plan-Functional Sub-Areas, City of Milwaukee, 2008.

SECTION II – FUTURE CONDITIONS

CITY OF MILWAUKEE

DEPARTMENT OF CITY DEVELOPMENT

PREPARED BY:



**LANSING
MELBOURNE
GROUP**

SECTION I – EXISTING CONDITIONS

SECTION III – POLICY MAKING

PRINTED UNDER SEPARATE COVER

DECEMBER 2010

TABLE OF CONTENTS	PAGE
I. Future Parking Needs	1
Methodology.....	1
Growth Model.....	1
Part 1 – Existing Conditions	1
Part 2 – Potential Office Development	3
Part 3 – Potential Development Projects	6
Part 4 – Cumulative Parking Needs	7
II. Summary	8

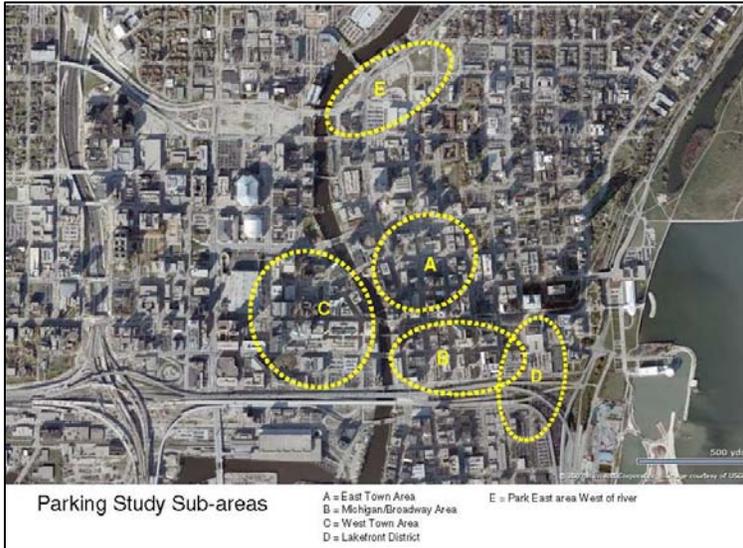
TABLES.....	PAGE
Table 1 - Existing Conditions Parking Data Summary.....	2
Table 2 - Parking Model Comparison.....	3
Table 3 - Existing and Future Potential Office Occupancy.....	5
Table 4 - Parking Demand Model.....	5
Table 5 - Existing Condition – Office Occupancy at 70 Percent.....	5
Table 6 – Future Base Conditions – Office Occupancy at 75 Percent.....	6
Table 7 - Proposed/Potential Development Alternatives and Parking Needs.....	9
Table 8 - Potential Development Parking Generation.....	10
Table 9 - Future Conditions Parking Conditions.....	11
Appendix Table 1.....	16
Appendix Table 2.....	17

FIGURES	PAGE
Figure 1 – Parking Study Sub-areas.....	1
Figure 2 – 2009 Estimates of Office Vacancy Rates	4
Figure 3 – Potential Development Project Sites	7
Figure 4 – BID Retail District (Blocks South 60 and 61).....	12
Figure 5 – MAC/Fire Station Site (Block East 65)	12
Figure 6 – Mason/Jefferson – Joel Lee Site (Block East 67).....	12
Figure 7 – Mackie/Mitchell/Loyalty Buildings (Blocks East 43 and 61).....	13
Figure 8 – The Broadway Historic Buildings (Block East 60).....	13
Figure 9 – Broadway/Michigan Site (Block East 44).....	13
Figure 10 – 503 – 525 Broadway Site (Block East 43).....	14
Figure 11 – Edison and Water Street Site (Block 135 and 136).....	14
Figure 12 – Park East – Block 22 (Block East 122).....	14
Figure 13 – 735 North Water Street Site (Block East 63).....	15
Figure 14 – Clark Street Development Parcels (Block West 10).....	15

I. FUTURE PARKING NEEDS

The following section evaluates potential land use development in a portion of the downtown comprised of five sub-areas. The five sub-areas selected by the City represent areas with the highest growth potential in the relative near term. The five sub-areas are illustrated in Figure 1.

FIGURE 1 - PARKING STUDY SUB-AREAS



METHODOLOGY

The future conditions scenario was developed based on a linear process starting with the existing conditions land use and parking demand and supply, then adding an increment of growth associated with an assumed increase in office occupancy in the existing building stock that represents the future base condition. A list of potential development projects was then overlaid on the future base condition to create the future land use scenario.

GROWTH MODEL

There are four components to the tables as follows:

- Part 1 - Summary of the Existing Conditions for the five sub-areas, A, B, C, D and E;
- Part 2 – Analysis of the potential for growth for office development based on current available office vacancies as provided by DCD;
- Part 3 – Analysis of the potential development projects provided by DCD; and
- Part 4 – Cumulative impact on parking needs that begin with existing conditions parking supply and demand, potential increases in office use in existing buildings based on estimated occupancy rates by sub-area and finally, the impact on parking needs as a result of moving forward with the list of potential development projects.

PART 1 – EXISTING CONDITIONS

Table 1 - Existing Conditions Parking Data Summary, provides a summary of the data collection effort discussed in the initial parking report, but modified to include only the sub-area zones included in the analysis.

Table 2 - Parking Model Comparison includes the same sub-area analysis as shown in Table 1 but presents the results of the parking model. The results of the comparison indicate the parking model is accurately estimating demand and therefore was used to estimate growth in parking demand associated with existing office inventory.

Table 2 - Parking Model Comparison shows the results of the comparison of the actual data collection (from Table 1) and the model results (from Appendix Table 1).

TABLE 2 - PARKING MODEL COMPARISON

2009 Data		Off-Street			On-Street			Total		
Subarea	Demand	Spaces	Occup	Demand	Spaces	Occup	Demand	Spaces	Occup	
A	5,428	6,774	80%	391	452	87%	5,819	7,226	81%	
B	2,336	3,140	74%	186	231	81%	2,522	3,371	75%	
C	5,242	9,016	58%	374	546	68%	5,616	9,562	59%	
D	5,144	6,568	78%	256	343	75%	5,400	6,911	78%	
E	469	709	66%	246	285	86%	715	994	72%	
Totals	18,619	26,207	71%	1,453	1,857	78%	20,072	28,064	72%	
2009 Model		Off-Street			On-Street			Total		
Subarea	Demand	Spaces	Occup	Demand	Spaces	Occup	Demand	Spaces	Occup	
A	5,714	6,774	84%	522	452	116%	6,236	7,226	86%	
B	2,745	3,140	87%	154	231	67%	2,899	3,371	86%	
C	6,557	9,016	73%	619	546	113%	7,176	9,562	75%	
D	4,134	6,568	63%	236	343	69%	4,369	6,911	63%	
E	279	709	39%	15	285	5%	294	994	30%	
Totals	19,428	26,207	74%	1,546	1,857	83%	20,974	28,064	75%	
Difference	809	-	3%	93	-	5%	902	-	3%	

The overall model results are approximately three percent higher than the actual data, well within variations that could occur during a typical day.

PART 2 – POTENTIAL OFFICE DEVELOPMENT

The methodology used to estimate the amount of office development that could occur with no new office building construction was based on a review of the land use inventory shown in Appendix Table 2 – Sub-area Office Inventory. Appendix Table 2 includes identification of the sub-area and block where existing office uses are located plus the amount of office space by square feet (sf). Estimates of office-leased space (occupancy) by sub-area, were prepared based on information provided to the City by a local leasing agent as illustrated in Figure 2.

Table 3 - Existing and Future Potential Office Occupancy shows an estimate of total office square footage (from Appendix Table 2) by sub-area along with an estimate of the leased office square footage (office occupancy) and the resultant occupancy rate. The occupancy rates were then increased to reflect a growth in leased office space, by sub-area, modeling a close to “fully” leased inventory of office space in the sub-areas. The total amount of leased office space (occupied) is also listed along with the net additional amount of office space (growth in office space leased) that is assumed to occur over the next five years. Also accounted for in Table 3 is the amount of renovated office space that is assumed leased and occupied as a component of the “Potential Development Projects” discussed in Part 3 below.

FIGURE 2 - 2009 ESTIMATES OF OFFICE VACANCY RATES

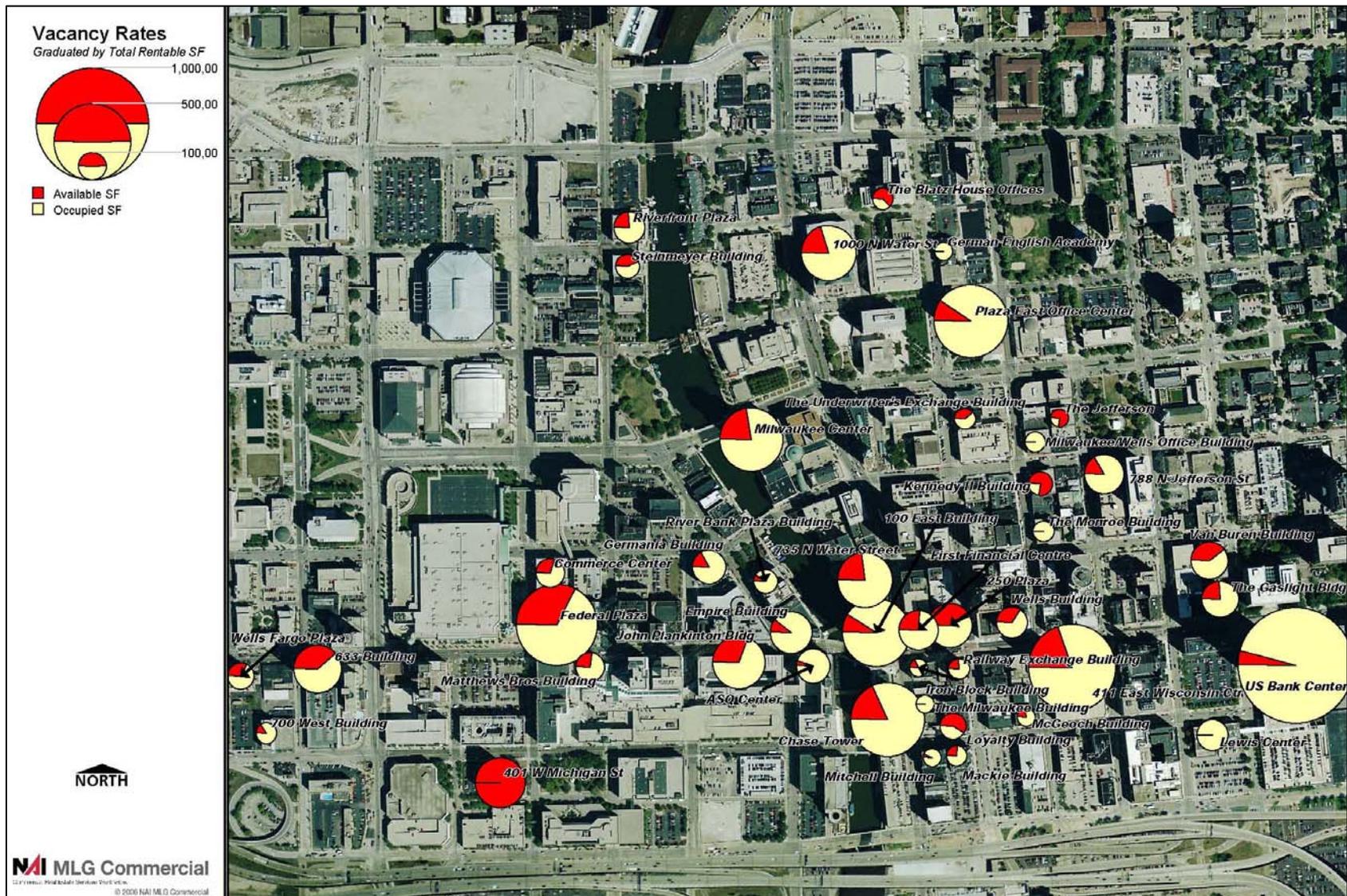


TABLE 3 - EXISTING AND FUTURE POTENTIAL OFFICE OCCUPANCY

Subarea	Existing Occupancy			Pot. Dev Project		Potential Future Occupancy			
	Exist Cap. (SF)	Occupied SF	Available SF	Renovated Office Project #	Size	Total Occup	Additional SF	% Incr in Occup SF	
A - Office	4,593,700	78%	3,583,086	1,010,614	12	96,000	83%	229,685	6%
B - Office	2,205,438	65%	1,433,535	771,903	4, 5, 7	363,280	70%	110,272	8%
C - Office	2,690,507	60%	1,614,304	1,076,203	-	-	65%	134,525	8%
D - Office	3,846,324	70%	2,692,427	1,153,897	-	-	75%	192,316	7%
E - Office	1,998	100%	1,998	-	-	-	-	-	-
Totals	13,337,968	70%	9,325,350	4,012,618	NA	459,280	75%	666,798	7%

Table 4 - Parking Demand Model provides a summary of the existing long-term (Employee) and short-term (Visitor) parking demands (from Table 1) as a baseline to measure the anticipated change in parking demand associated with the increase in existing office occupancy. As shown, the seven percent (7%) increase in office occupancy (666,798 sf shown in Table 3) results in an increase in parking demand of approximately 1,500 parkers in the peak hour.

TABLE 4 - PARKING DEMAND MODEL

Changes in Employment associated with Office Occup	Parking Demand from Model		
	Employee Demand	Visitor Demand	Total Demand
Existing Employment	19,428	1,546	20,974
7% Increase in Employment	<u>1,389</u>	<u>111</u>	<u>1,500</u>
Parking Demand	20,817	1,657	22,474

A 5% increase in the total office space capacity equals 7% increase in occupied space.

Table 5 - Existing Condition – Office Occupancy at 70 Percent, shows the parking demand and occupancy for existing conditions (assumes office occupancy at 70 percent) by sub-area for comparison with the future potential office occupancy assumptions discussed previously (office occupancy growth to 75 percent leased space). The highlighter indicates whether the off-street, on-street or total parking demand for a sub-area approaches or exceeds the “peak hour design condition.” The peak hour design condition represents an occupancy rate of 85 percent during the typical weekday peak hour.

TABLE 5 - EXISTING CONDITION – OFFICE OCCUPANCY AT 70 PERCENT

Subarea	Off-Street			On-Street			Total		
	Demand	Spaces	Occup	Demand	Spaces	Occup	Demand	Spaces	Occup
A	5,714	6,774	84%	522	452	116%	6,236	7,226	86%
B	2,745	3,140	87%	154	231	67%	2,899	3,371	86%
C	6,557	9,016	73%	619	546	113%	7,176	9,562	75%
D	4,134	6,568	63%	236	343	69%	4,369	6,911	63%
E	279	709	39%	15	285	5%	294	994	30%
Totals	19,428	26,207	74%	1,546	1,857	83%	20,974	28,064	75%

Table 6 – Future Base Conditions – Office Occupancy at 75 Percent illustrates the result of adding the parking demand associated with the growth in office occupancy to the existing parking demand. The highlighted numbers indicate those sub-areas where either the off-street, on-street and/or total parking occupancies approach or exceed the 85 percent design condition.

TABLE 6 – FUTURE BASE CONDITIONS – OFFICE OCCUPANCY AT 75 PERCENT

Subarea	Off-Street			On-Street			Total		
	Demand	Spaces	Occup	Demand	Spaces	Occup	Demand	Spaces	Occup
A	6,123	6,774	90%	560	452	124%	6,682	7,226	92%
B	2,941	3,140	94%	165	231	71%	3,106	3,371	92%
C	7,026	9,016	78%	664	546	122%	7,689	9,562	80%
D	4,429	6,568	67%	252	343	74%	4,682	6,911	68%
E	299	709	42%	16	285	6%	315	994	32%
Totals	20,817	26,207	79%	1,657	1,857	89%	22,474	28,064	80%

The next part of the methodology for estimating the future parking demand addresses parking impacts associated with potential development projects.

PART 3 – POTENTIAL DEVELOPMENT PROJECTS

The City of Milwaukee has identified a list of potential development projects that have been used in this analysis. The list is comprised of relatively high visibility, desirable land development sites that have been under consideration for development. These sites represent the most likely future development sites in the downtown. The land use scenario for each site is based on the most probable use for each site, although the exact use may change depending on opportunity.

Table 7 - Proposed/Potential Development Alternatives and Parking Needs lists the development sites, description and an assumed implementation year although, once again, the actual development will be subject to economic conditions and opportunity. Also listed in Table 7 is an estimate of the peak parking demand for each of the development sites. Several projects could be developed in multiple configurations and are therefore shown with one or more alternatives. The intent of the alternative is to obtain a sense of the likely range of parking needs that could occur under different development scenarios. Each of the development sites is depicted in Figure 3 – Potential Development Project Sites and correlates with the data in Table 7. Figures 4 through 14 include an aerial of each site and a boundary of the approximate development site under consideration.

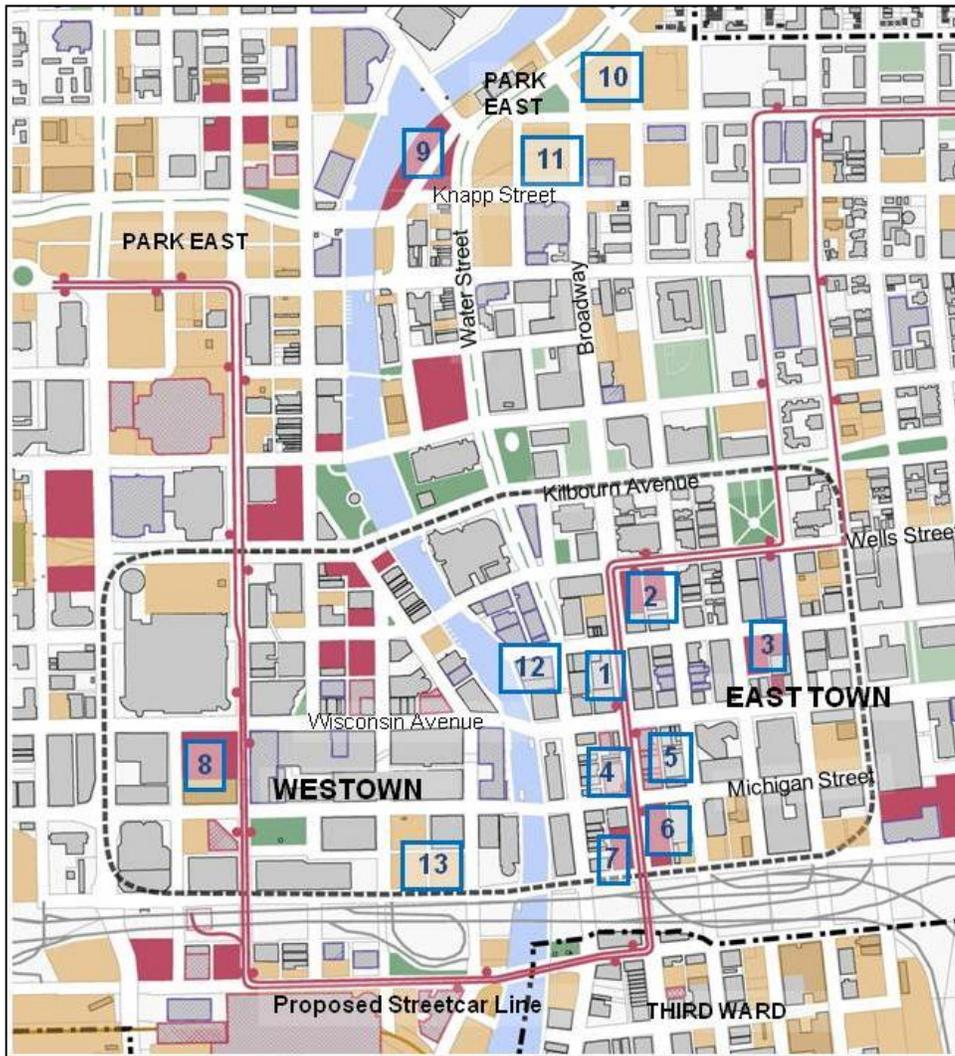
Table 8 – Potential Development Parking Generation provides the same information shown in Table 7, only the potential developments were grouped by implementation year. In addition, a single most likely development scenario was chosen for each site that had multiple development alternatives.

The bold font identifies the alternative chosen for a specific development. The rows shown with highlighter in the summary section of each implementation period include a summation of potential development projects used as the basis for further analysis in Part 4. In addition to the project data is a parking generation model at the bottom of Table 8. This model includes the parking generation rates used to estimate the peak hour parking needs of each site.

The parking generation table used to estimate parking needs is summarized in Table 9. Also included in the last row of Table 9 is a summary of the development square footage

and the cumulative parking data.

FIGURE 3 - POTENTIAL DEVELOPMENT PROJECT SITES



PART 4 – CUMULATIVE PARKING NEEDS

TABLE 9 – FUTURE PARKING CONDITIONS also provides a calculation and roll-up of the three preceding parts that include 1) the cumulative impact of existing development, 2) potential existing office development and 3) potential development parking demand for off-street, on-street and total parking demand.

Aerial photography (Figures 4 through 14) was reviewed for each potential development site to determine whether a project might affect the existing parking supply. The information and parking data on the aerials was cross-referenced with the data contained in Table 1 to identify the approximate number of spaces and parking demand that would be displaced due to new development.

Table 9 also indicates the number of off-street and on-street spaces estimated to be lost to a building site or to provide driveway access as part of each development project implementation. Table 9 also integrates the loss or addition to parking due to potential

development in the public and private parking system and finally, rolls-up the parking numbers to illustrate the total parking supply, the total parking demand, occupancy rate and any shortfall or surplus of parking spaces by subarea.

