UB SCHOOL OF MEDICINE & BIOMEDICAL SCIENCES
PARKING STUDY

October 2012
UNIVERSITY AT BUFFALO
SMBS
PARKING STUDY

Prepared for:

State University Construction Fund
State University Construction Fund
353 Broadway
Albany, New York 12246

University at Buffalo
The State University of New York

University at Buffalo
12 Capen Hall
Buffalo, New York 14260

Prepared by:

GPI
Greenman-Pedersen, Inc.

80 Wolf Road, Suite 300
Albany, New York 12205
Executive Summary

The following are the key findings of this study of the parking need for the planned University of Buffalo SMBS facility at the Buffalo Niagara Medical Campus:

1. Locating the SMBS within the BNMC will create the demand for additional parking. Although there is a substantial supply of off street parking in the immediate BNMC area, previous studies have shown that there will be a parking deficit within the BNMC upon completion of all the current plans for additional development by BNMC partners. This indicates the SMBS development plans must provide for sufficient parking on its own and will not be able to rely on any unused parking surplus within the BNMC.

2. The SMBS is forecasted to serve a population of 1,852 people upon completion of the Phase I plan, expected to be completed in 2016. Phase II, expected to be completed by 2023, will add an additional population of 122 people bringing the total population to 1,974.

3. It has been determined that planning for the SMBS parking demand will focus on the Phase I needs since the Phase I needs are more imminent and the plans for Phase II are not as well defined at this time.

4. The total parking demand for the Phase I of the SMBS is 1,103 spaces. Of these spaces it is recommended 655 spaces be located within a 5 minute walk (800 FT) of the SMBS. This parking has been defined as “Tier I”.

5. This “Tier 1” demand would best be met through using the existing supply available to the SMBS at the MiGo Ramp (520 spaces) and UB/SUCF partnering with others within the BNMC in the construction of a new/expanded parking structure located to provide the remaining 135 Tier 1 spaces.

6. The remaining Phase I parking demand of 448 spaces can be met through a combination of using the available supply at existing parking outside the 5 minute walking boundary, directing some students to use the available parking and transit service connection between the UB South Campus and the SMBS, and the creation of new parking supply at either the Best or Allscripts locations.

7. The additional parking demand that will be created by the Phase II SMBS program, currently scheduled to add additional 122 people by 2023, could be accommodated by the successfully implementing Transportation Demand Management strategies without adding any additional parking supply.

8. The traffic impact of the SMBS can be quantified once the final parking strategy is determined. The previous traffic studies prepared for the Children Hospital of Buffalo (2012) and the BNMC (2010) contain extensive traffic data and forecasts that any study of the SMBS traffic impacts can build on.
# Contents

Executive Summary ................................................................................................................. 3

Contents ................................................................................................................................. 4

1. INTRODUCTION .................................................................................................................. 5

   1.1. Study Area ..................................................................................................................... 5

   1.2. Existing Partners at the BNMC .................................................................................... 5

   1.3. Project Background ...................................................................................................... 7

2. EXISTING CONDITIONS .................................................................................................... 8

   2.1. Existing Parking Supply .............................................................................................. 8

   2.2. Existing Transportation System .................................................................................. 11

   2.3. Existing Area Parking Rates ....................................................................................... 11

3. CURRENT DEVELOPMENT PROGRAM .......................................................................... 13

   3.1. Current Program for the SMBS ................................................................................... 13

   3.2. Current Program for other BNMC Partners ................................................................. 13

4. SMBS PARKING NEEDS CALCULATION ....................................................................... 14

5. PARKING SUPPLY STRATEGIES .................................................................................... 20

6. TRAFFIC IMPACT REVIEW ............................................................................................. 21

   6.1. CHOB Traffic Impact Study (January 2012) By C&S Engineers ................................... 21

   6.2. BNMC Comprehensive Transportation Study (May 2010) By HSH/Walker .................. 22

   6.3. Summary of Traffic Impacts and Additional Studies Required ................................... 23

7. OTHER CONSIDERATIONS ............................................................................................... 24

8. FINDINGS AND RECOMMENDATIONS ......................................................................... 25
1. INTRODUCTION

**Proposed School of Medicine and Biomedical Sciences**

The University at Buffalo (UB) is planning and designing a new facility to house its School of Medicine and Biomedical Sciences (SMBS) on a site located on four contiguous parcels in the City of Buffalo near the westerly boundary of the Buffalo Niagara Medical Campus (BNMC). The subject parcels are bordered by Main St. (west), High St. (north), Washington St. (east) and Carlton St. (south). The site of the new SMBS is presented on Figure 1-1. The new SMBS will encompass approximately 520,000 gross square feet of space and will house educational and laboratory facilities that will serve approximately 1,852 students, faculty and staff. The site of new SMBS facility will incorporate an existing Niagara Frontier Transportation Authority (NFTA) station into its design that will encourage the use of the existing light rail system. Additionally, the SMBS may encompass the current parking lot for the Roosevelt Apartments, a low income senior housing building adjacent to the planned structure.

(GPI) has been retained by the State University Construction Fund (SUCF) to assist in evaluating the parking needs of the new SMBS facility within the context of the BNMC and developing a parking plan to meet these needs.

1.1. Study Area

The project study area is located in Buffalo, New York and encompasses the BNMC campus which is generally bounded by Goodell Street to the south; Main Street to the west; Michigan Avenue to the east; and East North Street to the north. In addition to this area, the study will also include an evaluation of available parking options on the UB South Campus which are suitable for a park and ride combination with public transportation. The study area and BNMC campus are shown in Figure 1-1.

1.2. Existing Partners at the BNMC

The BNMC is a consortium of health care, research and medical education institutions which are dedicated to creating a world-class medical campus. There are currently ten member institutions that make up the BNMC which include:

- Buffalo Hearing & Speech Center (BHS)
- Buffalo Medical Group (BMG)
- Center for Hospice & Palliative Care
- Hauptman-Woodward Medical Research Institute
- Kaleida Health (KH)
- Olmsted Center for Sight
- Roswell Park Cancer Institute (RPCI)
- Ross Eye Institute
- University at Buffalo (UB)
- Unyts

The staff, employees, researchers, patients and educators make a diverse user group for institutions which provide services that require a presence on the campus around the clock. These member institutions work collectively toward common goals such as reducing parking demand and contributing to providing additional parking supply to users.
1.3. Project Background

There have been numerous recent studies to evaluate the traffic and parking needs for the BNMC. A key part of these previous studies is quantifying the level of development at the BNMC with new projects recently completed, under construction, or in development. A list of the studies reviewed and relevant issues contained in each report is summarized below. The studies are presented in chronological order with the most recent report first. They are identified by Client, Type of Report, Title of Report, Date and Author and a brief description of relevance to this report:

- **Roswell Park Cancer Institute (RPCI), Clinical Science Center Project DEIS, May 2012, RPCI**
  The report indicated that the minor increases in staff, patients and visitors and vehicle trips as a result of proposed project would not generate a significant increase in parking demand. RPCI will lease approximately 200 additional spaces to accommodate the additional demand generated by the proposed project. Sufficient on-site parking has been provided for the project.

- **Kaleida Health (KH), BNMC Children’s Hospital of Buffalo TIS, January 2012, C&S Engineers, Inc.**
  The report is based on the BNMC North End Development TIS prepared in 2008. The report includes the development from 2008 TIS, The Children’s Hospital of Buffalo (CHOB), and the changes in parking supply which have occurred since the 2008 TIS. The report indicates a previously identified 350 space campus surplus on the 95th busiest day will be added to the project related supply essentially indicating every space on BNMC will be occupied. Even using the 350 space supply surplus previously identified, the project is expected to have a 660 space parking deficit. The report indicates that Kaleida Health will mitigate the parking deficit by utilizing the offsite Gates Circle Parking Ramp which will accommodate the full 660 space demand and will provide shuttle service to their BNMC facilities.

- **Buffalo Niagara Medical Campus (BNMC), Master Plan Update, December 2010, CKS**
  The report proposes a unified approach to future growth and expansion on the BNMC campus. The report outlines the framework, objectives and implementation strategies for transportation planning and parking efforts which is expected by each of the member institutions. The Master Plan indicated a net deficit of 3,000 parking spaces with demand from new development and displacement of existing surface parking.

- **Buffalo Niagara Medical Campus (BNMC), Comprehensive Transportation Study, May 2010, HSH**
  The comprehensive study evaluated existing conditions, short and long-term conditions, and proposed solutions and implementation strategies relating to transportation and parking. Short-term parking improvement recommendations include the newly constructed Michigan-Goodrich parking ramp and a parking ramp integrated with the construction of the Medical Office Building to offset the loss of the surface parking due to construction. Long-term parking improvement recommendations include construction of a parking ramp at the 589 Ellicott Street surface parking lot. Additionally, the study includes a generic discussion of a parking ramp to accommodate future UB development. The study also examines pricing and TDM strategies to reduce the number of drive alone trips and reduce the parking demand on the BNMC campus through transit, rideshare, and promotional incentives.

- **Buffalo Niagara Medical Campus (BNMC), Future Conditions Report (2009-2014), Nov 2009, Walker**
  The study evaluated the short-term parking supply/demand for the BNMC campus and made recommendations to accommodate the expected short-term development. Recommendations include a new parking structure (MIGO Ramp) and a small parking ramp to be integrated with a proposed Medical Office Building.

- **Buffalo Niagara Medical Campus (BNMC), Existing Conditions Report, April 2009, Walker**
  The report evaluated the existing parking supply/demand for the BNMC campus. Existing supply and occupancy counts were performed for all parking facilities on the medical campus.