II. SUMMARY

In summary, as listed in Table 9 and under the assumptions discussed herein the post 2014 future parking conditions will include a peak hour:

- Increase in employee parking demand of 4,646 vehicles;
- Increase in short-term parking demand of 1,114 vehicles; and
- A total increase in parking demand of 5,760 vehicles.

As a result of the site development and new construction associated with the potential development projects:

- 1,672 off-street spaces will be eliminated;
- 39 on-street spaces will be eliminated; and
- A total of 1,711 on- and off-street spaces will be eliminated.

As a result of the loss of on-street parking and the increase in employee parking demand, the "adjusted" parking supply (90 percent vacancy rate) and peak hour demand for the off-street parking system (as shown in Table 9) includes:

- An off-street parking supply of 24,535 spaces;
- A demand for 25,463 off-street spaces; and
- A parking occupancy exceeding 100 percent resulting in a shortfall of 3,758 off-street parking spaces. This assumes a target vacancy rate of 90 percent associated with the demand.

As a result of the loss of on-street parking and the increase in short-term, visitor parking demand, the "adjusted" parking supply and peak hour demand for the on-street parking system (as shown in Table 9) includes:

- An on-street parking supply of 1,818 spaces;
- A demand for 2,771 on-street spaces; and
- A parking occupancy exceeding 150 percent resulting in a shortfall of 1,261 on-street parking spaces. This assumes a target vacancy rate of 90 percent associated with the demand.

The future parking condition, as estimated herein, include a total on-street and off-street parking supply of 26,353 spaces and an adjusted peak hour parking demand of 28,234 spaces resulting in an occupancy exceeding 100 percent. The resultant shortfall is approximately 5,018 spaces. The total on-street and off-street parking supply would need to be increased from 26,353 to 31,371 spaces, an increase of 5,018 spaces, to accommodate the parking demands described herein.

Section III of the Milwaukee Downtown Parking Study will use this information as a reference point and baseline for developing a policy framework that encourages land development through public/private partnerships, by leveraging existing parking assets, by optimizing transit and transportation infrastructure, as well as land resources, along with other investment to expand the parking system in a prudent and fiscally responsible manner.

TABLE 7 - PROPOSED/POTENTIAL DEVELOPMENT ALTERNATIVES AND PARKING NEEDS

Project No.	Parking Study Updated Ref.	DT Plan Reference System	Project Name / Block Number	Location / Existing Use	Proposed / Potential use	Type of Land Use	Parking Needs					Implementation			
							Size	Rate	per	Pk Hr Demand	Spaces Requ'd	2011	2013	>2014	
1	C16 & C17	S60 & S61	The BID Retail Plan / South 60 & 61	Wisconsin Ave from Broadway to Jefferson - Under Utilized 1st and 2nd Floor Retail plus the 21,031 sf in the Broadway Historic Buildings	Phase 1	45,000 GSF of Retail	Retail	45,000	3.00	1kgsf	135	150			
					Phase 2	Additional 45,000 GSF of Retail	Retail	90,000	3.00	1kgsf	270	300			
					Phase 3	Additional 45,000 GSF of Retail	Retail	135,000	3.00	1kgsf	405	450			
2	A10	E85	MAC/Fire Station Site / East 65	777 N. Milwaukee St., 784 N Broadway & 792 N. Broadway parcel - 36,428 SF	20-Story Office Building w/ Ground Floor Retail	Office	250,000	2.80	1kgsf	700	737				
					60% coverage	Retail	21,857	3.00	1kgsf	66	73				
					Total	42,533	1kgsf	766	810						
3	A17	E67	Mason/Jefferson - Joel Lee Site / East 67	741 N. Jackson east of the Pfister Hotel - Parking Lot parcel - 38,100 SF	20-story Office Tower w/ Ground Floor Retail	Office	250,000	2.80	1kgsf	700	737				
					60% coverage	Retail	30,480	3.00	1kgsf	91	102				
					Total	280,480	1kgsf	791	838						
4	B2 & B7	E51	Mackie/Mitchell/Loyalty Buildings / East 61	207, 225 E Michigan St & 601-611 - Iconic Historic Buildings	Restoration	Office	168,184	2.80	1kgsf	471	496				
5	B3	E60	The Broadway Historic Buildings / East 60	600, 608, 618, 624, 628, 632, 638 N Broadway / 4-story Historic Buildings	Alternative 5A	Office plus w/ Ground Floor Retail	Office	65,496	2.80	1kgsf	183	193			
					OR Alternative 5B	Residential w/ Ground Floor Retail (1200 GSF/unit res)	Res. (units)	55	1.30	unit	71	71			
					OR Alternative 5C	Office and Residential plus Ground 1/2 of first floor retail (included in Proj #1 - BID Retail is converted to Office. In final scenario the BID Retail project loses 10,515 SF of Retail	Office	32,748	2.80	1kgsf	92	97			
					Total	32,775	N/A	127	132						
6	B8	E44	Broadway/Michigan Site / East 44	500 N. Broadway - Parking Lot used by AT&T	Entertainment Center	Approx	600	0.34	person	204	227				
					4ktsf of Ground Floor Retail	Retail	4,000	3.00	1kgsf	12	13				
					Total	42,533	N/A	216	240						
7	B7	E43	503 to 525 Broadway Site / East 43	503-511-519 N Broadway / Parking Lot parcel - 28,800	6-Story Office w/ Ground Floor Retail (90% coverage)	Office	129,600	2.80	1kgsf	363	382				
					Retail	25,920	3.00	1kgsf	78	86					
					Total	42,533	1kgsf	441	468						
8	E3	E135 & E136	Edison and Water Street Site / East 135 & 136	Bounded by Water St / Milwaukee River and Knapp / Cherry St - Parking Lot	approximately 10gsf of Entertainment/Retail/Commercial uses	Office	300,000	2.80	1kgsf	840	884				
							25,000	3.00	1kgsf	75	83				
					Total	325,000	1kgsf	915	968						
9	E6	E158	Park East - Block 22 / East 158	Bounded by Broadway / Milw & Ogden / Lyon Parking lot parcel - 84,250 SF	Alternative 9A	6-Story Residential Apartment Tower at 1200 sf/unit (90% coverage)	Res. (units)	384	1.30	unit	499	499			
					OR Alternative 9B	2-Story Big Box Retail - Parking At-Grade (90% coverage)	Retail	151,650	3.00	1kgsf	455	506			
					OR Alternative 9C	20-story Office Tower w/ Ground Floor Retail	Office	250,000	2.80	1kgsf	700	737			
					60% coverage	Retail	75,825	3.00	1kgsf	227	253				
Total	325,825	1kgsf	927	990											
10	A13	E63	735 N Water Street Site / East 63	735 N Water Street / Renovated Building	Renovated Office	Office	96,000	2.80	1kgsf	269	283				
11	C21	W10	Clark Street Development Parcels / West 10	179 E Michigan/503 N Plankinton/500 N 2nd - Parking Lot used by WE Energies	Alternative 11A	Hotel plus Ground Floor Retail	Retail	100,000	3.00	1kgsf	300	333			
						Hotel rooms at 400sf/rm	Hotel (rms)	120	1.10	room	132	132			
					Total	148,000	N/A	432	465						
					OR Alternative 11B	Residential plus Ground Floor Retail	Retail	100,000	3.00	1kgsf	300	333			
	Residential at 1200 sf/unit	Res. (units)	40	1.30	unit	52	52								
Total	132,000	N/A	352	385											

TABLE 8 - POTENTIAL DEVELOPMENT PARKING GENERATION

No.	Project	Sub Area	Office	Retail	Resid.	Theater	Hotel	Total	Proj. Pk Hr Demand ¹		
									Total	Off-Street	On-Street
1	The BID Retail Plan - Phase 1	C16/C17	0	45,000	0	0	0	45,000	135	49	86
4	Mackie/Mitchell/Loyalty Buildings	B2/B7	168,184	0	0	0	0	168,184	471	447	24
7	503-525 Broadway Site	B7	129,600	25,920	0	0	0	155,520	441	354	87
10	735 N Water Street Site	A13	96,000	0	0	0	0	96,000	269	255	13
Year 2011			393,784	70,920	0	0	0	464,704	1,315	1,105	210
1	The BID Retail Plan - Phase 2	C16/C17	0	45,000	0	0	0	45,000	135	49	86
2	MAC/Fire Station Site	A10	250,000	21,857	0	0	0	271,857	766	673	93
6	Broadway/Michigan Site	B8	0	4,000	0	600	0	4,600	216	205	11
8	Edison and Water Street Site	E3	300,000	25,000	0	0	0	325,000	915	807	108
9	Park East - Block 22 - Alt 9A	E6	0	0	384	0	0	384	499	489	10
	Park East - Block 22 - Alt 9B	E6	0	151,650	0	0	0	151,650	455	164	291
	Park East - Block 22 - Alt 9C	E6	250,000	75,825	0	0	0	325,825	927	692	235
Year 2013	Scenario 1 - Projects 1, 2, 6, 8, 9A		550,000	95,857	384	600	0	646,840	2,530	2,223	307
	Scenario 1 - Projects 1, 2, 6, 8, 9A, 9B		550,000	247,507	0	600	0	798,106	2,486	1,898	589
	Scenario 1 - Projects 1, 2, 6, 8, 9A, 9C		800,000	171,682	0	600	0	972,281	2,959	2,426	533
1	The BID Retail Plan - Phase 3	C16/C17	0	34,485	0	0	0	34,485	103	37	66
3	Mason/Jefferson - Joel Lee Site	A17	250,000	30,480	0	0	0	280,480	791	676	115
5	The Broadway Historic Buildings - Alt 5A	B3	65,496	0	0	0	0	65,496	183	174	9
	The Broadway Historic Buildings - Alt 5B	B3	0	0	71	0	0	65,496	92	90	2
	The Broadway Historic Buildings-Alt 5C	B3	32,748	10,515	27	0	0	65,496	159	126	33
11	Clark Street Development Parcels - Alt 11A	C21	0	100,000	0	0	120	148,000	432	276	156
	Clark Street Development Parcels - Alt 11B	C21	0	100,000	40	0	0	148,000	352	178	174
> Year 2014	Scenario 1 - Projects 1, 3, 5A, 11A		315,496	164,965	0	0	120	480,581	1,510	1,163	347
	Scenario 2 - Projects 1, 3, 5A, 11A, 11B		315,496	164,965	40	0	0	480,501	1,430	1,065	365
	Scenario 3 - Projects 1, 3, 5B, 11A		250,000	164,965	71	0	120	415,156	1,419	1,079	340
	Scenario 4 - Projects 1, 3, 5B, 11B		250,000	164,965	111	0	0	415,076	1,339	981	358
	Scenario 5 - Projects 1, 3, 5C, 11A		282,748	175,480	27	0	120	458,375	1,486	1,114	371
	Scenario 6 - Projects 1, 3, 5C, 11B		282,748	175,480	67	0	0	458,295	1,406	1,017	389
Total > 2014			1,226,532	342,257	493,147	56,000	48,000	2,165,935	5,331	4,646	1,114

¹Parking Generation Table

Land Use	/ size	Total	Off-St	On-St
Office	1kgsf	2.80	2.660	0.140
Retail	1kgsf	3.00	0.360	2.640
Hotel	room	1.10	1.000	0.100
Residential	unit	1.30	1.275	0.025
Cinema	seat	0.34	0.340	0.000

²Off-street parking demand increased by 5% and on-street parking demand increased by 10% to reflect the associated parking supply required to meet demand.

PARKING STUDY OF THE GREATER MILWAUKEE AREA
SECTION II - FUTURE PARKING NEEDS

12/01/2010

TABLE 9 - FUTURE CONDITIONS PARKING CONDITIONS

District	Project No. and Name	Increase in Parking Demand			Spaces Lost/Gained			Off-Street Parking Adjusted for Potential Projects (90% target vacancy rate)				On-Street Parking Adjusted for Potential Projects (90% target vacancy rate)				Total Adjusted Parking System (90% target vacancy rate)			
		Off-St	On-St	Total	Off-St	On-St	Total	Spaces	Demand	% Occup	Surplus/ (Shortfall)	Spaces	Demand	% Occup	Surplus/ (Shortfall)	Spaces	Demand	% Occup	Surplus/ (Shortfall)
A	2 MAC/Fire Station Site	673	93	766	(181)	0	(181)												
	3 Mason/Jefferson - Joel Lee Site	676	15	791	(183)	(10)	(193)												
	12 735 N Water Street Site	255	13	269	0	0	0												
	subtotal	1604	222	1826	(364)	(10)	(374)	6,410	7,727	121	(2,175)	442	781	177	(426)	6,852	8,508	124	(2,601)
B	4 Mackie/Mitchell/Loyalty Buildings	447	24	471	0	0	0												
	7 503-525 Broadway Site	354	87	441	(15)	(5)	(20)												
	6 Broadway/Michigan Site	205	11	216	(217)	(4)	(221)												
	5 The Broadway Historic Buildings - Alt 5C	126	33	159	0	0	0												
subtotal	1,132	154	1,286	(332)	(9)	(341)	2,808	4,074	145	(1,718)	222	318	143	(132)	3,030	4,392	145	(1,850)	
C	1 Retail BID District	134	239	373	0	0	0												
	13 Clark Street Development Parcels - Alt 11A	276	156	432	(738)	(20)	(758)												
	subtotal	410	395	805	(738)	(20)	(758)	8,278	7,435	0.90	16	526	1,059	2.01	(651)	8,804	8,495	0.96	(635)
D	No Projects																		
subtotal	0	0	0	0	0	0	6,568	4,429	0.67	1,647	343	252	0.74	63	6,911	4,682	0.68	1,709	
E	9 Edison and Water Street Site	807	108	915	(238)	0	(238)												
	10 Park East - Block 22 - Alt 9C	692	235	927	0	0	0												
	subtotal	1,499	343	1,842	(238)	0	(238)	471	1,798	3.82	(1,527)	285	360	1.26	(114)	756	2,158	2.85	(1,641)
Totals		4,646	1,114	5,760	(1,672)	(39)	(1,711)	24,535	25,463	1.04	(3,758)	1,818	2,771	1.52	(1,261)	26,353	28,234	1.07	(5,018)

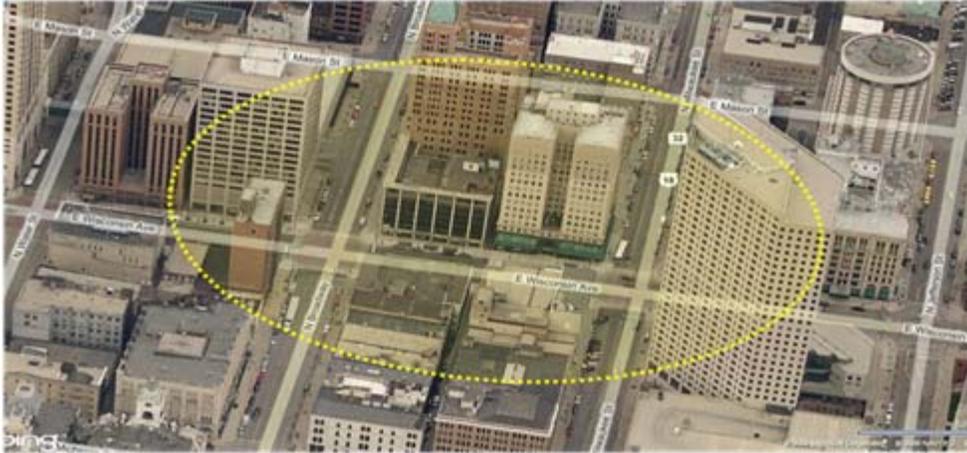


FIGURE 4 - BID RETAIL DISTRICT (BLOCKS SOUTH 60 AND 61)



FIGURE 5 - MAC / FIRE STATION SITE (BLOCK EAST 65)

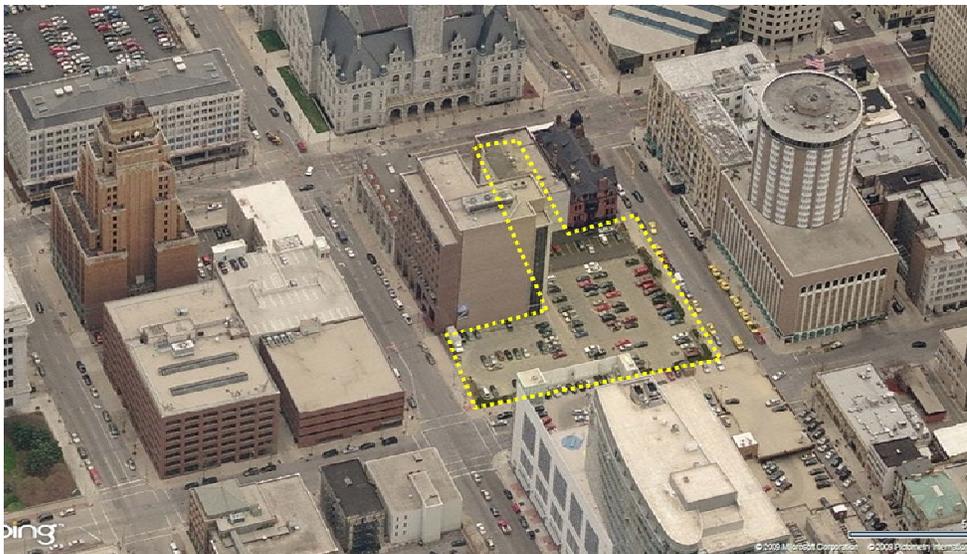


FIGURE 6 - MASON / JEFFERSON - JOEL LEE SITE (BLOCK EAST 67)

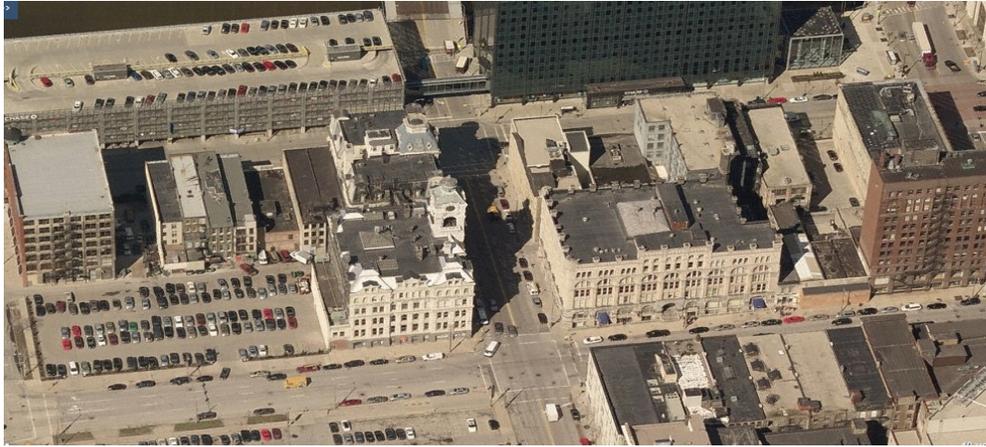


FIGURE 7 - MACKIE / MITCHELL / LOYALTY BUILDINGS (BLOCK EAST 43 AND 61)

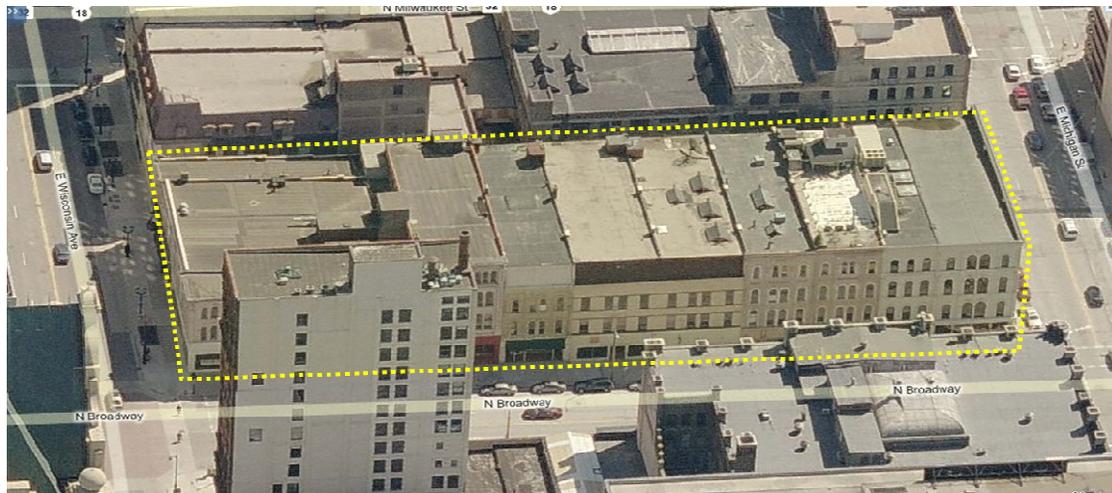


FIGURE 8 - THE BROADWAY HISTORIC BUILDINGS (BLOCK EAST 60)