- **University at Buffalo, State University of New York (UB), Building UB, April 2009, UB**
  The plan discusses the expected growth and expansion for UB including the relocation of the SMBS to the BNMC campus.

GPI has conducted a detailed review of these documents and, as appropriate, have used the data and findings presented in these documents to help prepare the findings in this report.
2. EXISTING CONDITIONS

2.1. Existing Parking Supply

The existing parking supply for the BNMC area is a mix of public and employer owned parking facilities. The BNMC manages several parking areas on the campus and tracks the parking supply available for member institutions. This information was deemed to be sufficient to determine an existing baseline parking supply number for the BNMC. The total BNMC parking supply as well as the current unused supply is quantified below. Note that the unused parking supply is more difficult to pinpoint because of the extensive development which is constantly evolving that creates additional demand and sometimes displaces some of the parking supply.

**BNMC Total Parking Supply**

The BNMC provided parking information which identified campus-wide parking supply separated into BNMC managed and Other Member Institution managed parking areas. The parking areas are identified on Figure 2-1 and are presented in the following tables. A list of abbreviations used in the following Tables and Figure 2-1 is provided below:

- MC – Medical Campus
- BHS – Buffalo Hearing & Speech
- RP – Roswell Park Cancer Institute
- UB – University at Buffalo
- BMG – Buffalo Medical Group
- KH – Kaleida Health
- LH – Lifetime Health

<table>
<thead>
<tr>
<th>ADDRESS</th>
<th>Map #</th>
<th>OWNER</th>
<th>MANAGER</th>
<th>EMPLOYEE SPACES</th>
<th>VISITOR SPACES</th>
<th>HC SPACES</th>
<th>TOTAL SPACES</th>
</tr>
</thead>
<tbody>
<tr>
<td>941 Washington St.</td>
<td>MC-1</td>
<td>BNMC</td>
<td>BNMC</td>
<td>59</td>
<td>0</td>
<td>2</td>
<td>61</td>
</tr>
<tr>
<td>33 High St.</td>
<td>MC-2</td>
<td>Private/KH</td>
<td>BNMC</td>
<td>30</td>
<td>42</td>
<td>3</td>
<td>75</td>
</tr>
<tr>
<td>140 Goodrich St.</td>
<td>MC-3</td>
<td>KH</td>
<td>BNMC</td>
<td>302</td>
<td>0</td>
<td>10</td>
<td>312</td>
</tr>
<tr>
<td>100 Goodrich St.</td>
<td>MC-4</td>
<td>KH</td>
<td>BNMC</td>
<td>124</td>
<td>0</td>
<td>0</td>
<td>124</td>
</tr>
<tr>
<td>50 High St.</td>
<td>MC-5</td>
<td>KH</td>
<td>BNMC</td>
<td>0</td>
<td>120</td>
<td>5</td>
<td>125</td>
</tr>
<tr>
<td>589 Ellicott St.</td>
<td>MC-7</td>
<td>BNMC</td>
<td>BNMC</td>
<td>624</td>
<td>0</td>
<td>15</td>
<td>639</td>
</tr>
<tr>
<td>854 Ellicott St.</td>
<td>MC-8</td>
<td>City</td>
<td>BNMC</td>
<td>0</td>
<td>860</td>
<td>32</td>
<td>892</td>
</tr>
<tr>
<td>134 High St.</td>
<td>MC-9</td>
<td>BNMC</td>
<td>BNMC</td>
<td>1,954</td>
<td>0</td>
<td>82</td>
<td>2,036</td>
</tr>
<tr>
<td>780 Michigan Ave.</td>
<td>MC-10</td>
<td>LDS Church</td>
<td>BNMC</td>
<td>40</td>
<td>0</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>779 Washington St.</td>
<td>MC-11</td>
<td>Eastman</td>
<td>BNMC</td>
<td>25</td>
<td>0</td>
<td>0</td>
<td>25</td>
</tr>
<tr>
<td>184 Goodell St.</td>
<td>MC-12</td>
<td>SJB Church</td>
<td>BNMC</td>
<td>75</td>
<td>0</td>
<td>0</td>
<td>75</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>3,233</strong></td>
<td><strong>1,022</strong></td>
<td><strong>149</strong></td>
<td><strong>4,404</strong></td>
</tr>
</tbody>
</table>
As shown in the tables above, there are currently 7,078 total parking spaces currently provided through either the BNMC or other member institutions on the campus.

### Unused Parking Supply

The major stakeholders and other member institutions including UB, Kaleida Health, Ciminelli, Roswell Park and the BNMC have recently collaborated to determine unused parking supply currently available within a short walk of approximately 5 minutes to the CHOB, MOB and SMBS facilities. In addition to identifying the unused parking supply, the stakeholders have identified short-term parking needs resulting from the development noted above which is discussed in Section 4. The current unused parking supply resulting from the stakeholder meetings includes spaces in the following facilities:

- **MiGo Parking Ramp (MC-9)** – 1,100 spaces
- **Physicians Lot (MC-4)** – 199 spaces
- **MOB Lot (Available after Construction)** – 322 spaces
- **EGG Ramp (MC-8)** – 522 spaces

There were a total of 2,053 parking spaces which were identified as available within the area defined as a “short walk”.

<table>
<thead>
<tr>
<th>ADDRESS</th>
<th>Map #</th>
<th>OWNER</th>
<th>MANAGER</th>
<th>EMPLOYEE SPACES</th>
<th>VISITOR SPACES</th>
<th>HC SPACES</th>
<th>TOTAL SPACES</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 E. North St.</td>
<td>BHS-1</td>
<td>BHS</td>
<td>BHS</td>
<td>87</td>
<td>15</td>
<td>7</td>
<td>109</td>
</tr>
<tr>
<td>942 Michigan Ave.</td>
<td>RP-1</td>
<td>RPCI</td>
<td>RPCI</td>
<td>1,219</td>
<td>289</td>
<td>66</td>
<td>1,574</td>
</tr>
<tr>
<td>610 Elm St.</td>
<td>RP-2</td>
<td>RPCI</td>
<td>RPCI</td>
<td>83</td>
<td>0</td>
<td>2</td>
<td>85</td>
</tr>
<tr>
<td>735 Ellicott St.</td>
<td>RP-3</td>
<td>RPCI</td>
<td>RPCI</td>
<td>17</td>
<td>0</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>45 Carlton St.</td>
<td>RP-4</td>
<td>RPCI</td>
<td>RPCI</td>
<td>99</td>
<td>3</td>
<td>2</td>
<td>104</td>
</tr>
<tr>
<td>955 Michigan Ave</td>
<td>RP-5</td>
<td>RPCI</td>
<td>RPCI</td>
<td>49</td>
<td>0</td>
<td>0</td>
<td>49</td>
</tr>
<tr>
<td>Michigan Ave</td>
<td>RP-6</td>
<td>RPCI</td>
<td>RPCI</td>
<td>26</td>
<td>0</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>N. Oak St.</td>
<td>RP-7</td>
<td>RPCI</td>
<td>RPCI</td>
<td>18</td>
<td>25</td>
<td>2</td>
<td>45</td>
</tr>
<tr>
<td>Maple St.</td>
<td>RP-8</td>
<td>RPCI</td>
<td>RPCI</td>
<td>54</td>
<td>0</td>
<td>0</td>
<td>54</td>
</tr>
<tr>
<td>107 Goodell St.</td>
<td>UB-1</td>
<td>UB</td>
<td>UB</td>
<td>190</td>
<td>0</td>
<td>8</td>
<td>198</td>
</tr>
<tr>
<td>85 High St</td>
<td>BMG-1</td>
<td>BMG</td>
<td>Allpro</td>
<td>50</td>
<td>138</td>
<td>12</td>
<td>200</td>
</tr>
<tr>
<td>Michigan and High</td>
<td>KH-1</td>
<td>KH</td>
<td>KH</td>
<td>75</td>
<td>0</td>
<td>2</td>
<td>77</td>
</tr>
<tr>
<td>853 Washington St.</td>
<td>LH-1</td>
<td>City</td>
<td>LH</td>
<td>134</td>
<td>0</td>
<td>2</td>
<td>136</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>2,101</strong></td>
<td><strong>470</strong></td>
<td><strong>103</strong></td>
<td><strong>2,674</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EMPLOYEE SPACES</th>
<th>VISITOR SPACES</th>
<th>HC SPACES</th>
<th>TOTAL SPACES</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,334</td>
<td>1,492</td>
<td>252</td>
<td>7,078</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Spaces</th>
<th>EMPLOYEE SPACES</th>
<th>VISITOR SPACES</th>
<th>HC SPACES</th>
<th>TOTAL SPACES</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,334</td>
<td>1,492</td>
<td>252</td>
<td>7,078</td>
<td></td>
</tr>
</tbody>
</table>
2.2. Existing Transportation System

2.2.1. Roads

The BNMC is located in downtown Buffalo and is well served by the grid network of streets. The streets vary from two lanes in each direction with parking on both sides as provided on Main Street to streets which provide a single lane in each direction with no on-street parking such as North Oak Street.

The three main north/south routes on the BNMC include Main Street, Ellicott Street and Michigan Avenue which serve as the primary arteries through the campus and all three streets are easily accessible from Kensington Expressway. Ellicott Street which is currently one-way northbound is expected to be converted to two-way traffic in the near future which will help with campus circulation and provide motorists with an additional option for exiting the campus to major expressways to the south.

The main east/west routes on the BNMC include North Street, High Street, Carlton Street and Goodell Street which provide access to several parking facilities and member institutions.