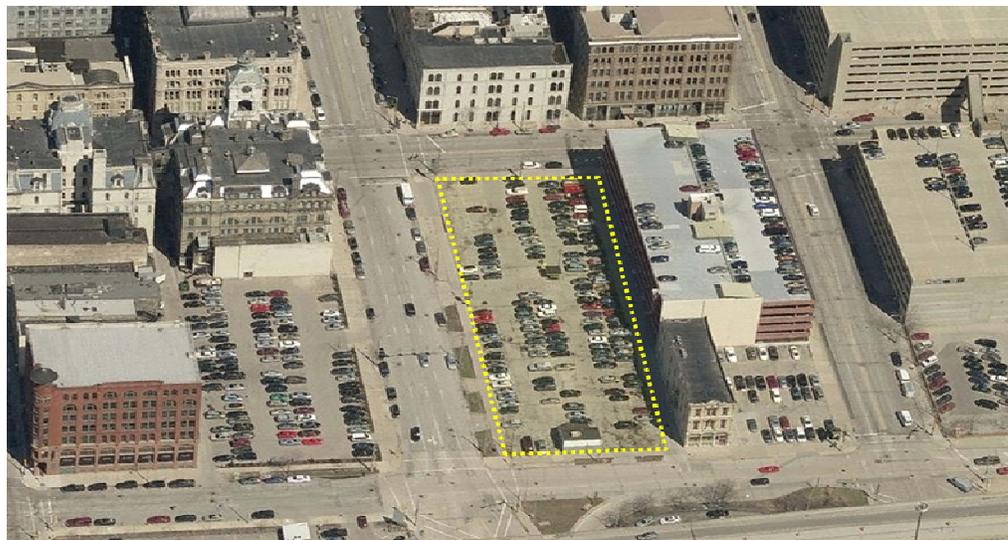


FIGURE 9 - BROADWAY / MICHIGAN SITE (BLOCK EAST 44)



FIGURE 10 – 503 TO 525 BROADWAY SITE (BLOCK EAST 43)

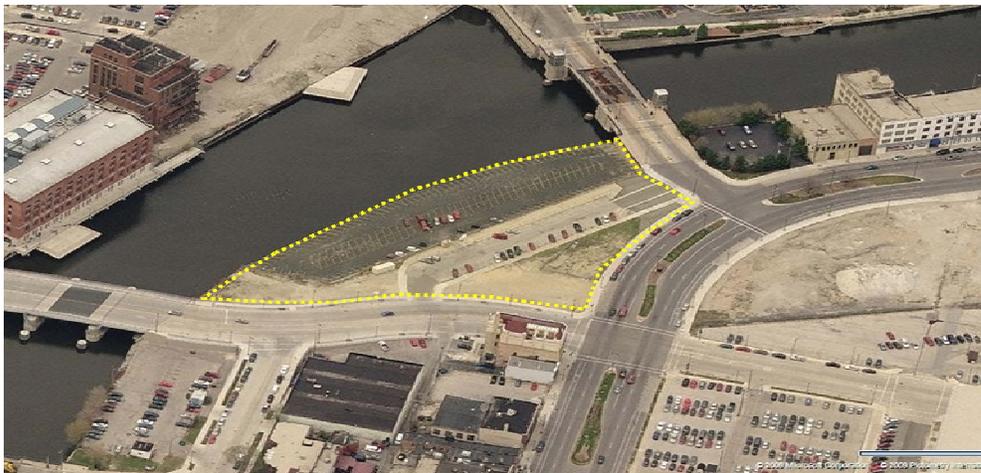


FIGURE 11 – EDISON AND WATER STREET SITE (BLOCK EAST 135 AND 136)

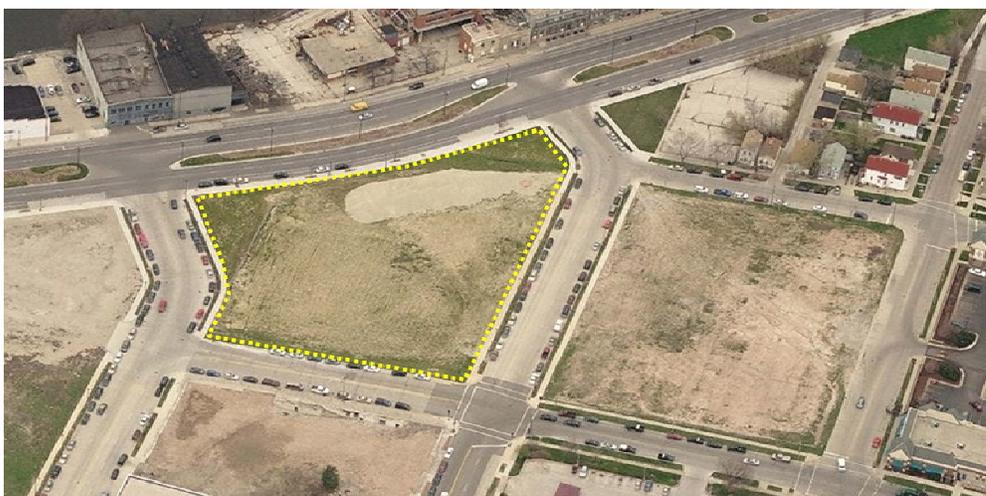


FIGURE 12 - PARK EAST - BLOCK 22 (BLOCK EAST 122)

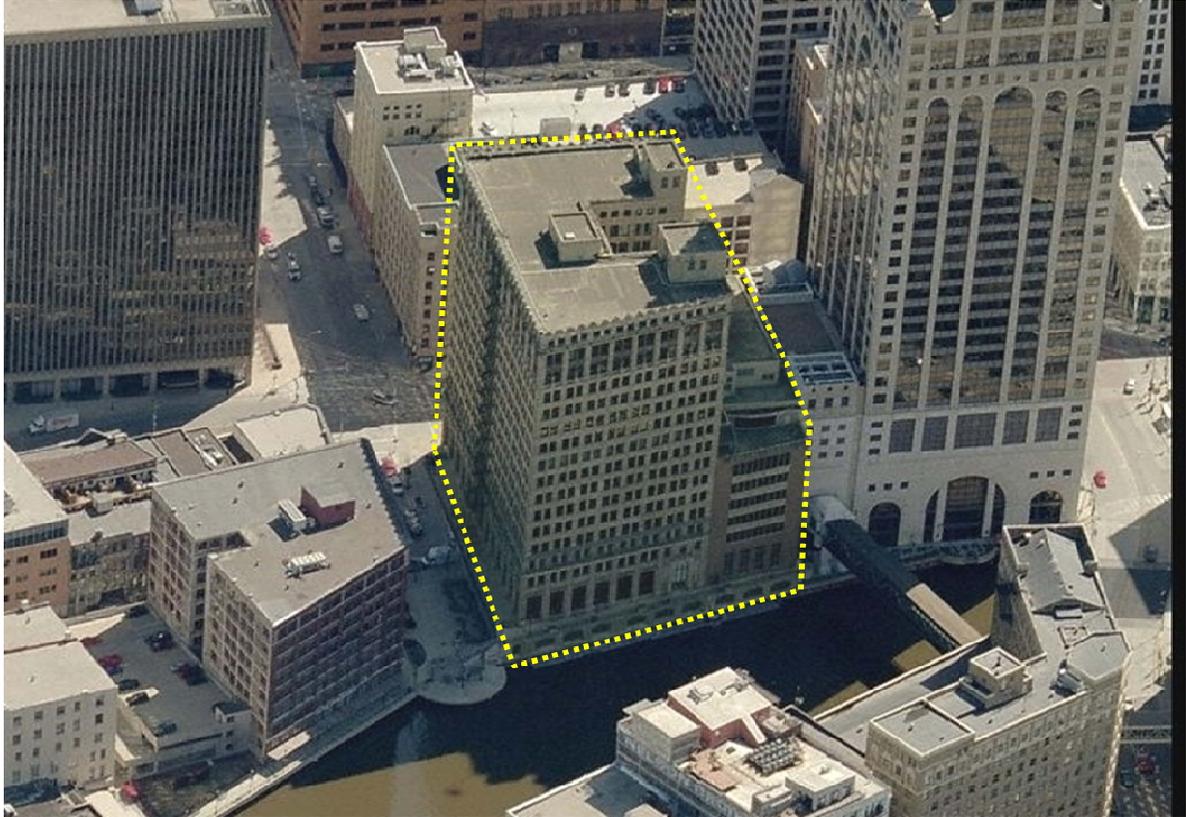


FIGURE 13 - 735 NORTH WATER STREET SITE (BLOCK EAST 63)



FIGURE 14 - CLARK STREET DEVELOPMENT PARCELS (BLOCK WEST 10)

PARKING STUDY OF THE GREATER MILWAUKEE AREA
SECTION II - FUTURE PARKING NEEDS

12/01/2010

APPENDIX TABLE 1 - PARKING GENERATION MODEL

Sub Area	Block No.	Block No.	Employees/ Residents				LU Type	Transit Use	Modelled Parked Cars			Observed Demand			Model to Obs
			HH	SEW RPC	Adj Empl	Res			Empl Restrict	Visitor Public	Total	Off-Street	On-Street	Total	
A	98	0	52	28	0	PR	11.3%	19	1	20	119	4	123	16%	
A	99	0	611	325	0	PR	11.9%	216	12	228	410	14	424	54%	
A	100	0	763	405	0	PR	11.9%	269	15	285	162	24	186	153%	
A	101	0	106	56	0	PR	11.9%	37	2	40	15	4	19	208%	
A	117	0	1,250	664	0	PR	11.9%	441	25	466	0	0	0	0%	
A	118	0	486	258	0	PR	13.1%	169	10	179	0	8	8	2236%	
A	119	0	2,771	1,472	0	PR	13.1%	965	55	1,020	374	18	392	260%	
A	120	33	378	201	46	PR	13.3%	131	8	139	82	27	109	127%	
A	121	0	440	234	0	PR	13.3%	153	9	162	313	29	342	47%	
A	122	0	446	237	0	PR	13.3%	155	9	164	87	0	87	188%	
A	143	0	41	22	0	RE	13.1%	14	3	17	530	2	532	3%	
A	144	0	2,907	1,544	0	RE	13.1%	1,012	185	1,197	633	24	657	182%	
A	145	0	1,493	793	0	MX	13.3%	518	79	598	252	47	299	200%	
A	146	0	557	296	0	MX	13.3%	193	30	223	419	24	443	50%	
A	147	0	1,082	575	0	RE	13.3%	376	69	445	100	0	100	445%	
A	162	0	1,729	919	0	PR	13.1%	602	34	636	350	13	363	175%	
A	163	0	1,165	619	0	PR	13.1%	406	23	429	349	32	381	113%	
A	164	0	0	0	0	N/A	13.1%	0	0	0	0	22	22	0%	
A	165	0	488	259	0	PR	13.3%	169	10	179	0	14	14	1279%	
A	166	0	1,618	859	0	PR	13.1%	563	32	595	54	32	86	692%	
A	167	0	333	177	0	PR	13.3%	116	7	122	454	24	478	26%	
A	168	0	93	49	0	PR	13.3%	32	2	34	539	12	551	6%	
A			33	18,809	9,992	46		6,557	619	7,176	5,242	374	5,616	128%	
B	102	0	1,821	967	0	PR	12.5%	638	36	675	900	13	913	74%	
B	103	0	869	461	0	PB	12.5%	305	74	378	0	0	0	0%	
B	104	0	2,150	1,142	0	PB	12.5%	754	183	936	106	35	141	664%	
B	105	0	104	55	0	PR	10.6%	37	2	39	773	33	806	5%	
B	106	0	683	363	0	PR	10.6%	245	14	258	66	42	108	239%	
B	107	0	0	0	0	N/A	10.6%	0	0	0	0	58	58	0%	
B	108	0	18	10	0	PR	10.6%	6	0	7	9	29	38	18%	
B	123	14	575	305	20	PR	13.2%	200	11	211	207	12	219	96%	
B	124	0	1,367	726	0	PR	13.2%	475	27	503	538	16	554	91%	
B	125	0	464	247	0	PR	13.2%	161	9	171	209	19	228	75%	
B	126	0	414	220	0	PR	13.2%	144	8	152	54	36	90	169%	
B	127	0	804	427	0	PR	12.3%	283	16	299	1,033	13	1,046	29%	
B	132	0	2,598	1,380	0	PR	13.2%	903	52	955	290	6	296	323%	
B	133	0	1,377	732	0	PR	13.2%	479	27	506	956	18	974	52%	
B	134	0	1,772	942	0	PR	13.2%	616	35	651	0	28	28	2327%	
B	135	0	914	486	0	PR	13.2%	318	18	336	180	10	190	177%	
B	136	153	425	226	214	PR	12.3%	149	8	158	107	23	130	121%	
B			167	16,356	8,689	234		5,714	522	6,236	5,428	391	5,819	107%	
C	128	0	621	330	0	PR	12.3%	218	12	231	71	20	91	253%	
C	129	0	29	15	0	PR	12.3%	10	1	11	850	23	873	1%	
C	130	0	0	0	0	N/A	12.3%	0	0	0	24	27	51	0%	
C	137	0	1,475	784	0	PR	12.3%	518	29	548	274	23	297	184%	
C	138	0	2,421	1,286	0	PR	12.3%	851	48	899	0	54	54	1665%	
C	153	0	221	117	0	PR	13.0%	77	4	81	217	32	249	33%	
C	154	0	3,208	1,704	0	PR	13.0%	1,118	64	1,182	0	7	7	16884%	
C	155	0	384	204	0	PR	13.0%	134	8	141	1,272	30	1,302	11%	
C	174	0	257	136	0	PR	13.0%	90	5	95	169	19	188	50%	
C	175	0	3,208	1,704	0	PR	13.0%	1,118	64	1,182	853	12	865	137%	
C	188	0	0	0	0	N/A	13.0%	0	0	0	0	9	9	0%	
C	189	0	0	0	0	N/A	13.0%	0	0	0	1,414	0	1,414	0%	
C			0	11,823	6,281	0		4,134	236	4,369	5,144	256	5,400	81%	
D	148	1	2,023	1,075	1	PR	13.1%	704	40	744	0	7	7	10635%	
D	149	0	1,133	602	0	PR	13.1%	394	23	417	11	27	38	1097%	
D	150	0	423	225	0	PR	13.1%	147	8	156	0	39	39	399%	
D	151	0	1,395	741	0	PR	13.1%	486	28	513	626	18	644	80%	
D	152	0	713	379	0	PR	13.0%	249	14	263	26	3	29	906%	
D	169	0	172	92	0	PR	13.1%	60	3	63	443	0	443	14%	
D	170	0	533	283	0	PR	13.1%	185	11	196	117	19	136	144%	
D	171	0	0	0	0	N/A	13.1%	0	0	0	584	6	590	0%	
D	172	0	499	265	0	PR	13.1%	174	10	184	529	19	548	34%	
D	173	0	820	436	0	PR	13.0%	286	16	302	0	19	19	1590%	
D	184	3	5	3	4	RES	10.5%	2	0	2	0	2	2	97%	
D	185	0	162	86	0	PR	10.5%	58	0	58	0	7	7	830%	
D	186	0	0	0	0	N/A	10.5%	0	0	0	0	4	4	0%	
D	187	0	0	0	0	N/A	10.5%	0	0	0	0	16	16	0%	
D			4	7,879	4,186	6		2,745	154	2,899	2,336	186	2,522	115%	
E	11	0	739	393	0	PR	9.4%	269	15	284	24	0	24	1182%	
E	12	157	0	0	220	RES	9.4%	0	0	0	58	8	66	0%	
E	13	0	0	0	0	N/A	9.4%	0	0	0	0	32	32	0%	
E	15	0	0	0	0	N/A	9.4%	0	0	0	142	67	209	0%	
E	16	0	0	0	0	N/A	9.4%	0	0	0	245	39	284	0%	
E	18	0	0	0	0	N/A	9.4%	0	0	0	0	55	55	0%	
E	22	1328	27	14	1,859	PR	9.4%	10	1	10	0	45	45	23%	
E			1485	766	407	2,079		279	15	294	469	246	715	41%	
Grand Total			1,689	55,632	29,555	2,365		19,428	1,546	20,974	18,619	1,453	20,072	104%	

PR-PRIVATE OFFICE	3.75	SPACES/100 BML	16%
GO-GOVT OFFICE	12.00	SPACES/100 BML	54%
RE-RETAIL	12.00	SPACES/100 BML	153%
MX-MIXED USE	10.00	SPACES/100 BML	208%
GP-PUBLIC USE	16.00	SPACES/100 BML	0%
AUTOS PRESENT DURING PEAK			0.25

PEAK PERIOD EMPLOYEES PRESENT	60.0%
PEAK PERIOD ABSENTEE RATE	15.0%
ASSUMED AUTO-OCCUPANCY	1.25
ADDITIONAL NON-TRANSIT, NON-AUTO TRIP %	5.0%
TOTAL EMPLOYEES	55,632
ADJUSTED EMPLOYEES	29,555

OBSERVED PARKING DEMAND - TOTAL (CARS)	20,072
MODELLED PARKING DEMAND - VISITORS (CARS)	1,546
MODELLED PARKING DEMAND - RESIDENTS (CARS)	0
MODELLED PARKING DEMAND - EMPLOYEES (CARS)	19,428
MODELLED PARKING DEMAND - TOTAL (CARS)	20,974
SURPLUS/(DEFICIT) IN MODELLED TO OBSERVED	902
RATIO OF MODEL DEMAND TO OBSERVED DEMAND	1.04
RATIO OF VISITOR DEMAND TO EMPLOYEES (SPACES PER EMPLOY)	0.08

PARKING STUDY OF THE GREATER MILWAUKEE AREA
SECTION II - FUTURE PARKING NEEDS

12/01/2010

APPENDIX TABLE 2 - SUB-AREA OFFICE INVENTORY

DT Plan Subarea	ID Building	Parcel Size (SF)	Total Building Sq Ft.	Approx Ground Floor SF	Approx Lot Coverage (%)	# of Stories	Primary Use	Primary Ground Floor Use
Sub-area A								
A	Ameritech Center	26,180	272,240	15,708	100%	6 to 19	Office	Commercial
A	Ticket King/Schwab	9,600	67,200	9,600	100%	7	Office	Commercial
A	809 Broadway Building	20,852	66,726	0		4	Government	Government
A	Andrew Hars Building	7,200	43,632	0		9	Office	Service
A	Frank Zedler Municipal Building	71,028	190,550	0	90%	11	Government	Government Service
A		15,240	108,214	12,024	79%	9	Office	Commercial
A	Matthew Keenan House	7,200	24,684	6,171	86%	4	Office	Office
A	Madison Medical Building	15,240	160,432	15,240	100%	8	Office	Commercial
A		6,540	13,265	6,633	101%	2	Office	Office
A		11,400	57,000	11,400	100%	5	Office	Office
A		12,000	54,260	9,043	75%	6	Office	Office
A	Mw Center Office Tower	26,738	378,717	0	54%	26	Office	Office lobby
A		3,900	30,848	3,085	79%	10	Office	Office
A		2,330	6,522	2,330	100%	3	Office	Office
A		2,524	6,080	2,400	95%	3	Office	Office
A		1,440	21,240	1,140	80%	3	Office	Office
A		4,791	9,200	3,600	76%	3	Office	Office
A		3,400	6,000	2,000	83%	3	Office	Office
A	Monroe Building	14,370	44,194	0		4	Class B office	Office
A		12,000	52,544	6,000		6	Office	Office
A		2,400	3,268	2,240	93%	2	Office	Office
A		4,920	7,834	4,000	93%	2	Office	Office
A		6,000	10,716	5,683	95%	2	Office	Office
A		14,400	46,607	7,200			Class B office	Bank
A	First Financial Centre	15,800	153,201	7,900			Office	Office
A	735 N Water	10,925	81,039	13,507	124%	6	Office	Office
A	735 N Water	25,205	300,871	18,804	75%	16	Office	Commercial
A		12,000	96,000	3,322	28%	8	Office	Office
A		4,325	10,025	3,342	77%	3	Office	Office
A		1,801	4,617	1,391	77%	3	Office	Delishious
A		2,001	4,000	2,000	100%	3	Office	Office
A	M & I Building						Office	Office
A	MBI Bank	63,600	492,954	24,648	39%	20	Office	Retail Bank
A	Heartland Funds	18,000	73,250	14,650	92%	5	Office	Office
A	Associated Bank at Mw Center	15,936	30,793	10,264	64%	3	Office	Retail Bank
A	Milwaukee City Hall	27,064	351,798	43,975	162%	8	Office	Office Lobby
A		14,562	29,124	0	N/A	4	Office	Office Lobby
A		8,400	16,840	7,400	86%	2	Office	Office
A	Cathedral Place	1,957	19,000				Office, Residential	Office, Residential
A	Cathedral Place	0					Office, Residential	Office, Residential
A	Cathedral Place	17,441	209,000	11,111	64%	18	Office, Residential	Lobby, Commercial
A	100 East Building	27,526	422,865	13,763	45%	34	Office	Office Lobby
A	First Financial Bldg.	15,800	153,201	16,000	100%	14	Office	Office
A	250 Plaza	40,275	332,148	18,607	41%	20	OFFICE	Commercial
A	306-312 E Wisconsin and 706-714 N	14,400	68,655	7,200			Office	Office
A	Wells Building	12,000	117,166	6,000			Office	Office
A		6,560	39,360	6,560	100%	6	Office	Commercial
A		8,040	16,370	4,020			Office	Office
Sub-area B								
B		7,200	25,966	7,200	100%	4	Office	Commercial
B	Loyalty Building (611 Building)	3,600	13,480	3,600	100%	4	Office	Commercial
B		21,600	79,609	10,800		6	Office	Office
B		3,600	13,440	3,360	100%	4	Office	Commercial
B		9,000	27,000	9,000	100%	3	Office	Vacant
B		2,400	3,776	1,888	79%	2	Office	Vacant
B		3,600	14,400	3,360	100%	4	Office	Vacant
B		1,895	4,143	2,064	100%	2	Office	Vacant
B		1,252	2,737	1,359	100%	2	Office	Vacant
B	Michell Building	9,600	42,600	8,520	89%	5	Office	Commercial
B	Grand Avenue Club Building	7,069	35,000	3,535	N/A	N/A	Office	Office
B	Grant Exchange / Meeke Building Grant	14,400	45,975	9,195	64%	5	Office	Office
B		7,200	39,423	6,571	91%	6	Office	Office
B		18,240	80,525	16,105	88%	5	Office	Office
B	Johnson Controls Inc.	91,440	444,549	63,507	69%	7	Office	Office
B		28,733	50,000	14,367			Office	Office
B		16,200	65,106		100%	4	Office	Office
B		4,800	10,000	5,000	104%	2	Office	Office
B		4,800	16,800	4,200	88%	4	Office	Office
B		6,000	18,000	6,000	100%	3	Office	Office
B		8,400	42,000	7,000	83%	6	Office	Office
B		2,400	8,300	2,075	86%	4	Office	Office
B		4,740	14,400	4,800	101%	3	Office	Office
B	Chase Tower	41,186	472,507	21,478	52%	22	Office	Retail
B	Kirk's Building	8,400	40,870	10,168	121%	4	Office	Office
B		8,287	16,000	4,144			Office	Office
B	Railway Exchange Building	3,977	48,000	1,989	101%	12	Office	Office
B		16,200	51,914	10,000	62%	3	Office	Office
B		7,200	28,800	7,200	100%	4	Office	Office
Sub-area C								
C		7,414				3	Office	Social Service
C		22,200	120,444	20,074	90%	6	Office	Office
C	WE Energies Co.	144,800	49,775	8,206	6%	6	Office	Utility Company
C	Public Service Building - WE Former Blue Cross Building	64,126	256,504	64,126	100%	4	Office	Office
C		64,000	236,218	23,622	37%	10	Office (vacant)	Office
C		18,750	111,894	18,750	100%	8	Commercial / Office	Retail - clothing/Optical
C	Empire Building	29,707	121,612	9,355	31%	13	Office	Restaurant
C	Empire Building	29,707	121,612	9,355	31%	13	Office	Restaurant
C		3,425	26,350	2,928		9	Office	Office
C		34,627	81,685	10,637		8	Office	Bar/Restaurant
C		2,560	12,800	2,560	100%	5	Office	Vacant
C		2,520	12,560	2,510	100%	5	Office	Commercial - Printing / Sign
C		7,440	24,000	6,000	81%	4	Office	Office
C		7,800	13,106			2	Office	Law Offices
C	Germania Building	14,662	79,188	9,859	67%	8	Office	Commercial - Marketing
C	ASQ Building	13,098	73,442	6,549		8	Office and	Office lobby / bar
C	ASQ Building	7,890	89,639	3,945		8	Office and	Hotel, Bookstore
C	ASQ Building	18,937	106,202	9,469		8	Office and	Hotel, Office
C	ASQ Building	15,307	86,023	7,654		8	Office and	Hotel, Office
C	Rosner Building	16,843	108,334	15,476	92%	7	Office	Bar/Restaurant and vacant space
C	201 Building	24,000	105,078	13,135	55%	8	Office	Vacant Office
C	Warner Building	21,600	104,965	14,994	69%	7	Office	Vacant Theater
C		6,025	16,410	5,470	91%	3	Office	Retail - clothing
C		6,025	16,410	5,470	91%	3	Office	Retail - clothing
C		14,167	40,924	28,334	100%	10	Office, Residential	Dept. Store retail
C	Shops of Grand Avenue	10,714	30,927	21,428	100%	10	Office, Residential	Dept. Store retail
C	Raus Federal Building	97,000	693,963	49,568	51%	14	Office	Retail - 9,380/Rest. - Res Appts, Office and
C	Boston Store Building	26,045	170,449	26,045	100%	Levels 3-8	Office	Dept. Store retail
Sub-area D								
D		62,297	275,036	30,560	58%	9	Office	Office
D		16,500	80,960	20,238	123%	4	Office	Office
D		14,960	45,089	7,480			Office	Office
D		14,960	45,089	7,480			Office	Office
D	Northwest Mutual Tower or Northwest Mutual Place	95,832	542,005	28,527		19	Office	Office
D	Lowis Center	89,200	92,026	44,600			Office	Center
D		1,290	2,573	1,287	100%	2	Office	Office
D		3,400	5,129	2,565	75%	2	Office	Office
D		2,400	2,014	1,007	42%	2	Office	Office
D		60,000					Office	Office
D		7,200	19,272	6,424	89%	3	Office	Office
D	611 East Wisconsin		133,000				Office	Office
D	Northwestern Mutual	91,440	322,007	40,251	44%	8	Office	Office
D	US Bank Center	108,140	1,077,607	25,657	24%	42	Office	Office
D	Northwestern Mutual Place	61,954	227,000		48%	8	Office	Office
D	875 E Wisconsin	29,015	29,016				Office	Office
Sub-area E								
E		9,642	9,642				Surface	Parking Lot