2.2.2. Transit

The BNMC is well served by public transportation including Metro bus and light-rail service provided by the Niagara Frontier Transportation Authority (NFTA). The campus is served by rail at the Allen Street/Medical Campus Station which allows travel both north and south toward downtown Buffalo or University Station, respectively. The 14 light-rail stations located along the Main Street corridor provide a unique opportunity for residents of the City to utilize transit to commute to the BNMC however, this opportunity is only effective if the service is priced competitively is convenient to users and regarded as safe to use.

Because the light-rail system extends to the UB South Campus there is an opportunity for UB to encourage/require students, faculty and residents to utilize the park & ride lots and rail system to access the SMBS in an effort to reduce the parking demand on the BNMC.

In addition to the Metro rail line, the BNMC is served by several Metro bus line routes including #7 Baynes-Richmond, #8 Main, #29 Wohlers and 2 new express routes which provide service to the campus. The UB Blue Line – Downtown Campus Connector provides hourly service from the UB South Campus to the BNMC including the following facilities:

- Buffalo General Hospital
- Roswell Park Cancer Institute
- Center of Excellence
- Educational Opportunity Center
- UB Downtown Gateway
- Allen Street/Medical Campus Station

Currently a monthly Metro Pass cost $75 which includes unlimited riding for the given calendar month. The Metro Pass would allow individuals the opportunity to take advantage of the several park & ride lots located around the greater Buffalo area. The park & ride lots located near University Station and LaSalle Station provide convenient access to the light-rail system and a short ride to the Allen Street/Medical Campus Station. NFTA also offers 30 Day, 7 Day and Single Day passes for $75, $25 and $5 respectively.

2.3. Existing Area Parking Rates

The parking provided on the BNMC is a mix of public and employer owned facilities which serve the diverse needs of employees, students, researchers, patients and educators. Parking rates are typically a function of current market rate, amenities and location. Parking facilities located in the North End of the BNMC are able to charge a higher monthly parking rate than the surface lots located on the South End of the campus due to the premium location convenient to several of the larger member institutions.

Because the BNMC serves a variety of users, the parking needs of these users are just as diverse from students or patients who have short-term parking needs to the employees or researchers who need a space on a daily basis. The following list identifies typical parking rates found in public surface lots and on-street
spaces throughout the campus:

Off-Street

- $1.00 per ½ Hour
- $7.00 - $8.00 Daily Max
- $6.00 Per Entry Valet
- $50.00 - $55.00 Monthly Permit (South End)
- $89.00 Monthly Permit (North End Premium)

On-Street

- $0.25 per 15 mins., 2-4 hour max

The North End premium monthly parking may be restricted to those eligible for a monthly permit through one of the member institutions. The monthly parking rates presented above are slightly less than some other premium parking facilities located near the Central Business District and City Hall which ranged from $93.00 to $130.00 for monthly permits. Non-premium parking located elsewhere in the City ranged from $40.00 to $55.00 for monthly permits. This indicates that current parking rates experienced on the BNMC are priced competitively with current City of Buffalo parking rates.
3. CURRENT DEVELOPMENT PROGRAM

3.1. Current Program for the SMBS

The new SMBS will encompass approximately 520,000 GSF of space and will house educational and laboratory facilities. By 2016 Phase I of the initial transition to the new facility will be complete bringing a total of 1,852 students, faculty and staff to the site. Phase II which is more speculative at this time, is expected to bring an additional 122 people to the SMBS resulting in a total population of 1,974 by the year 2023. The breakdown of the anticipated population is summarized below.

| Table 3.2 |
|------------------|-----------------|-----------------|-----------------|
| SMBS Anticipated Downtown Population | 2012 | 2016 | 2023 |
| "Existing" at South Campus | Phase I at SMBS | Phase I & II at SMBS |
| Medical Students YR 1-2 | 280 | 360 | 360 |
| Medical Students YR 3-4 | 280 | 360 | 360 |
| Medical Students YR 5 | 24 | 30 | 24 |
| Basic Science Students | 116 | 200 | 200 |
| Dean \ Admin | 113 | 130 | 152 |
| Basic Science Depts.* | 312 | 383 | 420 |
| Building Services | 80 | 80 | 80 |
| Library Staff | 8 | 8 | 8 |
| Simulation Center | 5 | 5 | 5 |
| LAF Staff | 15 | 15 | 15 |
| Clinical (Admin\Research) | 50 | 281 | 350 |
| **Total Population** | **1,283** | **1,852** | **1,974** |

*Includes Faculty, Staff, Post Docs

These population forecasts will serve as the basis for establishing the parking demand for the SMBS.