**SECTION III – POLICY MAKING
ECONOMIC DEVELOPMENT AND PARKING**

**CITY OF MILWAUKEE
DEPARTMENT OF CITY DEVELOPMENT**

PREPARED BY:



**LANSING
MELBOURNE
GROUP**

**SECTION I – EXISTING CONDITIONS
SECTION II – FUTURE CONDITIONS
PRINTED UNDER SEPARATE COVER**

DECEMBER 2010

TABLE OF CONTENTS

1. OVERVIEW 1

2. INVESTMENT POLICY FOR PROJECTS AND PARKING 3

 2.1. Current Policy and Processes 3

 2.2. Development Investment Policy or “Funding the Gap” 4

 2.3. Risk Assessment Policy 6

 2.4. Decision Making Tree 6

 2.5. Public Transit and Parking Policy 8

 2.6. New Parking Facility Planning Policy 10

 2.6.1. Existing Conditions - Summary 10

 2.6.2. Priority Subareas 12

 2.6.3. Future Conditions - Summary 13

 2.6.1. Priority Subareas 17

 2.7. Tax Increment and/or Special Assessment (Improvement) Districts Policy 17

 2.7.1. Parking Overlay Districts 18

 2.7.2. Common Uses/Development Guidance 18

 2.7.3. Implementation and Creation 19

 2.7.4. Administration 19

 2.7.5. Report Card: Overlay Zoning 20

 2.7.6. Examples - Green Bay, Manitowoc, Sheboygan & Madison, WI 20

 2.8. Long-Term Master Planning Policy 21

3. DIMENSIONS OF PARKING – TRADITIONAL FINANCING 22

 3.1. General Obligation Bond (GO Bond) Financing 22

 3.2. Revenue Bond Financing 22

 3.3. New Market Tax Credits 23

 3.3.1. Eligibility 24

 3.4. Public Private Partnership Approach (3PA) 25

 3.4.1. Example - City of Miami Beach 25

 3.5. Sale/Leaseback to Investment Group 25

4. FUNDING THE GAP 27

 4.1. Development Ombudsman 27

 4.2. Payment-in-Lieu 28

 4.2.1. Example - City of Melbourne, Florida 29

 4.3. Transfer of Development Rights (TDR) 30

 4.4. Development Incentives 30

 4.4.1. Example - City of Charlotte, NC – Center City 30

4.4.2. Example - City of West Palm Beach, FL 31

4.4.3. Example - City of Pompano Beach, FL 32

4.5. Parking Tax 33

4.5.1. Example - City of Pittsburgh, PA 33

4.6. Smart Growth Surcharge 34

4.6.1. Management Techniques 36

4.6.2. Capital Expenditures and Green Buildings 37

4.6.3. Public/Private Partnerships (3P) 37

5. MISCELLANEOUS PARKING DEVELOPMENT PROCESSES AND DEFINITION OF TERMS39

5.1. Legal Considerations 39

5.2. Financial Feasibility Study 40

5.3. Bond Ratings 43

5.4. Official statement and Bond Insurance 44

5.5. Development Costs 45

5.5.1. Fixed Costs 45

5.5.2. Variable Costs 45

6. ENDNOTES47

1. OVERVIEW

In the post-World War II period, when automobile sales and the need for new parking facilities skyrocketed, cities searched for ways to finance off-street parking facilities. At that time, most cities had strong Central Business Districts (CBD) with a concentration of retail facilities. Decentralized shopping centers, except for occasional neighborhood business districts, were relatively unimportant. Major department stores and specialty shops were concentrated downtown. Accordingly, patron parking demand was high in the CBD. Most cities large enough to have a CBD installed parking meters, with the stated purpose of "controlling curb parking." It soon became apparent that on-street meters were generating substantial revenues that could be used for parking purposes or could be placed in the general operating funds of the city.

The income derived from on-street meters became a popular source of funds to support new off-street facilities, both parking lots and parking structures. Many of the off-street parking facilities that were built in the late 1940's and the early 1950's were intended to provide parking for patrons and visitors to the CBD and consequently, it was desirable to operate them at low parking fees. With on-street meters priced at one penny for 12 minutes or a nickel or dime for an hour, it was not possible to build off-street facilities that would be self-amortizing if adequate fees were charged. Therefore, on-street parking meters became the obvious source of supplemental funds that permitted cities to build off-street facilities, to charge low fees in the facilities, and to amortize their cost through the supplemental funds generated by on-street meters.

One of the most popular methods of financing off-street facilities was and continues to be revenue bonds. Although general obligation (G.O.) bonds were available, most cities preferred to reserve their use (since the maximum amount of G.O. bonds was limited in most cities) to other public works that did not have the opportunity to generate revenues. General obligation bonds were backed by the tax base of the entire community and while the community might favor the use of city-wide taxes to support a new city hall, it usually felt that downtown parking improvements would benefit the downtown and should be paid for by downtown interests and not by the city at large.

In developing the revenue bonding details to support new parking facilities, the debt coverage ratio was used to demonstrate the potential strength of the bond issue to the potential bond buyers. The debt coverage ratio is defined as the ratio of the net income of a parking system divided by the annual debt service requirements. As noted above, low parking fees in a new off-street lot or garage were usually inadequate to provide a satisfactory debt coverage ratio. However, when the net income of the on-street meters was added to the net projected for the off-street parking facility, the debt coverage ratio was, in most cases, adequate to show a respectable debt coverage ratio. The "rule of thumb" minimum debt coverage ratio that bond counsel or underwriters anticipate for financing revenue bonds is 1.25. In other words, the estimated net revenue produced by the system was estimated to be 25 percent greater than the debt payment requirements for each year of the bond term. In order to protect the bond buyers, the bond indenture usually specified that the on-street meters must be maintained in order to continue the availability of supplemental funds over the

term of the bonds. This provision obviously limits traffic engineering measures to modify on-street parking regulations.

Numerous parking lots and parking garages were constructed by cities in the U.S. using this general financing formula.

1. The income from the new parking facility was pledged to debt retirement.
2. The income from any existing off-street facilities was pledged to debt retirement.
3. The income from on-street meters was also pledged to the debt retirement.
4. The total net income was shown to be at least 25 percent greater than the annual debt service requirements during the term of the bonds.

Additional safeguards were normally included in the bond indenture specifying the continuation of on-street meters, parking rate covenants and special tests that would be applied in order to sell additional *pare passé* bondsⁱ.

While this general formula for financing parking facilities worked well at the outset, it began to fall apart within a few years thereafter. The problems included:

- The need to build additional parking structures. In many cases, the surplus income from the on-street meters was sufficient to cover one parking structure but not a second or third one.
- With an increase in traffic volumes, it frequently became necessary to eliminate or otherwise restrict curb meters to expedite traffic movement.

One of the most challenging issues, however, was the decentralization of retail facilities caused by the development of regional shopping centers. In city after city, the major department stores (and in turn, the shops that depended upon the department stores to attract shoppers) shifted to the suburban shopping center, leaving the downtown area almost devoid of major retail generators. As the demand for patron parking was reduced, the income derived from on-street meters, off-street lots, and garages diminished to the point where net incomes were too low to maintain the specified debt coverage ratios. Most cities took various steps to provide funds to meet the debt service payments of their revenue bonds even though there was no legal commitment to do so. However, other cities were unable to do this and as a consequence, some of the bond issues defaulted. While the number of parking revenue bond issues in default was relatively few, it was enough to shake the confidence of those who might buy such bonds in the future.

In most situations, it is no longer possible to sell revenue bonds that are supported solely by the pledge of income from parking facilities. There are exceptions, for example, in a strong CBD with coverage of 2.0 or 3.0 from historical sources alone, it may be possible to back the new bonds from parking system funds alone. However, it is necessary to provide additional backup funds if the revenues from the parking system ever become inadequate to cover debt payment. The sources of backup funds vary from city to city, depending upon the nature of local financing and surplus funds. Occasionally, surplus funds from the sewer system, water system or a special tax is used.ⁱⁱ

2. INVESTMENT POLICY FOR PROJECTS AND PARKING

This chapter presents several policy recommendations for adoption by the City related to Parking Planning. In terms of investment, siting a new garage, deciding when to build or level of participation, variances etc., the two most significant decisions are relegated into a:

- 1) Quantitative measurements – which can be counted, measured and/or stacked in a column such as new employment, new income taxes, new property taxes, economic spinoff from investment; and
- 2) Qualitative measurements – which represents the softer side and is not easily quantified. Qualitative aspects include projects that maintain employment, or create a new destination or attraction, or a development that is necessary for the area but developed by the private sector such as facilities for the arts and parks. Qualitative projects might include retaining a branded corporate headquarters, or retention of a large employer, or other aspects of development that might not increase the quantitative measures but maintain or minimize the downside. Any development that significantly adds to the character and quality of life for the residents of the City including economic development through the arts may fall into the qualitative realm. However, nearly all projects have a quantitative and a qualitative aspect and should be assessed in that light. Ultimately, decisions on public investment should have a strategy that can clearly identify the economic advantages of the investment and ultimately a positive return on investment. That positive return may be simple to quantify or may need to factor in the qualitative aspects in order to pencil out as a reasonable investment of public funds.

2.1. CURRENT POLICY AND PROCESSES

The City of Milwaukee recognizes the need to support economic development through participation as a partner with the private sector. The City has developed numerous methods to achieve this goal with the intent of creating jobs and increasing property value with successful financially feasible projects. This in turn leads to the creation of momentum and density, which in turn leads to more development all the while carrying the underlying goal of increasing the quality of life for Milwaukee residents. There are numerous sources of financial assistance through the City of Milwaukee including:

- Bond Financing;
- Milwaukee Economic Development Corporation (MEDC);
- Development Fund; and
- Tax Increment Financing (TIF).

The use of these funds is well understood and used by the City so they will not be defined herein. As typical in the use of public funding, there are also “development strings” tied to the use of these funds including the creation of:

- Development Agreements;
- Emerging Business Enterprise Agreements;
- Resident Preference Program Hiring Agreements;
- Job Benchmarks for Loan Forgiveness; and
- Project Design Approvals.

These “strings” are also well understood and commonly used by various City entities and are necessary to maximize the investment potential of public funding. To obtain finance approval of City-sponsored funding, there are also several steps that need to be accomplished depending on the finance vehicle:

- Bonds require a public hearing and sponsorship by the City’s Redevelopment Agency or Common Council;
- MEDC loans require approval by the MEDC Committee;
- Development funds require a public hearing sponsored by Common Council; and
- Tax increment financing requires a public hearing and sponsorship by the City’s Redevelopment Agency or Common Council.

To further protect and leverage their investment, the City has a regulatory process in-place to control permitted, limited and special use as well as prohibited zoning, zoning-by-right, zoning appeals, historic preservation, permitting and design control including the International Building Code, city and state law requirements and licenses.ⁱⁱⁱ

However, what is not well documented or understood as a policy is the decision process used to make investment in either existing or new development projects. The following provides one example of the kind of quantitative methodology that could be adopted as policy by the City when making an investment decision.

2.2. DEVELOPMENT INVESTMENT POLICY OR “FUNDING THE GAP”

The following presents two examples of policy implementation for assessing the level of investment needed by the public sector that provides either a quantitative or qualitative return on investment. That return can be either be quantitatively measured or measured in terms of improvement in quality of life, attractiveness of development, creation of a destination, public space, cultural qualities or other qualitative measures. Since there are public policies in-place to determine whether or not a project or development has qualitative benefits (via public information and input), the following focuses on the quantitative measures.

There are a series of basic policies relative to parking and transportation that should be formally adopted by the City Commission, Department of Community Development (DCD), Public Works or Finance. Each is presented and discussed below. The remainder of the report provides related detail and supporting examples of the importance of these policies.

As discussed above, public investment in development should be guided by the ability to generate positive earnings on the City’s investment. There will always be other factors to consider that cannot be readily quantified. The typical *policy* question considered by the City of Milwaukee on new development projects is:

How should the City determine the level of investment that provides a return for the city and residents?

At the time this report was researched and written, the city had no clear policy on how this was addressed from project to project. In turn, the development community has no clear direction on what assistance is feasible to request from the City and as a result, some projects stagnate, others wither and die and the most persistent may move forward.

These aspects can be addressed by the policy system already in-place that requires public involvement, input from technical staff, review by regulatory agencies and guidance provided by the City's leadership.

The example shown to the left provides a simplified snapshot of how the DCD, other City departments, MEDC or the appropriate sponsor could use to evaluate an opportunity for investment in a new development. This example is not intended to be comprehensive or complete, but to illustrate that quantifying an investment and determining the impact of that investment should not be difficult. For a municipality, the actual return is not critical as long as the City is able to show that the investment pays for itself and that the development is in line with the goals and objectives of the City plan.

As shown in the theoretical example, a 110,000 square foot (sf) is constructed with a floor area ratio of 5.0 on 1/2 acre of land. The constructed value is approximated at \$23 mm with land costs. If the development feasibility required City assistance in the form of a new parking structure, the City could invest approximately \$6.2 mm in new parking and generate a positive return over a period of 30 years. To generate this return approximately 57 percent of the available property taxes of \$8.89 per \$1000 of value would be necessary. The City needs to determine if this is a reasonable use of City tax generation. The point of the exercise is that the value of the development can be assessed in a quantitative manner and then decisions made based on an adopted policy.

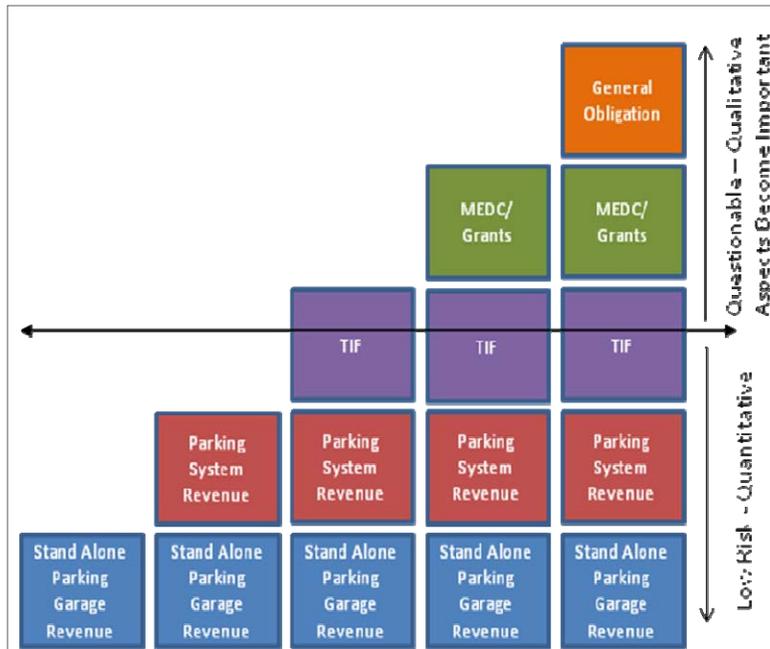
Furthermore, at the bottom of the example, under the title Other, are additional positive benefits that could be quantified but are beyond the scope of this study. As noted, new development creates job growth and generates income, corporate taxes and new residents within the City paying property taxes and spending disposable income in the City. The economic multiplier is about 1.65 assuming consumers spend approximately 91 percent of the average income, or in this case, about \$13.6 mm annually. This is a combination of all spending, including purchases, housing, sales taxes, property taxes, income taxes,

Assessed Property Tax Value	
Building	\$22,000,000
Land (FAR of 5)	<u>\$1,000,000</u>
Total	\$23,000,000
Property Tax Rate	
Rate	\$ 8.89 per \$1000
City Taxes Generated	\$204,470
NPV₍₃₀₎	\$3,499,625
Parking Costs	
Employees	260 spaces
Visitors	40 spaces
Total Spaces Required	300 spaces
Total Cost to Construct	\$6,200,000 including land
Level Debt Service (30 yrs)	\$450,423 per year
Total O&M	\$180,000 per year
NPV₍₃₀₎ Costs	\$9,280,806
Revenue	
Permits and ST	\$425,200 per year
NPV₍₃₀₎ Revenue¹	\$7,277,549
NPV₍₃₀₎ NOI - Parking²	\$2,003,257
NPV₍₃₀₎ NOI Parking and Taxes	\$1,496,367
Percent of Property Taxes Used	57%
Other	
Corporate tax	varies
Average per capita income ⁴	\$34,850
Annual multiplier on income ⁵	1.65
per employee	\$52,327
total for example	\$13,605,092
Housing property taxes	included above
City portion of State sales tax	included above
NPV(30) = Net Present Value over 30 years	
¹ \$200/sf for construction and 110,000gsf of office, FAR of 5.0	
² NOI=Net operating income & assumes 250 permits @\$125/month and visitor revenue @\$1/hr	
³ assumes use of parking NOI plus property taxes	
⁴ 2010 - United State Dept of Labor, Bureau of Statistics	
⁵ Federal Reserve Bank of Atlanta, Statistical Abstract of the United States, 1992	

etc. The Federal Reserve Bank indicates about 10 percent of this amount is returned in local in property and sales taxes, or about \$1.3 mm annually. It is not the intent of this report to recommend to the city whether or not a specific project should be approved or not, but provide tools that can be applied equally across all potential projects.

2.3. RISK ASSESSMENT POLICY

The following chart illustrates the risk associated with economic support of a project in terms of pledged revenue necessary to ensure feasibility. As more revenue sources are required for a project and are necessary to ensure feasibility, risks increase and the projects viability is more dependent on “stacked” sources and



pledges of revenue and the decision to invest public funds becomes has to become more *qualitative* rather than quantitative.

This same methodology can be used for residential, adaptive reuse and other redevelopment as well as to quantify the impact of an employer or business that may be threatening to move from the downtown to the suburban areas unless the City can

participate in their expansion and/or growth.

Once again, while quantifying the economic benefit of a development proposal is critical to determining the level of public investment, there are other less tangible benefits associated with some projects that could benefit the City long-term, but may not meet the investment and tax generation needs of the City. Such examples could be adaptive reuse of historic buildings that create residential or commercial space where vacant space currently exists or the attraction and draw that a branded destination-type development could have in the downtown.

2.4. DECISION MAKING TREE

The following figure illustrates a good example of a decision making matrix^{iv} for working through a the process of deciding if, how, when and why to support parking with public investment as part of incentivizing economic development. There are several terms used in the matrix that have not been discussed herein and are specific to enabling legislation and local ordinances in the State of New Jersey, where the matrix was developed (see endnote).

However, as shown the matrix process can be organized into a policy tool that will standardize the means in which the City decides if and when to be involved as well as the level of involvement necessary for a project.

2.5. PUBLIC TRANSIT AND PARKING POLICY

As presented in numerous public information meetings and public documents, the Milwaukee Streetcar could provide immediate relief as well as long-term relief and options for supporting economic growth of the downtown. Any addition of public parking in the downtown should take into account the streetcar and benefits of locating within the route corridor. This may not be possible for some of the adaptive reuse of historical buildings but should certainly be considered with larger garages. The following is a brief summary of the goals and objectives of the streetcar system that is currently proposed.^v The Milwaukee streetcar system will be a world-class, cost-effective and environmentally-friendly transportation alternative that will:



1. Improve transit mobility to and between key residential, employment and other activity centers;
2. Support the goals of the Downtown Plan and Comprehensive Neighborhood Plans;
3. Promote economic development and growth and creates predictability and reduced travel times;
4. Attracts ridership
5. Is easily expandable
6. Integrates with existing and future transportation plans; and
7. Encourages pedestrian safety.

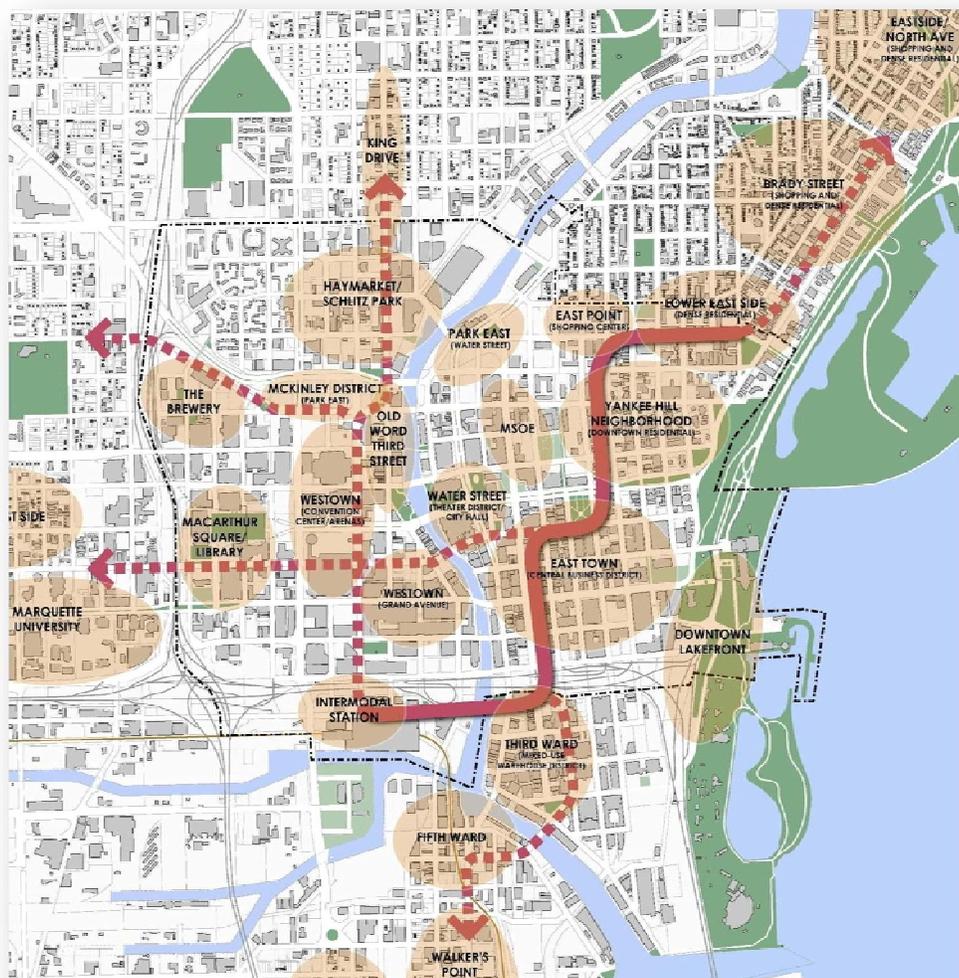


The potential ridership population consists of a 550,000 Amtrak riders, 77,500 downtown employees, 5,500,000 annual visitors, supports 726,500 hotel stays and 14,900 downtown residents. The preferred alignment is shown below.



As shown in the figure the route passes alongside of, or within two blocks of numerous parking garages (nine) and provides access to much of the downtown area. Also noted is the proposed system of feeder and rapid transit routes that will serve areas not immediately served by the preferred alignment of the streetcar.

Operations for the preferred alternative are anticipated to begin by spring of 2014. The streetcar is important to supporting future parking needs by, creating predictability, which is a factor developers understand and can rely upon. If an expansion to the parking system is proposed, than access to the streetcar route should be a major factor in locating a garage. However, this is not always possible, especially in areas where the density or ownership of land does not provide this option. A few examples are provided in the next section.



2.6. NEW PARKING FACILITY PLANNING POLICY

Based on data and recommendations included in Sections I and II of this study, there are several areas in the downtown that require guidance and leadership by the City relative to supporting development through the provision of parking facilities. This recommendation does not specifically address the long-term ownership or partnering agreements that could be put in-place, but only areas where garages may need to be constructed and polices that may need to be enacted.

In summary, the existing conditions data on office occupancy summary was adjusted to reflect 75% occupancy and then a series of alternative development scenarios were overlaid on the parking system to determine the impact. Those development scenarios are summarized below along with the final table of estimated areas in the study area of parking deficiencies.

2.6.1. EXISTING CONDITIONS - SUMMARY

The parking supply in the downtown Milwaukee study area is generally sufficient in meeting the parking demands generated during the peak weekday time period for the current land uses located in the downtown. This finding is based on current conditions in the downtown, including current trip levels, mode split, auto-occupancy, parking enforcement levels, and parking management policies. The focus of this section of the report is more to set a baseline for future conditions analyses relative to proposed development and future parking needs.

Many times, adequate parking can be obtained by modifying the location of, and ratio between, short-term parking and long-term parking. The addition of on-street parking may also help to provide more short-term parking spaces, similar to the addition of angled parking on Michigan Avenue through the removal of the center left turn lane. These methods have already been implemented by the City over the last decade to much success. In addition, changes in enforcement polices, providing better options for off-street (employee) parking and more accessible on-street (short-term) parking has increased revenues significantly. Not only is the parking system financially self-supporting, there appears to be an adequate number of parking spaces to meet existing land use needs and the rates are affordable, if not low, relative to cities of similar size and composition.

The parking supply in the downtown Milwaukee study area is generally sufficient in meeting the parking demands generated during the peak weekday time period for the current land uses located in the downtown. This finding is based on current conditions in the downtown, including current trip levels, mode split, auto-occupancy, parking enforcement levels, and parking management policies. The focus of this section of the report is more to set a baseline for future conditions analyses relative to proposed development and future parking needs.

Many times, adequate parking can be obtained by modifying the location of, and ratio between, short-term parking and long-term parking. The addition of on-street parking may also help to provide more short-term parking spaces, similar to the addition of angled parking on Michigan Avenue through the removal of the center left turn lane. These methods have already been implemented by the City over the last decade to much success. In addition, changes in enforcement polices, providing better options for off-street (employee) parking and more accessible on-street (short-term) parking has increased revenues significantly. Not only is the parking system financially self-supporting, there appears to be an adequate number of parking spaces to meet existing land use needs and the rates are affordable, if

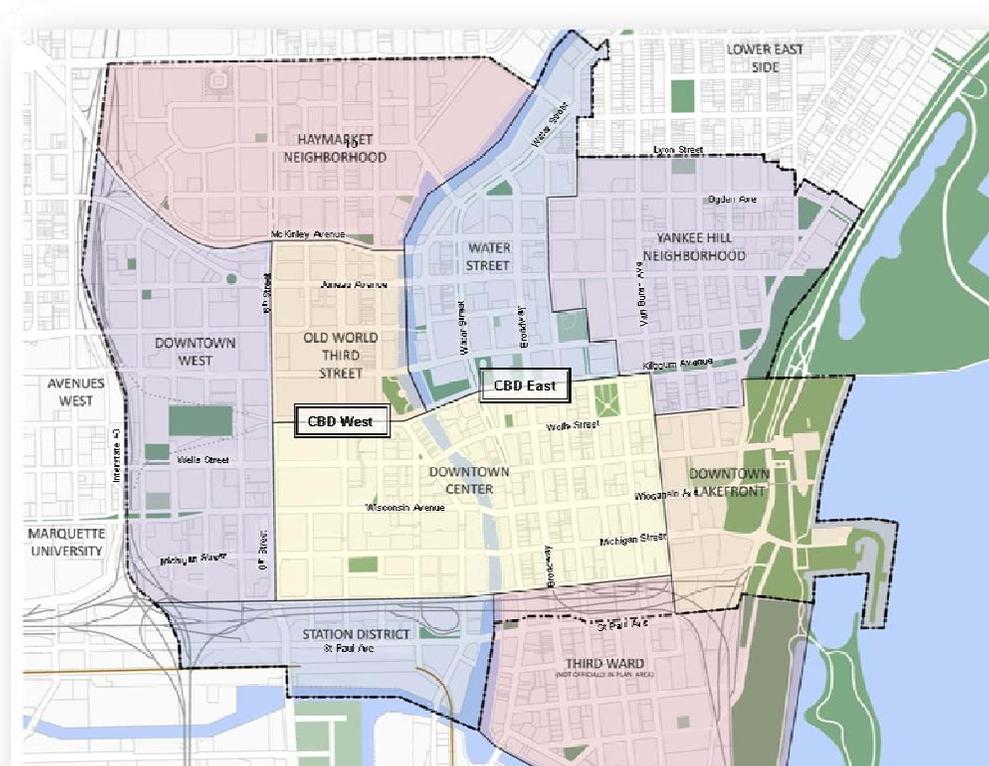
not low, relative to cities of similar size and composition.

The following graphic depicts the study area under consideration and is followed by a table that provides a brief summary of the current parking conditions.^{vi}

PARKING ANALYSIS STUDY AREA

The study area created for the parking analysis was based the City's Downtown Plan Districts. The City defined a more compact study area for this Parking Study to expedite the development of recommendations to be used in conjunction with the other planning studies that are underway. The revised study area, referred to hereafter as the "Study Area," is bordered generally by Lyon Street, the Milwaukee River and McKinley Street on the north, Prospect Avenue and Lincoln Memorial Drive on the east, St. Paul Avenue on the south and Interstate 43 on the west as shown above.

As noted above, the Study Area is comprised of two larger geographic sections, the Central Business District East (CBD East) area comprised of the portion of the CBD located east of the Milwaukee River and the Central Business District West (CBD West) area comprised of the portion of the CBD located west of the Milwaukee River.



The CBD East and CBD West were further subdivided into 13 districts as listed below and depicted in the above figure.

The CBD West geographic area is bounded by the Milwaukee River (east side),

McKinley Street (north side), St. Paul Avenue (south side) and I-43 (east side).

1. District C is referred to as the Westtown/Grand Avenue District;
2. District F is referred to as the Westtown/Old World 3rd District;
3. District G is referred to as the Library District;
4. District H is referred to as the Station District;
5. District I is referred to as the MacArthur Square District; and
6. District O is referred to as the Brewery (Pabst) District.

The CBD East geographic area is bounded by the Milwaukee River (west side), Lyon Street (north side), St. Paul Avenue (south side) and Prospect Avenue/Lincoln Memorial Drive (east side).

1. District A is referred to as the East Town North District;
2. District B is referred to as the East Town South District;
3. District D is referred to as the Lakefront District;
4. District E is referred to as the Water Street District;
5. District J is referred to as the Yankee Hill West District;
6. District K is referred to as the Yankee Hill East District; and
7. District L is referred to as the Park East/Upper Water Street District.

2.6.2. PRIORITY SUBAREAS

In addition, for purposes of this study, the City identified eight (8) geographic areas within the Study Area that represent “priorities” and are referred to hereafter as “Priority Areas” (PA) and will be addressed in the Future Conditions summary report.

- Priority Area A - Michigan/Broadway Area;
- Priority Area B - Lakefront Office Area;
- Priority Area C - East Town Area;
- Priority Area D - West Town Retail Area;
- Priority Area E - Park East west of River;
- Priority Area F - Park East east of the River;
- Priority Area G - MacArthur Square Area; and
- Priority Area H - Station Area.

The areas within the PAs were the focus of Part II - Future Conditions study regarding potential new development and parking needs. Over the last decade or so, the City of Milwaukee’s parking system has been an example of successful growth and management through public/private partnerships, use of state-of-the-art technology and by pursuing a philosophy that has leveraged parking as an economic development tool with a great deal of success.

However, the next level of downtown growth and parking needs is upon the City. Downtown development is as dynamic today as ever amid private/public partnerships, economic downturns, uncertainty of oil and gas prices, and less than adequate transit options. The ability to plan and support successful development must be rooted in an implementation and financial plan that can react to changes in development trends and needs. A critical component of future development needs is the high cost of parking, not only how much parking to build, but who builds it, pays for it, uses it and operates it.

The following is a summary of the future conditions analysis, which is in turn, followed by the section of Policy Making.

2.6.3. FUTURE CONDITIONS - SUMMARY

The following figure depicts potential development projects that are also summarized in the tables that follow the figure.

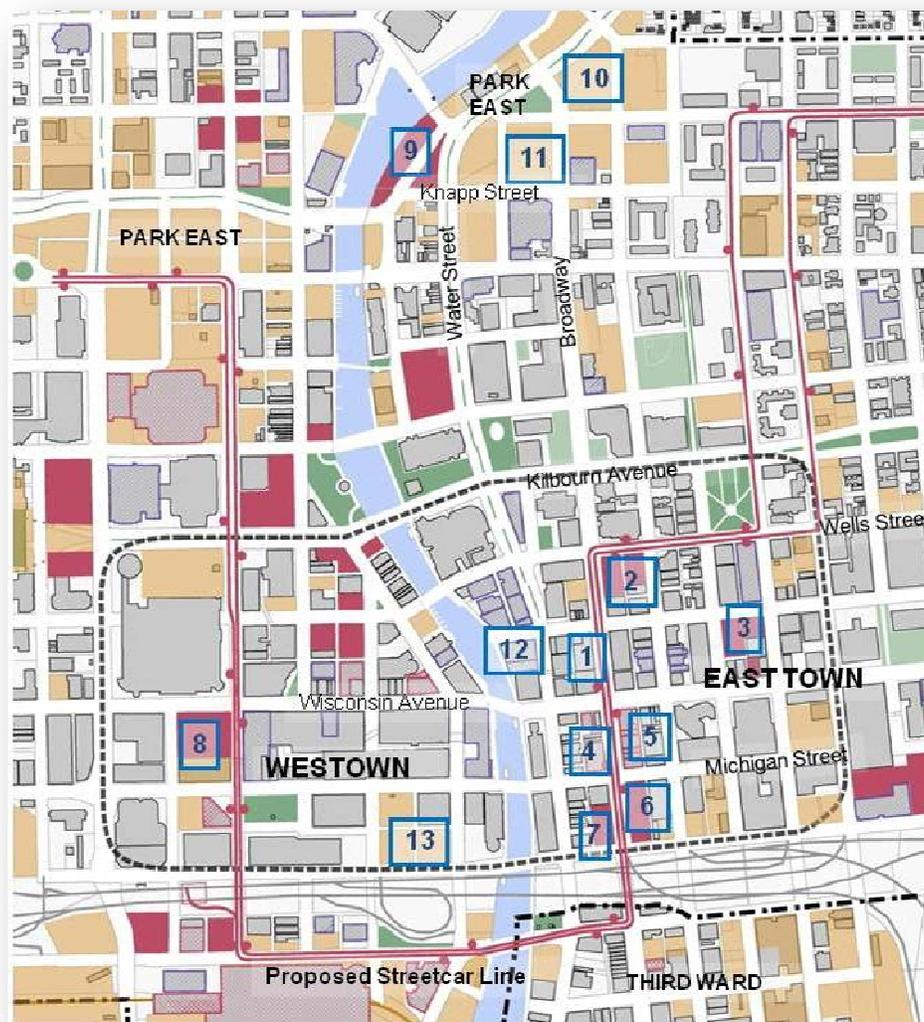


Table 8 – Potential Development Parking Generation^{vii} (taken from the Future Conditions report) provides a listing of “best guess” land use development configurations worked through jointly with DCD for the potential development sites shown in the adjacent figure and an estimate of the associated parking generation.^{viii}

Table 10^{ix} (taken from the Future Conditions report) provides a roll-up of existing office occupancy and parking demand, the potential growth in office occupancy and parking demand plus the parking demand associated with potential development projects in the downtown for off-street, on-street and total parking demand. This table also integrates the loss or addition of parking due to potential development in the public and private parking system and finally, rolls-up the parking to illustrate the total parking supply, total parking demand, occupancy rate and any shortfall or surplus of parking by subarea. As shown in Table 10, potential land use development was also categorized by anticipated year of development, such as 2011, between 2011 and 2013 and 2014 or later.

Table 8 – Part II Future Parking Conditions - Potential Development Parking Generation

No.	Project	Sub Area	Office	Retail	Resid.	Theater	Hotel	Total	Proj. Pk Hr Demand ¹		
									Total	Off-Street	On-Street
1	The BID Retail Plan - Phase 1	C16/C17	0	45,000	0	0	0	45,000	135	49	86
4	Mackie/Mitchell/Loyalty Buildings	B2/B7	168,184	0	0	0	0	168,184	471	447	24
7	503-525 Broadway Site	B7	129,600	25,920	0	0	0	155,520	441	354	87
10	735 N Water Street Site	A13	96,000	0	0	0	0	96,000	269	255	13
Year 2011			393,784	70,920	0	0	0	464,704	1,315	1,105	210
1	The BID Retail Plan - Phase 2	C16/C17	0	45,000	0	0	0	45,000	135	49	86
2	MAC/Fire Station Site	A10	250,000	21,857	0	0	0	271,857	766	673	93
6	Broadway/Michigan Site	B8	0	4,000	0	600	0	4,600	216	205	11
8	Edison and Water Street Site	E3	300,000	25,000	0	0	0	325,000	915	807	108
9	Park East - Block 22 - Alt 9A	E6	0	0	384	0	0	384	499	489	10
	Park East - Block 22 - Alt 9B	E6	0	151,650	0	0	0	151,650	455	164	291
	Park East - Block 22 - Alt 9C	E6	250,000	75,825	0	0	0	325,825	927	692	235
Year 2013	Scenario 1 - Projects 1, 2, 6, 8, 9A		550,000	95,857	384	600	0	646,840	2,530	2,223	307
	Scenario 1 - Projects 1, 2, 6, 8, 9A, 9B		550,000	247,507	0	600	0	798,106	2,486	1,898	589
	Scenario 1 - Projects 1, 2, 6, 8, 9A, 9C		800,000	171,682	0	600	0	972,281	2,959	2,426	533
1	The BID Retail Plan - Phase 3	C16/C17	0	34,485	0	0	0	34,485	103	37	66
3	Mason/Jefferson - Joel Lee Site	A17	250,000	30,480	0	0	0	280,480	791	676	115
5	The Broadway Historic Buildings - Alt 5A	B3	65,496	0	0	0	0	65,496	183	174	9
	The Broadway Historic Buildings - Alt 5B	B3	0	0	71	0	0	65,496	92	90	2
	The Broadway Historic Buildings-Alt 5C	B3	32,748	10,515	27	0	0	65,496	159	126	33
11	Clark Street Development Parcels - Alt 11A	C21	0	100,000	0	0	120	148,000	432	276	156
	Clark Street Development Parcels - Alt 11B	C21	0	100,000	40	0	0	148,000	352	178	174
> Year 2014	Scenario 1 - Projects 1, 3, 5A, 11A		315,496	164,965	0	0	120	480,581	1,510	1,163	347
	Scenario 2 - Projects 1, 3, 5A, 11A, 11B		315,496	164,965	40	0	0	480,501	1,430	1,065	365
	Scenario 3 - Projects 1, 3, 5B, 11A		250,000	164,965	71	0	120	415,156	1,419	1,079	340
	Scenario 4 - Projects 1, 3, 5B, 11B		250,000	164,965	111	0	0	415,076	1,339	981	358
	Scenario 5 - Projects 1, 3, 5C, 11A		282,748	175,480	27	0	120	458,375	1,486	1,114	371
	Scenario 6 - Projects 1, 3, 5C, 11B		282,748	175,480	67	0	0	458,295	1,406	1,017	389
Total > 2014			1,226,532	342,257	493,147	56,000	48,000	2,165,935	5,331	4,646	1,114

¹ Parking Generation Table

Land Use	/ size	Parking Generation Table		
		Total	Off-St	On-St
Office	1kgsf	2.80	2.660	0.140
Retail	1kgsf	3.00	0.360	2.640
Hotel	room	1.10	1.000	0.100
Residential	unit	1.30	1.275	0.025
Cinema	seat	0.34	0.340	0.000

² Off-street parking demand increased by 5% and on-street parking demand increased by 10% to reflect the associated parking supply required to meet demand.