3.2. Current Program for other BNMC Partners

The BNMC has experienced significant development in recent years attempting to expand services and capabilities further establishing itself as a world-class medical campus. Some of the larger projects recently completed are as follows:

- HighPointe on Michigan – 200,000 GSF (Kaleida Health)
- Gates Vascular Institute and Clinical Translational Research Center – 500,000 GSF (Kaleida Health/UB)
- Michigan Goodrich (MIGO) Garage – 2,025 parking spaces (BNMC Member Institutions)

Other significant projects currently proposed in the North End of the campus where density is the greatest and parking is at a premium include:

- Medical Office Building – 500,000 GSF, 322 parking spaces (Private Developer)
- Children’s Hospital of Buffalo – 400,000 GSF (Kaleida Health)

As identified, there is 1,600,000 GSF recently completed or proposed facility space in the North End of the campus. Some of this new development displaces exiting surface parking which was used by various member institutions and as a result, there is expected to be a shortage of parking after completion of the identified development even with the 2,025 space MiGo Parking Ramp and 322 spaces include with the Medical Office Building. According to the CHOB TIS completed in January 2012 there would still be a shortage of approximately 660 parking spaces with the completed or the currently planned development. The study recommends that Kaleida Health provide shuttle service to the Gates Circle Ramp which could accommodate the parking shortage.
4. SMBS PARKING NEEDS CALCULATION

Calculation of Total Parking Demand for the Downtown SMBS

SUCF and GPI have determined that the most reliable way to forecast the parking demand for the Downtown SMBS is to use the overall population of users at the facility (students, staff etc.) and learn the work schedule and commuting dynamic of each user group and apply an appropriate parking ratio (spaces per person) to determine an overall parking demand. The parking ratio selected accounts for the inherent traffic and parking demand reduction of the proposed SMBS location. This method is consistent with other parking studies prepared for the BNMC. This analysis is reflected in Table 4.1 titled “Total Phase I SMBS Parking Demand” shown below.

<table>
<thead>
<tr>
<th>Users</th>
<th>Total Population</th>
<th>Ratio (1)</th>
<th>Spaces needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Students YR 1-2</td>
<td>360</td>
<td>0.70</td>
<td>252</td>
</tr>
<tr>
<td>Medical Students YR 3-4</td>
<td>360</td>
<td>0.30</td>
<td>108</td>
</tr>
<tr>
<td>Medical Students YR 5</td>
<td>30</td>
<td>0.30</td>
<td>9</td>
</tr>
<tr>
<td>Basic Science Students</td>
<td>200</td>
<td>0.70</td>
<td>140</td>
</tr>
<tr>
<td>Dean \ Admin</td>
<td>130</td>
<td>0.60</td>
<td>78</td>
</tr>
<tr>
<td>Basic Science Depts.*</td>
<td>383</td>
<td>0.60</td>
<td>230</td>
</tr>
<tr>
<td>Building Services</td>
<td>80</td>
<td>0.60</td>
<td>48</td>
</tr>
<tr>
<td>Library Staff</td>
<td>8</td>
<td>0.60</td>
<td>5</td>
</tr>
<tr>
<td>Simulation Center</td>
<td>5</td>
<td>0.60</td>
<td>3</td>
</tr>
<tr>
<td>LAF Staff</td>
<td>15</td>
<td>0.60</td>
<td>9</td>
</tr>
<tr>
<td>Clinical (Admin\Research)</td>
<td>281</td>
<td>0.60</td>
<td>169</td>
</tr>
<tr>
<td>Totals</td>
<td>1,852</td>
<td></td>
<td>1,050</td>
</tr>
</tbody>
</table>

* Includes Faculty, Staff, Post Docs

<table>
<thead>
<tr>
<th>Users</th>
<th>Total Population</th>
<th>Ratio (1)</th>
<th>Spaces needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visitors (2)</td>
<td></td>
<td></td>
<td>53</td>
</tr>
<tr>
<td>Total Spaces Needed</td>
<td></td>
<td></td>
<td>1,103</td>
</tr>
</tbody>
</table>

**Overall SMBS Parking Ratio**

0.60

Notes:

(1) Parking Demand Ratios expressed as spaces required per person
(2) Assumed to be 5% of total

This analysis resulted in a total SMBS Phase I parking need (regardless of location) of 1103 spaces providing an overall parking ration of 0.6 spaces per user. The less than 1:1 ratio of spaces per user reflects the consideration that not all users will need to be at the SMBS every day all day, some staff work other than day shifts, and not all users will commute by car.

**Tier 1 Parking**

**Definition and Location**

SUCF and UB have identified the need to accommodate the parking needs of a certain number of users within a comfortable short walk to and from the SMBS. Parking within this walking distance is referred to as “Tier 1 Parking” while the transportation and parking needs of other users would be accommodated in other ways. A review of previously completed work for the BNMC and industry standards was conducted to determine how far typical person would consider a comfortable walk from a parking space to their destination. There are several issues which typically affect the distance that people are willing to walk such as climate, degree of protection from the elements, disruptions to travel (such as intersection delay) and line of sight (is the destination visible).