As shown in Tables 8 and 10, there are significant shortages anticipated in the parking supply beginning in year 2011. The areas expected to experience shortages in parking supply are discussed in more detail in the following section.

Table 10 – Future Parking Conditions

District	Project No. and Name	Increase in Parking Demand			Spaces Lost/Gained			Off-Street Parking Adjusted for Potential Projects (90% target vacancy rate)				On-Street Parking Adjusted for Potential Projects (90% target vacancy rate)				Total Adjusted Parking System (90% target vacancy rate)			
		Off-St	On-St	Total	Off-St	On-St	Total	Spaces	Demand	% Occup	Surplus/ (Shortfall)	Spaces	Demand	% Occup	Surplus/ (Shortfall)	Spaces	Demand	% Occup	Surplus/ (Shortfall)
A	2 MAC/Fire Station Site	673	93	766	(181)	0	(181)												
	3 Mason/Jefferson - Joel Lee Site	676	115	791	(183)	(10)	(193)												
	12 735 N Water Street Site	255	13	269	0	0	0												
	subtotal	1604	222	1826	(364)	(10)	(374)	6,410	7,727	121	(2,175)	442	781	177	(426)	6,852	8,508	124	(2,601)
B	4 Mackie/Mitchell/Loyalty Buildings	447	24	471	0	0	0												
	7 503-525 Broadway Site	354	87	441	(115)	(5)	(120)												
	6 Broadway/Michigan Site	205	11	216	(217)	(4)	(221)												
	5 The Broadway Historic Buildings - Alt 5C	126	33	159	0	0	0												
	subtotal	1,132	154	1,286	(332)	(9)	(341)	2,808	4,074	145	(1,718)	222	318	143	(132)	3,030	4,392	145	(1,850)
C	1 Retail BID District	134	239	373	0	0	0												
	13 Clark Street Development Parcels - Alt 11A	276	156	432	(738)	(20)	(758)												
	subtotal	410	395	805	(738)	(20)	(758)	8,278	7,435	0.90	16	526	1,059	2.01	(651)	8,804	8,495	0.96	(635)
D	No Projects																		
subtotal	0	0	0	0	0	0	6,568	4,429	0.67	1,647	343	252	0.74	63	6,911	4,682	0.68	1,709	
E	9 Edison and Water Street Site	807	108	915	(238)	0	(238)												
	10 Park East - Block 22 - Alt 9C	692	235	927	0	0	0												
	subtotal	1,499	343	1,842	(238)	0	(238)	471	1,798	3.82	(1,527)	285	360	126	(114)	756	2,158	2.85	(1,641)
Totals		4,646	1,114	5,760	(1,672)	(39)	(1,711)	24,535	25,463	1.04	(3,758)	1,818	2,771	1.52	(1,261)	26,353	28,234	1.07	(5,018)

2.6.1. PRIORITY SUBAREAS

The downtown area with the most immediate need for additional parking to support both existing and new development is located in City blocks E43, E44, E60 and E61 at the Broadway and Michigan intersection. This area includes:

- a City owned garage in the southwest corner of block E43 that is leased to a private company which is reserved 24 hours per day, seven days per week;
- historic and iconic buildings with little to no parking in their immediate adjacency on block E61 including Loyalty office buildings, a row of vacant four story buildings on block E60, and the Mitchell and Mackie buildings on block E43; and
- new development sites including the surface parking lot at 503-19 N. Broadway surface lot on block E 43 adjacent to the Mackie Building and the surface parking lot at 500 N. Broadway between Michigan and Clybourn, that could be developed as highly desirable mixed-use development, including a parking component.

There have been several concepts for development and sharing of the City garage that would encourage some additional entertainment type uses, such as:

- allowing evening and weekend use of the garage when the employee demand decreases to almost zero; and
- developing mixed-use parking garage on block E44 to serve the mix of users in the area (primarily the Mitchell and Mackie buildings) and new development that could occur on block E43 surface lot.

Perhaps a new mixed-use development with a significant garage component could provide the opportunity to “swap” through TOD the use of the City garage to the new site, allowing the City garage to support parking demand that could be generated by the Mitchell and Mackie buildings. An approach like this would likely require the City to finance, construct and own the new garage piece as an economic incentive to supporting the other pieces of the puzzle.

Although the City does not have control over how most of the sites are developed, they do have control of incentives and “funding the gap” to assist in creating economically viable development. This is the role the City has played historically and could play in this area of the downtown.

2.7. TAX INCREMENT AND/OR SPECIAL ASSESSMENT (IMPROVEMENT) DISTRICTS POLICY

Special assessment districts may form the basis for selling bonds to develop a new parking garage, a parking lot or an entire parking system. Although the method of spreading assessments may range from simple to complex, the basic methods of structuring the bonds are the following:

The first category represents bonds payable from special assessment taxes levied on all property deemed to benefit from the project within the specifically designated special assessment district. The bonds may or may not include the pledge of net revenues of one or more parking facilities. With the tax base from the special assessment district, such bonds would normally be marketable at a reasonable interest rate, provided that the special assessment district contained a:

- 1) sufficient tax base;
- 2) physical area; and

- 3) a state law that establishes the special assessment levies that will be collected on par with the general property taxes; and therefore constitute a lien on assessed property.

Typically, an additional covenant may be included that requires the special assessment to generate sufficient funds to pay the debt service on the bonds to be issued. Under these circumstances, the bonds would be ratable. An example would be a community redevelopment agency (CRA) or downtown development agency (DDA).

If bonds represent the full faith and the credit of the district, they would be marketable at a reasonable rate, providing that the special taxing district has taxing powers for the special assessment that are on parity with the municipal tax levies and are unlimited as to rate or amount for debt service. Such bonds probably would be ratable.

Tax increment bonds which are also a form of special assessment bonds would be payable from a regular tax millage levied upon the anticipated increase in assessed evaluation. The differential, or increase in assessed evaluation, from a predetermined base year is deemed attributable to the construction of taxable developments.

An example might be new office buildings or a new retail center that would generate the need for the parking structure that was to be financed in this manner. Such bonds may be marketable at reasonably high rates of interest, providing that the taxable redevelopment project is large enough to project adequate tax revenue and further if the project is well under construction and fully financed to the anticipated completion date prior to an attempt to sell the parking assessment bonds. *This is a critical element in the feasibility of this financing scheme.*

Unless a tax increment generation project is under commitment (financing committed or under construction), there is little assurance that it will ever be constructed, and therefore, the tax increment bonds might never have a basis for repayment.

2.7.1. PARKING OVERLAY DISTRICTS

Overlay zoning is a regulatory tool that creates a special zoning district, placed over an existing base zone(s), which identifies special provisions in addition to those in the underlying base zone. The overlay district can share common boundaries with the base zone or cut across base zone boundaries. Regulations or incentives are typically included within the overlay district ordinance to protect a specific resource or guide development within a special area.

2.7.2. COMMON USES/DEVELOPMENT GUIDANCE

Define the purpose of the district. The district should have a clearly defined purpose, that is, to provide parking for uses such as general public and/or private use supporting economic development.

Overlay zones may also be applied to protect historical areas or encourage or discourage specific types of development. Land within the historic overlay district may be subject to requirements that protect the historical nature of the area (such as location, design,

materials, façade or color). A community might use parking overlay district incentives along a transit corridor to encourage higher development densities, target uses or control appearance.

2.7.3. IMPLEMENTATION AND CREATION

Any governmental unit with the power to create zoning districts can create an overlay district. There are three basic steps to creating an overlay district:

1. Define the Purpose of the Parking Overlay District. The district should have a clearly defined purpose based on the need to support economic (re)development.
2. Identify the Areas that Make Up the District. Mapping district boundaries will depend on the natural or cultural resources and the geographic areas that relate to achieving the purpose of the district. For example, if the purpose of the zone is to provide parking to support economic development, the area should be mapped.
3. Develop Specific Rules that Apply to the Identified Parking Overlay District. In a parking overlay district for example, provisions may restrict development or require development guidelines that contribute towards parking either financially or physically.

It is critical that the zoning provisions offer clear guidance to both property owners and the governing body charged with approving proposals. Zoning requirements must be applied equally over all properties within the district. The ordinance not only must comply with any state and federal regulations, but must also be consistent with the goals, objectives and policies of the municipality's comprehensive plan. It is important that the local governing body involve the public to clarify issues and explain the reasons behind mapping district boundaries. An educational program targeting developers and affected property owners will help increase awareness and compliance with the new requirements.

The procedures for adopting an overlay district are the same as for adopting a zoning or rezoning provision. The local governing body for adoption must approve the overlay provisions as well as changes to the zoning map.

2.7.4. ADMINISTRATION

Consideration of the parking overlay district standards should be integrated into the existing site plan review process for larger-scale residential developments and most commercial development. In some cases where projects are of smaller-scale, the development may only require a building permit, but it may be necessary to include provisions for a streamlined form of site plan review for these projects. A municipal board, commission, zoning administrator, or building inspector, usually administers this review. Long-term compliance can be addressed in the existing procedures for current zoning compliance.

Please refer to the section of this report that provides a discussion of a newly proposed and streamlined process to accelerate the development of projects and generation of tax increments (see the section on “Development Ombudsman”).

“When reviewing a project of any size in the overlay zone, it is important that the development be consistent not only with the goals and objectives of the overlay but with the long-term goals and strategies of the overall municipal comprehensive plan.”

2.7.5. REPORT CARD: OVERLAY ZONING

Cost	Cost money or staff resources required to implement tool.
A	Assuming a zoning ordinance currently exists, the cost to create the district should be similar to the potential cost to modify the existing ordinances. Little, if any additional staff would be required to administer the new zoning provisions.
Public Acceptance	The public’s positive or negative perception of the tool.
B	Zoning provisions for the overlay zone in addition to base zoning rules may be confusing to the public without some education.
Political Acceptance	Political willingness to implement this tool.
B	Political willingness will depend upon the provisions within the ordinance.
Equity	Acceptance of an equitable assignment of costs and consequences to Stakeholders.
B	The tool may be perceived as fair if all properties within the zone are treated equally and the criteria for delineating the zone are straightforward and justified.
Administration	Define the level of complexity to manage, maintain, enforce and monitor the tool with existing or new resources.
B	An overlay district can be integrated into the administration of the existing zoning ordinance. An additional process may need to be established for small projects needing only a building permit. Reviewer training may be necessary and/or required. A well-written ordinance and clear boundaries will simplify compliance.
Scale	The geographic scale at which tool is best implemented.
Municipal to Regional	The tool is most often implemented at a municipal or county scale.

Grading Explanation

- A – Excellent C – Average F - Failing
- B - Above Average D - Below Average

2.7.6. EXAMPLES - GREEN BAY, MANITOWOC, SHEBOYGAN & MADISON, WI

These cities only comprise a few of the cities in Wisconsin that incorporate an Urban Parking Overlay District as part of its downtown redevelopment effort to encourage building reuse and infill. The parking overlay district allows new or redeveloped properties (projects) to share parking facilities and receive parking-based credit

towards specific zoning requirements for provision of on-site parking or to satisfy actual parking demand characteristics by identifying available public or private parking supply within a pre-specified distance from the projects. Numerous states have adopted enabling legislation and cities ordinances to adopt and implement parking overlay districts.

2.8. LONG-TERM MASTER PLANNING POLICY

It is critical for the City to continue to monitor and improve the parking and development trends over time. A Master Plan update should be prepared every five to six years so that dynamics in the marketplace can be reacted to in an efficient manner before opportunities are lost.

3. DIMENSIONS OF PARKING – TRADITIONAL FINANCING

Many factors affect the choice of financing used for a new parking project. However, the most significant of these factors is the estimated financial feasibility of the proposed garage as determined by qualified parking financial specialists. The projected ability of the proposed facility to earn net parking revenues for the payment of the debt service from the bonds remains the key factor in deciding how the project should be financed. The most common method of financing parking facilities is with one of the following types of bonds discussed below.

3.1. GENERAL OBLIGATION BOND (GO BOND) FINANCING

These represent bonds issued as a general obligation of the governmental entity and represent the full faith and credit and unlimited taxing powers of the issuer. Such bonds are marketable at reasonable rates, depending upon the financial standing of the governmental agency and such bonds would normally be rated. In some instances, depending upon local constraints, the bonds would be payable from a statutory limited rate property tax. In this case, the bonds would also be marketable at a reasonable rate of interest, depending upon the maximum available taxes that could be collected annually relative to the annual debt service on the proposed bonds.

3.2. REVENUE BOND FINANCING

There are several sets of conditions that might control the issuance of revenue bonds in a given circumstance:

- Bonds that are only payable from the net revenues generated by a single new garage that is constructed from the revenue bond proceeds are atypical. Bonds of this type would be almost unmarketable at reasonable rates of interest unless the economic feasibility study showed an estimated coverage ratio of 2.0 or more and/or unless the potential patrons of the garage would have no reasonable option to use competitive facilities. Revenue bonds under the above circumstance would probably not be ratable.
- Revenue bonds payable solely from the net revenues of a single facility to be constructed from the proposed bond proceeds plus the pledge of on-street meter revenues and/or other off-street revenues within the city. Under this circumstance, the bonds would likely, be marketable at a lower rate of interest than the situation noted above. However, two important factors would control the marketability of the bonds:
 1. The economic feasibility would need to show a coverage ratio of at least 1.25 and commonly as much as 1.50 or 1.75; and
 2. The recent historical record of on-street meter revenues and/or other off-street revenues would need to show at least an additional 25 percent coverage up to 1.75 of the annual debt service. Such bonds would likely be rated.

Obtaining a bond rating historically has been critical to selling the bonds. However, recent passage of the Dodd-Frank financial reform bill has the potential to cause a substantial shift in how the market views ratings and prices risk. After passage of the bill in July 2010, the ratings agencies immediately issued statements refusing to allow their opinions to be used in offerings until the impacts of the bill could be assessed. The SEC immediately responded by allowing current offerings to proceed without any ratings, marking the first time that pension funds and other regulated investors could place funds in issues without any regard to their risk ratings. As of this writing, the future of issuer paid credit ratings is unclear and may have profound effects on public finance. This matter must be monitored and may have material effects on the conclusions and recommendations made in this Study.

Revenue bonds typically require financial feasibility studies or historical pro formas that indicate the likelihood that the bonds could be paid solely from the net revenues of a city-wide parking system, most times including all or a portion of existing on-street and off-street facilities, as well as the proposed garage or garages to be constructed from the bond proceeds.

Revenue bonds under this condition would be marketable at a reasonable rate if the economic feasibility for the entire system showed a minimum coverage ratio of 1.25 and the historical record of net earnings for the balance of the system showed at least a one times coverage of the annual debt service. These bonds probably would be ratable.

Typically, these bonds would be payable solely from:

- the net revenues of one garage (stand alone and uncommon); or
- several existing garages which is more common;
- plus revenues produced by the new facility;
- may or may not include the pledge of on-street revenues; and
- occasionally would include the pledge of parking related fines revenue depending on the state enabling legislation in-place and local ordinances;

This type of financing generally still requires the commitment of the full faith and credit guarantee of the municipality or other governing body as additional security to meet any potential or real deficits identified in the financial feasibility studies.

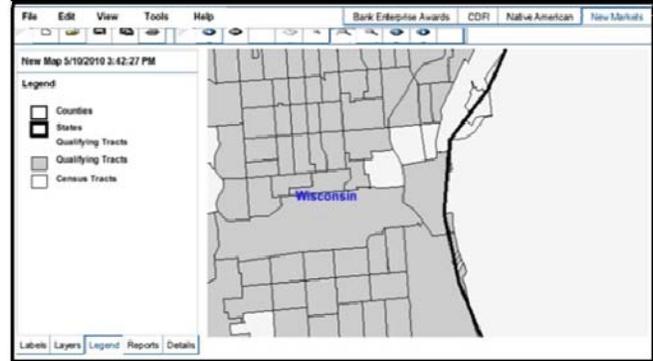
These bonds would probably be marketable at reasonable rates of interest, depending upon the financial status and credit worthiness of the city, and if the credit rating is sufficient (AB or higher), the bonds could probably be rated and marketable.

3.3. NEW MARKET TAX CREDITS

The United States Treasury Department (Treasury) has developed a program designed to assist redevelopment projects in low income or targeted census tracts by providing tax credits to equity investors. Parking is an allowed investment under this program, which has been in place since 2000.

As described by the Treasury, the New Markets Tax Credit (NMTC) program permits taxpayers to receive a credit against federal income taxes for making qualified equity investments in designated Community Development Entities

(CDEs). Substantially all of the qualified equity investment must in turn be used by the CDE to provide investments in low-income communities. The credit provided to the investor totals 39 percent of the cost of the investment and is claimed over a seven-year credit allowance period. In each of the first three years, the investor receives a credit equal to five percent of the total amount paid for the stock or capital interest at the time of purchase. For the final four years, the value of the credit is six percent annually. Investors may not redeem their investments in CDEs prior to the conclusion of the seven-year period.

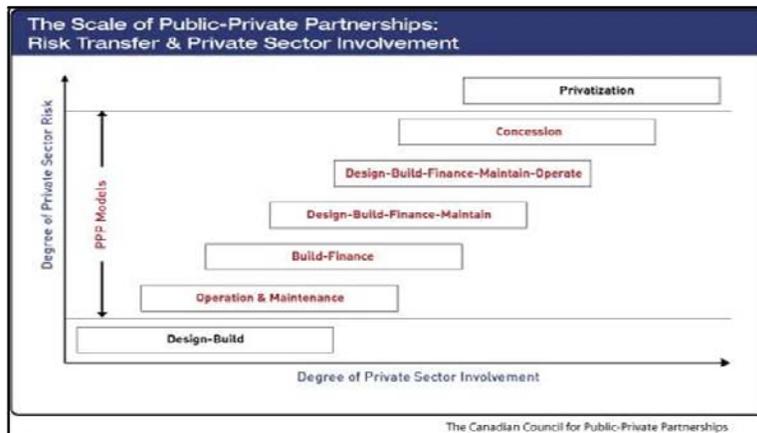


Throughout the life of the NMTC program, the fund is authorized to allocate to CDEs the authority to issue to their investors up to the aggregate amount of \$26 billion in equity as to which NMTCs can be claimed, including \$3 billion in Recovery Act Awards and \$1 billion of special allocation authority to be used for the recovery and redevelopment of the Gulf Opportunity Zone.

3.3.1. ELIGIBILITY

An organization wishing to receive awards under the NMTC Program must be certified as a CDE by the Fund. To qualify as a CDE, an organization must:

- be a domestic corporation or partnership at the time of the certification application;
- demonstrate a primary a mission of serving, or providing investment capital for, low-income communities or low-income persons; and
- maintain accountability to residents of low-income communities through representation on a governing board of or advisory board to the entity.



Review of the Treasury mapping software indicates that many areas of downtown Milwaukee are eligible for NMTC investment by CDEs. The City

should reach out to CDE's that have been awarded NMTC allocations and encourage their investment in parking within these areas to bolster the viability of redevelopment.

3.4. PUBLIC PRIVATE PARTNERSHIP APPROACH (3PA)

The National Association for Public Private Partnerships mission is to educate the infrastructure community about concepts and best practices and promoting the use of public-private partnerships in the U.S.^x The definition embraced by The Canadian Council for Public-Private Partnerships is as follows:

A cooperative venture between the public and private sectors, built on the expertise of each partner that best meets clearly defined public needs through the appropriate allocation of resources, risks and rewards.

Public-private partnerships span a spectrum of models that progressively engage the expertise or capital of the private sector. At one end, there is straight contracting out as an alternative to traditionally delivered public services. At the other end, there are arrangements that are publicly administered but within a framework that allows for private finance, design, building, operation and possibly temporary ownership of an asset.

There are numerous publications and examples of how this approach can be successful in the City of Milwaukee so it is not addressed specifically herein except for the following example.

3.4.1. EXAMPLE - CITY OF MIAMI BEACH

Because of the competitive nature of the private sector, often the solicitation of these partnerships can be problematic. Typically, the proposers will want their proposals to remain opaque to their competitors. The City of Miami Beach has found great success in creating private investment on its public parking lots by soliciting proposals offering the use of air rights above existing parking lots in very general terms and then providing specific evaluation criteria instead of development specifics. These criteria typically involve a minimum requirement for public parking within any proposed development and the definition of any proposed revenue sharing or lease payments by the proposer.

3.5. SALE/LEASEBACK TO INVESTMENT GROUP

Typically, sale/leaseback transactions require the highest level of due diligence in defining debt service coverage. In addition, there is typically a requirement for the public entity to back the projections with the full faith and credit of the city (using a city as an example). In this case, a stand-alone garage or group of garages, or “the entire public parking system” is expected to generate sufficient revenues to be self-sustaining and generate a rate of return that would interest investors familiar with this type of building development. The investment group would negotiate a lump sum payment based on monetizing projected net operating income (NOI) to the present year at a negotiate discount rate. If agreed, the investment group would then be awarded (usually) a concession to operate the garage(s) for a certain fixed term.

In this case, a private investment entity pays a negotiated amount to the owner for the right to operate the garage(s) for a certain term, usually 50 to 99 years. The City is paid a guarantee solely from the rental payments and/or fees received from leasing and/or hourly/daily revenue plus other on-site revenue such as advertising or the leasing or sale of air-rights above the garage. The bonds would probably be marketable at reasonable rates of interest, if the leasee represented a political subdivision with an adequate security to guarantee continued payment of the lease.

If the leasee is a private, for-profit company, the insurer's bonds would be considered industrial or taxable revenue bonds and therefore, the maximum size of tax exempt financing for any such project would be \$5 million under the present IRS regulations. Such bonds would probably be ratable depending upon the security provided by the leasee.^{xi}

4. FUNDING THE GAP^{xii}

In most mixed-use project pursuits, there tends to be a funding gap, usually related to equity. Parking can play a role in filling that funding gap in a number of ways, some of which are discussed below. Any of the approaches discussed below may apply to an existing or a new building/development project.

4.1. DEVELOPMENT OMBUDSMAN

As clearly indicated in this report and appreciated by anyone who has attempted to negotiate the path to successful development at the City, there are many hurdles and to the land owners, business owners or entrepreneurs. There may be fewer hurdles to experienced developers who have learned the system and streamlined the process.

So how does an existing business owner with creative ideas for expansion negotiate the process? In many cases they sell the business, decide not to expand, hire developers who may or may not serve the client well and commonly their best, grass roots ideas are not implemented.



The Charter Township of Lansing released a request for qualifications (RFQ) for qualified firms to provide Development Ombudsman Services in connection with the promotion of additional tax generating development within the Eastwood Tax Increment Finance (TIF) District (Eastwood). The Township was looking at retaining a firm with experience assisting their clients in delivering development projects to create new economic benefits including new jobs, increased property values, new tax revenues, public infrastructure/parking and development momentum. The Township had initiated efforts to expand Eastwood east of Preyde Boulevard as a catalyst project and consequently, stimulating the interest of surrounding property owners to consider

significant investment in their own properties. This private reaction to the DDA's initiative will thereby increasing the DDA's TIF funds for reinvestment and potentially creating significant development momentum for continued secondary development by the private sector.

The Township was interested in retaining a firm in a position to offer those owners who have a genuine interest in investing in their property local experience and knowledge which will correlate in accelerating the feasibility and planning stages and lead to a much sooner and more profitable construction phase. The selected firm should have the collective knowledge, experience and creativity to translate their investment concepts into buildable projects in a manner that expedites the process from planning thru certificate of occupancy. The Township believes that there was no better opportunity to leverage the current momentum and energy created with the catalyst expansion at Eastwood in generating new employment,

more customers, excitement, activity and a sense of place for Eastwood, and ultimately providing long term tax revenues to the DDA.

The selected consultant would be paid from new tax revenues that are generated from successful project development. Other than a small retainer, the incentive to the selected firm was to generate successful developments.

4.2. PAYMENT-IN-LIEU

Many cities offer developers the option of paying a fee-in-lieu of providing their required parking on-site or as part of the development proposal. For example, Palo Alto, California, allows developers to pay the city a fee of \$17,848 for each required parking space that is not provided as part of the parking supply necessary to support the development or through zoning requirements. The city collects the payments and uses the revenue to size and fund a bond issue (usually) to build parking for public use that meets the needs of multiple developments that paid the city to provide the necessary public and private parking.

There are advantages and disadvantages to fee-in-lieu of parking. Payment or fee-in-lieu of parking tends to be a viable option when:

1. Multiple developments are proposed, planned, financed and financially feasible and there is reasonable certainty that the payment-in-lieu will be paid to the city;
2. The city has sufficient property set aside or co-planned with the private sector and the necessary financial independence to fund a garage through G.O. or revenue bonds prior to receipt of payment from the developers; and
3. The payment-in-lieu is adjusted to reflect the actual cost of constructing parking. The advantage to the developer (and city) is that higher densities can be developed and the cost of land for a garage may be the requirement of the city rather than the developer.

This is necessary so that: 1) the developers are assured the parking will be available when their project is complete; and 2) the city can financially support building garage(s) as an economic development tool and betting there will be sufficient funds generated through payment-in-lieu and day-to-day use of the garage to support the bond financing. This type of financing may or may not require taxable versus tax-exempt financing. Depending on the commitment between the developer and the city, if any, to provide the developer with a set number of spaces, the financing may need to be taxable rather than tax-exempt. The City of San Antonio issues taxable revenue bonds so that compliance with the IRS is never an issue and the spaces can be reserved, assigned, set-aside in any manner desired. Recently, many more cities are issuing taxable financing for parking because the interest rates have been at historical lows and the difference between tax-exempt and taxable interest rates has had little impact on the financial feasibility of the garage. Whatever impact the interest rate does have can many times be offset by the flexibility in negotiating the developer deal.

Payment or fee-in-lieu of parking tends to be infeasible when:

1. Development is less dense, land value are low (relative to construction) and the development and/or financial community is under pressure (present equity positions in 2010) so that the certainty that the payment-in-lieu is questionable;
2. The city has insufficient property set aside or co-planned with the private sector and may not have the necessary financial strength to fund a garage through G.O. or revenue bonds prior to receipt of payment from the developers and/or new TIF; and
3. The payment-in-lieu is not realistic or it reflects the cost of surface parking. This is an extremely common situation across the US. The city never collects sufficient payments to build much of anything. (see a work-around in a similar situation in the chapter on Case Studies for Lofts at Waverly, Melbourne, FL.



The goal of a payment-in-lieu is to generate sufficient funds to invest in parking improvements that have a nexus with the payer or targeted area of the payment. However, there is great flexibility in how this can be accomplished. Parking capacity expansions that serve other areas away from the targeted area may have a benefit by shifting parking demand throughout the area and creating availability in the targeted area. Understanding if the expansion

results in creating more available parking in the target area is important in justifying (the nexus) the use of the funding.

The downside of payment-in-lieu tends to be more problematic with municipalities that do not have the resources to initially construct a garage or other improvements without first generating the necessary capital through the payments. In other words, collecting \$150,000 in payments may not allow a municipality to construct any meaningful improvements. This approach is much better utilized when there are other resources available for financing and the payment-in-lieu tends to be secondary or tertiary funding for the improvement.

4.2.1. EXAMPLE - CITY OF MELBOURNE, FLORIDA

The City of Melbourne, Florida has had a fee in lieu program for years, but had never seen any meaningful use of it because no assurance could be given that payment into the program would guarantee an available supply of parking. Developers found it difficult to finance or lease space when no parking could be identified at the time of payment. City Council, on the other hand, was reluctant to seed the program with a parking garage full of empty spaces because no developer had ever participated in the program. A future filled with typical downtown towers on top of podiums filled with parking seemed assured.

The Lofts at Waverly was proposed at a time when values were high and was a public private joint venture, developed on both private land and a city parking lot. In order to induce the City to enter into the venture, the developer proposed replacing the City's parking lot with grade level parking in the project after completion and paying the value of the land. The City was able to maintain its existing limited supply of parking and generate significant cash for its Parking Fund. In exchange, the City agreed to be paid as units in the project were sold, providing a below market mezzanine financing instrument to the project and funding the in lieu program directly as new users moved into downtown. The funding from the land sale was equivalent to the value of 100 new spaces under the in lieu program.



4.3. TRANSFER OF DEVELOPMENT RIGHTS (TDR)

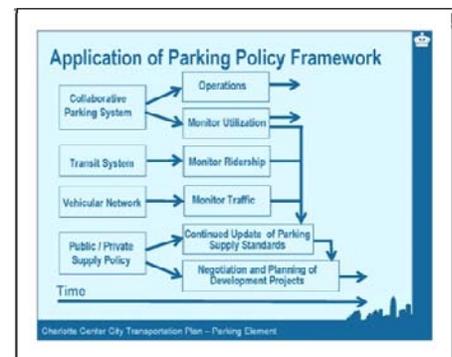
A transfer of development rights (TDR) allows for the transfer of unused development rights from one zoning lot or parcel to another in special circumstances, usually to promote the preservation of historic buildings, open space or unique cultural resources. For such purposes, a TDR is permitted where the transfer could not be accomplished through a zoning lot merger because certain conditions, such as intervening streets, separate the zoning lots. In its simplest terms, if two landowners (A and B) own adjacent property and each are permitted to build a five story building on their lot, landowner A may sell their development rights to landowner B. In which landowner B may now build a 10-story building providing that landowner A leaves their land undeveloped. This is a viable approach and has likely been used by the City of Milwaukee numerous times over the years. As it relates to parking, it should allow changes in density that create opportunities to provide parking in a more beneficial and feasible manner.

4.4. DEVELOPMENT INCENTIVES

Development incentives involve using a carrot rather than a stick with the development community when zoning or other ordinances do not result in development that follows specific objectives of the larger community. Development incentives can include a myriad of methods, but the following describes three examples of how development incentives involving parking were used to create a successful outcome.

4.4.1. EXAMPLE - CITY OF CHARLOTTE, NC – CENTER CITY

The City of Charlotte, NC owns no significant public parking in the downtown of the Center City. There is over 9,000 off-street parking spaces in the downtown with less than 1,000 spaces owned by the City and serve the government center. In



addition, there are no requirements to provide parking for new development so a rather disorganized parking system has evolved over the years.

The City had a desire to guide parking development so that it was aligned with their goals of their new multi-billion dollar light rail system. The goal was to maintain sufficient ridership to maintain a feasible light rail system, but in a way that does not inhibit quality development of the Center City. Without the ability to control parking development the City was not in a position to guide parking in any meaningful manner and nearly every project, in order to obtain financing, would include an underground garage or large above ground parking garage or surface lot. This was leading to a downtown that had scattered and private use parking throughout which was contradictory to reducing traffic congestion and increasing transit ridership.

One of several solutions that was implemented was to create development incentives, either through density, height or other bonuses that would serve the development community as an incentive to work with the City to “buy into” centrally or remote parking that would serve many users rather than a specific user.



Another concurrent effort was made by the City to create a coalition of parking operators and owners to support the incentive plan through an investment by the City in a dynamic way finding system on the interstate ring road that surrounds the Center City. Studies indicated that there was a vacancy rate of about 15 to 20 percent of the existing spaces, or approximately 1,500 to 1,800 spaces. The problem was that the available parking was nearly impossible for drivers to locate. The

sign system would direct arriving parkers unfamiliar with the downtown directions to where parking was available resulting in higher efficiencies and increased revenue for the operators and owners.

This combined multi-level approach took several years to implement but appears to be very successful at this stage. One of the ways the City controls their level of involvement with incentives is by tracking metrics including transit ridership, number of employees and number of parking spaces in the Center City. They can adjust their development program according to meeting the objectives of each. As an example, if transit ridership is trending towards exceeding projected levels or employee levels were dropping, then the City may more aggressively incent parking expansion. On the other hand, if ridership was falling short of projections, then the City would work to disincentivize parking expansion and incentivize transit ridership.

4.4.2. EXAMPLE - CITY OF WEST PALM BEACH, FL

In early 2009, the City of West Palm Beach relocated its administrative offices from a waterfront site to a new facility in the core of the downtown. The move



resulted in a redevelopment initiative for an entire square block (the former City Hall site) along with an adjacent block that the CRA had acquired to preserve waterfront view corridors. In addition, the City had recently adopted form based zoning in an effort to eliminate “podium” development, where developers were building parking to the property lines and placing towers atop them.

One of the key assets of the site, beside the sheer uniqueness of finding an entire assembled block in a mature downtown, is the adjacent parking garage. Owned by the City, and once populated by City Hall employees and visitors, it was now minimally used during the day. Studies showed that it was quite busy late at night on the weekends due to its proximity to the entertainment core of the downtown, but there was substantial capacity during the daytime hours. Structural studies showed that it could also be expanded quite economically.



The parking became key to the attractiveness of the site. With no expense to the City, the development community saw the garage as an \$8 to \$10 million equity contribution to the project. Along with the value of the land, it gave the City substantial

leverage to control the ultimate development of the land. As of April 2010, the City is finalizing zoning on the site to conform to its desired uses and will be releasing an RFQ for developers in the fourth quarter of 2010.



4.4.3. EXAMPLE - CITY OF POMPAÑO BEACH, FL

The City of Pompano Beach, through its East CRA, undertook a redevelopment planning effort after Hurricane Wilma severely damaged the buildings surrounding the Pompano Fishing pier. The two square blocks of existing surface parking were key to supporting the public use of the beach and pier, but were also the only land available for development of support facilities in this highly urbanized area.



Because of an extensive, two-year stakeholder input process; the CRA created a TIF and issued \$16 million in bonds to support public improvements to attract private development to the Pier site. Along with the expected streetscape and beach access

improvements, the TIF budget focused its largest single investment in a 500 car-

parking garage. Construction of a garage, in the northwest corner of the project, created 4 acres of open space and 34,000 square feet of development area while adding parking supply for the public to use the beach and pier.

The CRA issued its developer RFP in summer 2010 and has begun construction drawings on the first phase of the public improvements. Proposals are expected in August 2010 and selection by September.

4.5. PARKING TAX

Parking tax reform includes various tax policies that support parking management, including commercial parking taxes (a special tax on parking rental transactions) and per-space parking levies (a special property tax applied to parking facilities). These can help reduce parking supply and increase parking prices, as well as providing revenues for public programs.^{vi}

4.5.1. EXAMPLE - CITY OF PITTSBURGH, PA

Several years ago, the City of Pittsburgh increased the parking tax from low teens to 50 percent of gross receipts. This approach was taken to increase city revenues to stopgap shortfalls in the general fund. The tax was highly controversial and was due to sunset in 2009. Going back to 2002 when we studied the market for parking in Downtown Pittsburgh there has been a mismatch between the supply and demand for parking. Exacerbating the problem is the parking tax, which at the time was 31 percent. In 2004, City Council raised the tax to 50 percent. Because of entering into Act 47, coming under the watch of an oversight board, and receiving an overhaul of the taxes levied by the City, the parking tax fell in steps from 50 percent to 37.5 percent in 2009. It was to end its reduction at 35 percent in 2010, but the state's pension overhaul contained a provision in which the tax would stay at 37.5 percent with a portion of the revenue going to the City's pension contribution. Then, if the Mayor's proposed lease or sale of parking garages is successful and the proceeds of the sale are deposited with the state's municipal pension system, the parking tax would be raised to 40 percent with all of the revenues from the additional 2.5 percent used for funding pensions.^{xiii}

Since then there has been on-going discussion as to whether or not to maintain a high tax, somewhere near 50 percent, to continue generating funds for annual budget shortfalls. This tax has been widely criticized by the private sector and some public officials as a significant burden on employers and employees because it was a direct pass-through that consequently increased parking rates by at least 50 percent. The Pittsburgh downtown area has one of the highest parking rate schedules in the United States and growth has remained relatively stagnant over the last decade.

Implications of a Parking Tax Increase in Philadelphia: Lessons Learned From Pittsburgh

Based on the circumstances in Pittsburgh, the City of Philadelphia proposed to increase the parking tax from 15% to 20%, a proposal that was defeated. Support from a range of business organizations, hotel, office building and restaurant associations, sports teams and publicity campaigns that included handing out flyers and postcards were part of the winning effort. A key weapon against the hike was a study done by a public relations firm for the Philadelphia Parking Association that outlined the negative economic impacts of a parking tax increase. The article includes the executive

summary of the study, which is titled, "Implications of a Parking Tax Increase in Philadelphia: Lessons Learned from Pittsburgh." The summary included the following key observations: Pittsburgh saw a decline of 1.3 million transient parkers; parking rates rose more steeply than the tax because of higher operating costs; there was a dramatic decline in evening and weekend parkers downtown, resulting in a marked decrease in shoppers and patrons of cultural events, restaurants, theaters, sporting events and museums. For Philadelphia, among the anticipated effects included are higher parking rates, decrease in evening and weekend shopping and entertainment activity, decline in retail sales and a reduction in tax proceeds from sales taxes, a rise in office vacancy rates and drop in assessments.^{xiv}

Most municipalities have a parking tax that is collected by either, the parking department, or it may be pledged partially or in whole to an enterprise or project fund or is directed into the general fund as a sales tax. A tax has great value and can generate significant revenue as long as parking rates can be controlled and do not pass a level that pushes development or employment into non-paid parking areas, such as an adjacent community or state. A parking tax is typically a straight percent rate tax and the largest benefit is that the tax should be implemented so that it affects both public and private parking owners alike so that the private sector is not unfairly pigeon-holed as taxable parking while the public sector is tax-free and therefore can provide lower rates and attract parkers away from the private sector.

The taxes collected, as always recommended in this text, would be returned to the parking department to support the parking system and incentivize continued economic development. If a tax, and subsequent parking rates, are too high (relatively speaking) and contribute towards stagnant growth, then the objective is defeated and the tax should be decreased or repealed.

Another way to generate revenue and create a nexus that benefits development, reduces congestion and supports alternative transportation in a user-friendly manner is discussed in the following section.

4.6. SMART GROWTH SURCHARGE

Smart Growth (also called *New Community Design*) is a general term for policies that integrate transportation and land use decisions, for example by encouraging more compact, mixed-use development within existing urban areas, and discouraging dispersed, automobile dependent development at the urban fringe. Smart Growth can help create more accessible land use patterns, improve transport options, create more livable communities, reduce public service costs and achieve other land use objectives. Smart Growth is an alternative to urban sprawl. Major differences between these two land use patterns are compared in the following table.^{vii}

SMART GROWTH BENEFITS

	Smart Growth	Sprawl
Density	Compact development.	Lower-density, dispersed activities.
Growth pattern	Infill (brownfield) development.	Urban periphery (greenfield) development.
Land use mix	Mixed land use.	Homogeneous (single-use, segregated) land uses.
Scale	Human scale. Smaller buildings, blocks and roads. More detail, since people experience the landscape up close, as pedestrians.	Large scale. Larger buildings, blocks, wide roads. Less detail, since people experience the landscape at a distance, as motorists.
Public services, shops, schools, parks	Local, distributed, smaller. Accommodates walking access.	Regional, consolidated, larger. Requires automobile access.
Transport	Multi-modal transportation and land use patterns that support walking, cycling and public transit.	Automobile-oriented transportation and land use patterns, poorly suited for walking, cycling and transit.
Connectivity	Highly connected roads, sidewalks and paths, allowing relatively direct travel by motorized and nonmotorized modes.	Hierarchical road network with numerous loops and dead-end streets, and unconnected sidewalks and paths, with many barriers to nonmotorized travel.
Street design	Streets designed to accommodate a variety of activities. Traffic calming.	Streets designed to maximize motor vehicle traffic volume and speed.
Parking supply and management	Limited supply and efficient management,	Generous supply, minimal management.
Planning process	Planned and coordinated between jurisdictions and stakeholders.	Unplanned, with little coordination between jurisdictions and stakeholders.
Public space	Emphasis on the public realm (streetscapes, pedestrian environment, public parks, public facilities).	Emphasis on the private realm (yards, shopping malls, gated communities, private clubs).

As shown in the table as it relates to parking is the approach of limiting parking supply combined with efficient management as compared to over supplying parking and providing limited management. Both examples are quite common across the United States. However, many communities that have not controlled the parking supply or demand are now faced with a difficult decision of how to support economic growth in a difficult economic period. Efficient land use and creating “nodes” of activity have become critical for downtowns to grow, attract investment, obtain new investment financing and continue to grow. This approach is nearly impossible without control of an efficient well managed parking system. Cities like Manchester and Dover, New Hampshire and Pompano Beach, Florida have, over the past six or seven years been able to attract investor and developer interest, but unable to “close the deal” because parking has been an unknown to the development community.

Developers, investment and financing do not like uncertainty. The more control and understanding of the land uses and the short- and long-term plans of the community along with leadership provided by both a compassionate and passionate economic development department, the more likely development would succeed. The cities of Manchester and Dover have both created downtown plans and reorganized their parking systems to create certainty and to attract and “close” development deals and have had very good success in this difficult economic down turn. The City of Pompano has implemented several new methods to work more in a partnership

manner with the private sector to encourage and clarify the future of land use development by becoming a significant financial and integrated partner with the developer. In most cases, certainly, those cities cited in this report, the way in which parking is provided has played a significant role in the creation of partnership agreements between the public and private sectors.

As an aspect of smart growth and working to support development is the creation of smart growth surcharges. Smart growth surcharges have been considered by the private sector parking operators, and facility and system owners for at least two decades, but the technology available to owners and operators has made it difficult or impossible to manage because of the inherent complexity. There are several aspects to smart growth including, but not limited to:

- Management techniques;
- Capital expenditures and green buildings; and
- Public/private partnerships.

Each of these items incorporates both incentives and disincentives as part of successful implementation as discussed below.

4.6.1. MANAGEMENT TECHNIQUES

Management techniques and smart growth can cover a broad range of programs, but the most common are using dynamic way finding to more effectively use the existing parking supply and to reduce congestion caused by drivers searching for parking and congestion pricing. The City of Milwaukee has pursued and is implementing dynamic way finding systems in their “Park Once” program that directs parkers, at least during Summerfest season, to the parking supply and then connecting those same event attendees to the different areas of the downtown by transit. The City’s of Minneapolis/St. Paul, Charlotte Center City, NC, and Dallas, TX are among a rapidly growing community of constituents who are leading the way, primarily due to mandates by the government to reduce congestion or are in non-attainment areas. Technological advances in both hardware and management software have enabled owners to implement dynamic way finding systems more easily and in a financially feasible manner.

Although there is always a cost of improvements, even management improvements, the cost has to be considered as relative to the cost of the next best alternative. Consequently, an investment in technology is usually less expensive and less land intensive than building new parking.

Other management techniques are implementing a higher rate structure during peak periods of the day. This is a technique to manage parking behavior and spread the peak hour over a longer period of time. The resultant benefits are reduced congestion, associated increase in safety and decreased auto-related air pollution. This technique has been commonly seen as “early-bird” specials where early parking commuters are provided a discounted rate and are usually directed to areas in the garage that tend to fill last. The other aspect of this technique, which is emerging now, is congestion pricing where parkers are charged higher rates during peak periods in the morning and afternoon to enter or exit a parking facility. This same approach can be used with the newer high tech, on-street adjustable rate parking meters or pay stations. The benefit is increased revenue during peak periods under higher demand and/or reduced congestion by spreading out the peak periods.