We have concluded a maximum walking distance of 1200 ft should be the limit for a “Tier 1” parking experience with 800 feet being desirable. Using a typical walking speed of 4 feet/second, this equates to a 3.3 -5.0 minute walk. Therefore parking sites located outside of a 1200 foot walking distances should be considered only for
“Non-Tier I” parking. Figure 4-1 shows walking distances from the SMBS facility to various parking options on the BNMC. Ideally, visitors and some staff should be provided Tier I parking which falls within the 1200 ft walking distance. Walking distances which exceed the threshold of 1,200 ft should be considered Non-Tier I parking.

**SMBS Tier 1 Parking Demand**

Locating the SMBS facility within the BNMC will reduce the typical traffic and parking demand due to the inherent characteristics of being in an urban environment such as increased housing density, increase cost of parking and availability of other modes of transportation. Locating the SMBS on the site of an NFTA transit station that connects to the UB South Campus and to downtown Buffalo provides SMBS users a unique opportunity to commute without using a car. Also through the use of Transportation Demand Management (TDM) strategies the parking demand could be reduced further. The resulting demand for Tier 1 SMBS parking spaces is presented in Table 4.2

<table>
<thead>
<tr>
<th>Users</th>
<th>Total Population</th>
<th>Ratio(1)</th>
<th>Spaces Needed</th>
<th>Ratio(1)</th>
<th>Spaces Needed</th>
<th>Ratio(1)</th>
<th>Spaces Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Students YR 1-2</td>
<td>360</td>
<td>0.50</td>
<td>180</td>
<td>0.48</td>
<td>171</td>
<td>0.40</td>
<td>145</td>
</tr>
<tr>
<td>Medical Students YR 3-4</td>
<td>360</td>
<td>0.15</td>
<td>54</td>
<td>0.14</td>
<td>51</td>
<td>0.12</td>
<td>44</td>
</tr>
<tr>
<td>Medical Students YR 5</td>
<td>30</td>
<td>0.15</td>
<td>5</td>
<td>0.14</td>
<td>4</td>
<td>0.12</td>
<td>4</td>
</tr>
<tr>
<td>Basic Science Students</td>
<td>200</td>
<td>0.15</td>
<td>30</td>
<td>0.14</td>
<td>29</td>
<td>0.12</td>
<td>24</td>
</tr>
<tr>
<td>Dean \ Admin</td>
<td>130</td>
<td>0.60</td>
<td>78</td>
<td>0.57</td>
<td>74</td>
<td>0.48</td>
<td>63</td>
</tr>
<tr>
<td>Basic Science Depts.*</td>
<td>383</td>
<td>0.35</td>
<td>134</td>
<td>0.33</td>
<td>127</td>
<td>0.28</td>
<td>108</td>
</tr>
<tr>
<td>Building Services</td>
<td>80</td>
<td>0.35</td>
<td>28</td>
<td>0.33</td>
<td>27</td>
<td>0.28</td>
<td>23</td>
</tr>
<tr>
<td>Library Staff</td>
<td>8</td>
<td>0.60</td>
<td>5</td>
<td>0.57</td>
<td>5</td>
<td>0.48</td>
<td>4</td>
</tr>
<tr>
<td>Simulation Center</td>
<td>5</td>
<td>0.60</td>
<td>3</td>
<td>0.57</td>
<td>3</td>
<td>0.48</td>
<td>2</td>
</tr>
<tr>
<td>LAF Staff</td>
<td>15</td>
<td>0.60</td>
<td>9</td>
<td>0.57</td>
<td>9</td>
<td>0.48</td>
<td>7</td>
</tr>
<tr>
<td>Clinical (Admin\Research)</td>
<td>281</td>
<td>0.35</td>
<td>98</td>
<td>0.33</td>
<td>93</td>
<td>0.30</td>
<td>84</td>
</tr>
<tr>
<td><strong>Total Population</strong></td>
<td><strong>1852</strong></td>
<td><strong>624</strong></td>
<td><strong>593</strong></td>
<td><strong>534</strong></td>
<td><strong>534</strong></td>
<td><strong>534</strong></td>
<td><strong>534</strong></td>
</tr>
</tbody>
</table>

* Includes Faculty, Staff, Post Docs

Notes:

(1) Spaces Per Person
(2) Assumed 5% of total

Depending on the success of implementing transportation/parking demand reduction (TDM) strategies the forecasted parking demand downtown ranges from 655 (No new TDM) spaces to 534 (Aggressive TDM) spaces. For planning purposes using 655 Tier 1 spaces will serve the anticipated Phase 1 parking demand for the SMBS. If sufficient TDM strategies can be implemented the Tier 1 parking demand could be reduced by up to 121 spaces.