Once again, the objective is to manage the existing parking system to obtain the highest efficiency possible and to generate revenue that can be used to support economic development. Land is much better utilized for private development and generation of new property taxes and the addition of new employees than to provide publicly owned parking. At such time, new parking is required to support development, the management efficiencies are already in-place and the cost to provide new parking can be minimized. This can be the difference between successful development and failure or procrastination.

4.6.2. CAPITAL EXPENDITURES AND GREEN BUILDINGS

As in new development all across this country, the aspect of LEEDS certification or at least, green buildings have had a positive impact on new and existing parking



garages and lots. As capital expenditures are identified or occur, either for improvements or for new facilities, life cycle costs on the environmental impact and cost savings achieved (or not) through green design is highly recommended and rapidly becoming standard practice in municipalities and universities, medical centers and even private parking facilities. Even surface lots can be developed with green concepts in mind related to lighting, water

retention and pollution, striping and landscaping. Parking structures, like any building type, have a long list of green related techniques that should be followed as long as the return to the owner/community outweighs the costs to implement. This is a decision that should occur before any capital expenditure are made related to parking, including long term life cycle cost/benefit and evaluation of unintended consequences, if any.

4.6.3. PUBLIC/PRIVATE PARTNERSHIPS (3P)

In any partnership between the public sector and private sector, there is an opportunity to negotiate smart growth. As in Charlotte, NC, developers were encouraged to work together to provide mixed-use parking facilities that would serve multiple developments, in turn for density bonuses. This partnership is more difficult because it involves multiple private entities to work together along with the public sector. It has been successful in Charlotte and has been also implemented recently in Austin, TX. The cities of Miami Beach and Miami, FL, Lansing, Michigan, and Arlington Heights, IL have also implemented similar successful programs.

One way in which this was accomplished is for a city to identify or offer in a RFQ/RFP process one or more land parcels (Miami Beach offered 32 parcels) owned by the city to the private sector for development and the provision of parking. The private sector can assemble additional parcels much easier than a public entity and with less controversy. The city then selects and negotiates a public/private partnership from the submittals and decides if, and how much the city should subsidize new development. As discussed in the following section, there is a simple methodology to calculate the economic benefit of a new development and

consequently the amount of financial investment a city might make. However, it is more difficult to determine the increase in the quality of life provided by a certain development or the loss of city benefits associated with losing existing employment.

The following chapter intends to wrap up the policy discussion discussed to this point and apply them in a manner appropriate to the issues challenging the City of Milwaukee.

5. MISCELLANEOUS PARKING DEVELOPMENT PROCESSES AND DEFINITION OF TERMS

The following provides several sections on basic needs associated with the decision-making process in determining the financial feasibility of a parking project whether or not the garage is associated with additional development or not.

5.1. LEGAL CONSIDERATIONS

The enabling legislation that establishes a parking authority or other municipal parking operation may contain specific legal requirements and may stipulate the continuing availability of legal counsel. Whether or not this is required, it is advisable. In many instances, the city attorney or the designated attorney serving the parking authority provides such ongoing legal advice. In many instances, the city attorney will attend all public meetings held by the parking authority in order to provide answers to legal questions that may arise. Some legal opinions can be given immediately; others will require research and an answer at a later date.

In addition to the ongoing legal advice, there are a number of specific instances in which legal advice will be needed:

1. In connection with the sale of bonds or other financing, including:
 - Legal authority;
 - Financing parameters such as maximum interest rate, bond discount, term, tax and debt limitations, registration requirements; and
 - Legal provisions for bond offering or negotiated sale.
2. Special opinions and guidance by counsel in order to maintain the tax-free status of bonds used to finance parking facilities.
 - Compliance with terms of the indenture;
 - Compliance with various IRS regulations and letter opinions such as maximum number or percent of spaces in a publicly financed garage that could be allocated or earmarked for a private company; and
 - Basis for contracting with a private company to operate a publicly financed garage.
3. In connection with bidding and purchases;
 - Compliance with various laws governing the bidding process; and
 - Determining that the bidders have complied with all requirements.
4. Actions and reviews mandated by the indenture;
 - Periodic reports of finances provided on an annual basis;
 - Official audits; and
 - Periodic inspections of operations and physical plant to be performed by a qualified professional.
5. Limiting liability by anticipating problems that could arise and advising the parking agency on proper actions. The question of limiting liability is an increasingly serious issue and requires special legal counsel to minimize such problems. Examples include:
 - Security of person and property within public garages and surface lots;
 - Signs disclaiming liability such as no bicycle riding or skateboarding

- allowed in garage;
 - Printed and posted disclaimers on tickets and at entry points disclaiming responsibility for loss through fire, theft, collision, or otherwise to the automobile or its contents;
 - A public parking system must recognize appropriate federal, state and local laws and regulations relating to its operations. Special legal advice should be sought in this regard;
 - Federal regulations include such matters as:
 - environmental and air quality;
 - IRS regulations affecting the tax-free status of bonds that were issued to finance parking facilities; and
 - equal opportunity and anti-discrimination provisions.
 - State regulations and laws may deal with:
 - enabling legislation to permit the establishment of the parking authority or organization;
 - requirements on the disposition of funds generated by on-street facilities and off-street facilities;
 - the establishment of assessment districts or other special financing techniques; and
 - the issuance of bonds, limitations on interest rates, limitation on bond discount and other matters.
6. Local ordinances usually encompass:
- On-street parking regulations;
 - Parking provisions of zoning ordinances, including such matters as:
 - the numbers of spaces required for various land-uses in various zoning districts;
 - parking standards such as size of stalls and facilities, lighting, surfacing, landscaping;
 - exemptions that “grandfather” provisions for parking requirements in certain areas such as the CBD; or
 - the establishment of a framework to support assessment program.

5.2. FINANCIAL FEASIBILITY STUDY

When a city plans a new parking facility, normal and prudent planning calls for the preparation of a financial feasibility study. The purpose of the study is to estimate the

cost and income potential over the period of amortization. A financial feasibility study is an evaluation of the estimated future financial performance of a proposed project under an assumed set of circumstances. It can be simple or complex, depending on its purpose. A financial feasibility study is usually prepared at either of two levels of detail:

1. A formal, detailed report for revenue bond financing. The report is frequently included in the official statement to help document the need for and the financial viability of the project; and
2. A less formal and detailed preliminary report, prepared to establish what the project can cost, to determine how future annual income and costs compare, to decide whether the project should go forward, and possibly as

the first step in the formal feasibility study.

There is no universally applicable definition of a feasible project. The traditional test of financial feasibility in past years was an estimated debt coverage ratio of 1.25 or higher. Feasibility is a relative term that should be viewed in the context of the many factors affecting the particular project under analysis. The same numerical findings (of debt coverage ratio) in two different projects may represent divergent findings and one project might be "feasible" and the other "infeasible." There are numerous examples of when and why this might occur:

- For example, separate feasibility analyses prepared for Garage A and Garage B might each conclude that the estimated debt coverage ratio (or the net revenue divided by the debt service) was 1.20. Normally, a debt coverage ratio of 1.20 would be inadequate to support the sale of revenue bonds but would be acceptable for general obligation bonds or for certain other types of financing. Thus, financial feasibility may be controlled by the method of financing available and not by the debt coverage ratio alone.
- Another example is that the financial feasibility study did not take into account factors such as future competition or changes in the market. Additionally, the owner may be prepared to subsidize a proposed garage and, therefore, the project is considered financially feasible if future subsidies are projected to fall within an acceptable range.
- Feasibility can also hinge on the parking demand or traffic engineering characteristics of the potential garage site. The analysis may indicate that the site is ideally located to serve the intended parkers and that the dimensions of the site are compatible with an efficient garage design. However, the adjacent street may lack the reserve capacity to accommodate the traffic volumes that would be associated with the garage. Unless access can be improved to provide sufficient capacity, an otherwise feasible parking project would be infeasible.

The parking feasibility study may be the linkage by which parking is provided to a new development. The land-use that will generate parking demand can be a new office building, a retail center, an institution or a central business district (CBD). Normally, when a new development is proposed, two supporting activities are initiated in parallel; 1) an economic and/or market study, and a 2) preliminary site planning and building concept design.

If the new project is to be served primarily by automobile, it will require parking capacity. Usually, an early spin-off from the project planning is a preliminary definition of parking characteristics including conceptual or estimated number of peak parking spaces required to serve the project.

In the early planning stage, a parking feasibility analysis is usually appropriate, depending upon the financial position that the parking facility will occupy. If the financial success of the parking facility is going to control whether or not it has committed financing and will be constructed, the feasibility study is essential. On the other hand, a developer of a project may regard parking as an essential supporting service that must be provided under any circumstances and is interested only in seeing that the project will generate marginal revenues to help underwrite infrastructure costs associated with the project.

At least a preliminary analysis of financial feasibility should be prepared early in the

project planning phases when the project parameters are flexible. It is important to understand the potential design alternatives, construction costs, access locations and design, on- and off-site traffic impacts and method of operation before knowing the effect each of these variables could have on the overall feasibility. Complex mixed- or multi-use projects are especially sensitive to parking operations and understanding the alternatives to provide maximum flexibility in the early planning stages can be critical.

A specific feasibility study may include many steps, the evaluation of numerous alternatives, and a series of sensitivity analyses. The initial steps are to identify the project guidelines and assemble the necessary background data to support the analysis. During the initial stages of a study, at a minimum, the following questions should be addressed:

- Who are the intended parkers including employees, retail patrons, visitors, patients, event attendees, others?
- Is the garage controlled and a pay garage?
- Where is the garage to be located and how does it relate to the site and its trade area?
- What are the physical characteristics of the garage such as basic concept, preliminary ideas on its size, method of control, and other physical characteristics?
- What is the initial financing concept including bond parameters, availability of grants, tax-exempt or taxable implications, buy-downs or guarantees by one or more public or private entities?
- When is the garage proposed to be open for use?

It may be necessary to analyze the project from a number of different perspectives, through an iterative process, in order to test the effect that changing certain project guidelines may have on the feasibility. The process may "loop" several times, each time concluding that the financial performance of the project would not be favorable. However, a satisfactory pro forma can always be developed, depending on whether or not some or all caveats are acceptable to the owner or stakeholders.

At a minimum, an economic feasibility study includes three parts: 1) demand estimation, 2) estimation of net revenues, and 3) the pro forma until debt retirement. Typically, the financial feasibility or economic feasibility services provided by a parking professional includes seven steps:

1. Demand estimation.
2. Estimate of net revenues.
3. An examination of financial feasibility under alternative financing programs using estimated construction costs.
4. Completion of several iterations to reach the best set of development guidelines.
5. The results of the study would be summarized in a report. At this point, if the project appears to be feasible, the city would normally retain an architect to prepare plans as a basis for receiving construction bids.
6. Refinement of the initial feasibility study to reflect construction bid cost.

7. Preparation of the documentation for the official statement. Usually, this consists of a shortened version of the economic feasibility study and would be included as an appendix in the official statement.

An optional and recommended eighth step would be to have the feasibility consultants meet with the bond rating agencies. In some cases, a city or parking authority will arrange a meeting with the New York bond rating agencies for the purpose of describing the project, its needs and its financial backup, along with selected background data designed to enhance the rating to be determined by the bond rating agencies. A competent and experienced parking consultant familiar with the feasibility analysis will be a critical member of the presentation team when marketing the bonds to bond counsel, underwriters and buyers.

5.3. BOND RATINGS

Parking revenue bonds have risks usually absent from other municipal debts. Unlike the natural monopolies of most municipal enterprises, parking systems are highly vulnerable to competition. Moreover, demand for parking, a key component of credit quality determination, is more volatile than for other types of services. The closing of a single store or similar economic dislocation may have a significant impact on parking revenues, since the "service area" of a typical garage extends only a few blocks. In addition to these "site specific" concerns, parking demand in a larger geographical region can fluctuate due to such factors as gasoline shortages, urban renewal programs and expansions of mass transit systems.

Investors are well aware of the possible problems that can confront a parking system and affect the ability of the city or a parking authority to repay the revenue bonds^{xv} principal and interest. There are some institutional investors that have adopted an investment policy of not buying parking bonds at all, unless they are the general obligation of the municipality because of the fear over the long-term that parking garages will be empty of vehicles, for a variety of reasons.

In the past, however, one of the primary positive moves that a municipality can accomplish toward gaining market acceptance of a new parking bond issue was to receive an investment grade rating from Moody's Investment Service, or Standard and Poor's Corporation. The credit rating on a debt security is the expression of opinion of the rating agency of the relative degree of probability of the timely repayment of the interest and principal. These rating agencies charge a fee (to the issuer) for their rating analysis work, commensurate with the time and expense of their analysis. When the agencies conclude their analysis of a new bond issue and assign a rating, it is published in each company's weekly publication, as well as being announced to other municipal trade organs, such as the Daily Bond Buyer and the Munifacts broad tape system.

Because of the inherent vulnerability of a single parking facility to meet projected revenues over a long period of time equal to the retirement schedule of a bond issue-it is rare to find a high rating or any rating at all applied to a bond issue supported by a single facility. This will hold true almost regardless of the projections made by parking consultant or advisors in an economic feasibility report.

There is an inverse relationship between bond ratings and new issue's interest rates, i.e. the higher the rating, the lower the rate of interest. Thus, it is beneficial for any municipality or parking authority planning to issue parking bonds to place behind these bonds the highest degree of legally, economically, and politically

advisable security. Investors placed a great deal of faith in the bond ratings of Moody's and Standard and Poor's. This faith resulted in many high risk mortgage securities being traded as low risk instruments over the past few years, ultimately leading to the passage of the Dodd-Frank Financial Reforms in July 2010. It is unclear what effect this reform will have on the ratings agencies, but it does significantly change the liability that the ratings agencies have for their opinions.

The objective in marketing parking financing is to create the highest degree of investor interest in the new bond prior to and after the sale, and the most effective way to accomplish this end has been to obtain the highest rating possible. The rating agencies tend to emphasize existing parking demand. Projected office building construction is of less importance to a rating, since these estimates can be highly unreliable or new growth may not occur.

If a garage expansion is proposed, the historical occupancy rate or the number of people on waiting lists for monthly parking must be given. There are no minimum coverage levels for a particular rating. All other things being equal, higher coverage of debt service by net revenues and the system size and diversity may outweigh coverage considerations if the rate covenant provides adequate time to raise rates as necessary. In such cases, the history of rate adjustments also would be significant.

The rating agencies assess the parking system management primarily by the feasibility of their expansion plans, the extent of annual maintenance and their willingness to raise rates as necessary to maintain an adequate coverage ratio.

The documentation normally required for submittal to the rating agency includes:

1. three years of audits;
2. current budget;
3. feasibility study; and
4. capital improvement/expense program.

5.4. OFFICIAL STATEMENT AND BOND INSURANCE

In addition to the documentation noted above that is required for the initial rating, continuing documentation needs to be provided on an annual basis to maintain a bond's rating. The official statement typically includes:

1. annual financial reports;
2. annual budgets; and
3. surveillance reports on garage construction and/or repair and maintenance.

Three insurance groups issue policies of bond insurance for municipalities and Public authorities. Companies writing such new issue municipal bond insurance are Municipal Bond Insurance Association (MBIA), sponsored by Aetna Life Insurance Company and three other insurance companies; American Municipal Bond Assurance Corporation (AMBAC), a subsidiary of MGIC investment corporation, Milwaukee; and Financial Guarantee Insurance Company (FGIC). Policies offered by these firms provide insurance to the issuer covering the prompt and full payment of interest on and principal of a specific bond issue, from the date of issuance to the final date of maturity. Premiums charged by each of these firms varies somewhat, depending upon the inherent investment quality of the bond issue, without reference to any insurance but ranging from a low of about 0.6 percent to a high of 1.5 percent of the aggregate of principal and interest payable over the life of the bond issue to "final maturity". This is a one-time charge, payable when the policy is

issued, and it can be included in the cost of financing and be paid from bond proceeds.

Generally, the insurance firms require that the bonds have a basic quality without insurance, at least equal to "investment grade" or BBB by Standard and Poor's Corporation before they will write the insurance policy. However, once one of the three insurers listed above has granted insurance, the two rating agencies automatically assign a rating of AAA or AA to the insured bond issues.

Insurance is helpful for small systems and in certain cases, if necessary, Standard and Poor's engages consultants to assess the risk of eight natural hazards, such as earthquakes for each county in the country. If a garage is in an area with a greater than five percent risk of 50 percent or more destruction before final bond maturity, special natural hazard insurance or building procedures are required for at least a BBB rating.

Bond insurance policies do provide the issuer of parking bonds with a rating that is usually higher than obtainable without insurance. Obviously, this higher rating is directly reflected in the lower interest costs to the issuer. However, it does behoove the issuer of parking bonds to examine carefully the overall cost of the financing under both premises, with the insurance and its premium charge, and without insurance with a higher rate of interest. A general rule of thumb is that the basic bond issue with a BBB or A rating will benefit from the purchase of insurance, but for AA or AAA rated issues, the cost of the insurance outweighs the interest rate advantage.

5.5. DEVELOPMENT COSTS

The cost of developing a new parking facility, if revenue bonds or similar financing methods are used, will be substantially more than the bid construction costs. The additional costs associated with such a project usually include fixed costs and variable costs. Unlike fixed costs, the variable costs could change as the terms of the bond issue change.

5.5.1. FIXED COSTS

Design fees may range anywhere from three to six percent or more of construction cost. There are additional fees and costs for various tests that may include geotechnical studies or borings and other site inspection, construction inspections and special studies required before and during construction. These costs vary widely but are usually lump sum or not-to-exceed fees and many are dependent on construction duration and the complexity of the project.

The expenses of issuing the bonds, covering the fee of a financial consultant, the bond attorney, printing the bonds, and similar costs may approximate two to four percent of the issuance costs, depending upon the size of the project and its complexity.

A repair and replacement reserve (sometimes referred to as the R & R) is usually established from the proceeds of the bond issue for the purpose of meeting any emergency repairs that might be required during the life of the structure. The amount of the R & R reserve may range from \$100 to \$400 per space, depending upon the size of the garage and whether or not other funds may be available to help meet such emergencies.

5.5.2. VARIABLE COSTS

Sometimes the costs of financing are referred to as "soft costs," as opposed to the hard costs of the construction. They can increase the project cost by as much as 30 to 50 percent above the construction cost.

Conservative, short-term investments during the capitalized period (the first 12 to 18 months after selling the bonds) can reduce soft costs and consequently the size of the bond issue. In the months following the bond sale, the developing agency retains most of the proceeds until needed for payout to the contractor, normally on a monthly basis according to the amount of expenses that are incurred. The unexpended funds can earn interest prior to construction draw-down. On a large project, the income derived from this source can be sizable.

A one-year debt service reserve is usually established from the proceeds of the bond issue. The size of this reserve will depend upon the size of the bond issue and the annual debt repayment schedule. If a non-level debt service applies to the issue, then the debt service reserve is normally the maximum amount that must be paid during the term of the bond.

A bond discount is usually included, where legal, and represents the cost of marketing the bonds. Bond discount may represent two percent or so of the face value of the bond issue.

Interest is typically capitalized for the initial months between the time the bonds are sold and the garage opens, or perhaps a few months after the garage opens. During this period of time (12 to 24 months), no revenue is generated by the facility but interest must be repaid on the bonds. A common practice is to capitalize this cost and the amount of it that will be related to the interest rate, the number of months and the size of the bond issue.

Bond insurance may or may not be included in the project, if it is; the cost is usually covered by the proceeds of the bond issue. Bond insurance will usually range from about 0.5 to 2.0 percent of the aggregate amount of the principal and interest that will be repaid during the term of the bond.

6. ENDNOTES

-
- ⁱ Pare passé bonds are bonds where additional securitization is provided.
- ⁱⁱ Financial Considerations in Parking Development, Jean M. Keneipp, 1985.
- ⁱⁱⁱ City of Milwaukee, DCD PowerPoint Presentation, Marquette ACRE Class, march 3, 2010.
- ^{iv} Parking Matters: Designing, Operating, and Financing Structured Parking in Smart Growth Communities, July 2006.
- ^v The Milwaukee Streetcar_2.ppt, HNTB/DCD, 12/21/2009.
- ^{vi} Parking Study of the Greater Milwaukee Area, Draft Existing and Future Parking Conditions, 2010.
- ^{vii} *ibid*
- ^{viii} *ibid*
- ^{ix} *ibid*
- ^x <http://ncppp.org/>
- ^{xi} Standard and Poor's and E. Carlton Heeseler.
- ^{xii} Parking Matters: Designing, Operating, and Financing Structured Parking in Smart Growth Communities, July 2006.
- ^{xiii} <http://www.alleghenyinstitute.org/taxes/parkingtax.html>
<http://www.alleghenyinstitute.org/component/content/article/446.html>
- ^{xiv} <http://www.npapark.org/pdfs/citypark/38.%20Parking%20Taxes%20in%20Pittsburgh%20and%20Phila delphia.pdf>
- ^{xv} Note the difference between the size of a bond issue and the aggregate principal and interest payable over the term of the bond issue. For example, a revenue bond issue of \$5,000,000 at 10 percent interest for 30 years would have a level debt payment of \$530,396 and the total aggregate principal and interest would be 30 x \$503,396 or \$15,911,880.
- ^v Journal of Planning Education and Research, Donald C. Shoup, 1999, <http://shoup.bol.ucla.edu/InLieuOfRequiredParking.pdf>
- ^{vi} Smart Growth-More Efficient Land Use Management May 2010 <http://www.vtpi.org/tdm/tdm38.htm>