**Other (Non Tier 1) Parking Demand**

The total SMBS parking demand presented in Table 4.1 is 1103 spaces. If 655 of these spaces are required to be Tier 1, located within 1,200 feet of the SMBS, than the remaining 448 spaces can be provided in other areas.
Confidence in Demand Forecasting Methodology

The initial parking ratios used in this forecast were derived from previous work conducted at the BNMC by Walker Parking Consultants and BFJ Planning Consultants which complimented each other. These ratios were further refined and adjusted by UB and SUCF staff to reflect the current and anticipated demographics and commuting patterns of the SMBS population. The following comparisons are made between the resulting forecasts and other sources of calculating parking demand:

<table>
<thead>
<tr>
<th>Method for Comparison</th>
<th>Check</th>
<th>This SMBS Forecast</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>BFJ Overall Downtown Parking Ratio</td>
<td>0.40 – 0.21</td>
<td>0.35 - 0.29</td>
<td>within the range</td>
</tr>
<tr>
<td>Walker @ 1.20 Spaces per 1000sf</td>
<td>624</td>
<td>655 - 534</td>
<td>within the range</td>
</tr>
<tr>
<td>ITE* @ 1.20 Spaces per 1000sf</td>
<td>624</td>
<td>655 - 534</td>
<td>within the range</td>
</tr>
<tr>
<td>ITE* spaces per population (Urban)</td>
<td>0.14 - 0.31</td>
<td>0.29 – 0.35</td>
<td>at high end of range</td>
</tr>
<tr>
<td>ITE* spaces per population (Suburban)</td>
<td>0.22 - 0.55</td>
<td>0.29 – 0.35</td>
<td>within the range</td>
</tr>
</tbody>
</table>

* Institute of Transportation Engineers “Parking Generation 4th Edition”

A review of these “Checks” indicated the forecasts are generally consistent with the previous work and other sources.

Other Users Parking Demand at the BNMC

There has been significant planning activity and construction focused on the north end of the BNMC campus in recent years including the following list of facilities which are shown on Figure 4-2.

- Gates Vascular Institute
- Skilled Nursing Facility
- Medical Office Building
- Multi-Modal Transportation Structure
- Children’s Hospital of Buffalo

As these new facilities become operational, the existing parking supply available to new facilities will be limited. A Traffic Impact Study recently completed for the Children’s Hospital of Buffalo (CHOB) prepared by C&S Engineers, Inc. concluded that there would be a parking deficit of approximately 660 spaces within the BMNC with the completion of the facilities listed above. The study indicated that Kaleida Health would address the parking deficit related to cumulative development and the CHOB by providing offsite parking at the Gates Circle Ramp and providing shuttle service between the ramp and the BNMC.

Tier 1 Parking Demand for all BNMC Partners

In response to this identified parking supply deficit the other BNMC partners have conducted an independent review of their parking needs. Based on information provided, the total additional parking demand for the BNMC (including the SMBS) is listed in Table 4.4.
## Table 4.4

<table>
<thead>
<tr>
<th></th>
<th>SMBS</th>
<th>UBMD</th>
<th>Kaleida</th>
<th>RPCI</th>
<th>Ciminelli</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMBS (Employees, Students &amp; Visitors)</td>
<td>655</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>655</td>
</tr>
<tr>
<td>WCHOB (Employees*)</td>
<td>-</td>
<td>-</td>
<td>755</td>
<td>-</td>
<td>-</td>
<td>755</td>
</tr>
<tr>
<td>* assumed overlap of 139 people, based on clinical lease data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kaleida (Residents)</td>
<td>-</td>
<td>-</td>
<td>75</td>
<td>-</td>
<td>-</td>
<td>75</td>
</tr>
<tr>
<td>MOB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UBMD**</td>
<td>-</td>
<td>180</td>
<td>-</td>
<td>-</td>
<td>60</td>
<td>240</td>
</tr>
<tr>
<td>Kaleida Health (MOB Patients)</td>
<td>-</td>
<td>-</td>
<td>127</td>
<td>-</td>
<td>85</td>
<td>212</td>
</tr>
<tr>
<td>Kaleida Health (WCHOB Patients)</td>
<td>-</td>
<td>-</td>
<td>193</td>
<td>-</td>
<td>-</td>
<td>193</td>
</tr>
<tr>
<td>Retail/Office</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>148</td>
<td>148</td>
</tr>
<tr>
<td>Hotel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>92</td>
<td>92</td>
</tr>
<tr>
<td>MOB Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>385</td>
<td>885</td>
</tr>
<tr>
<td>** assumed overlap between UBMD &amp; SMBS counts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total modified to 4 people / lk SF of rented space - to be confirmed by UBMD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contingent/Future Demand***</td>
<td>-</td>
<td>-</td>
<td>75</td>
<td>350</td>
<td>-</td>
<td>425</td>
</tr>
<tr>
<td>Total Demand</td>
<td>655</td>
<td>180</td>
<td>1,225</td>
<td>350</td>
<td>385</td>
<td>2,795</td>
</tr>
</tbody>
</table>

**Kaleida contingency is to account for displaced employees should on-street parking regulations change.**

**RPCI contingency is for the identified projected parking need increase over the next 5 years (150) and displacement of current on-street parkers (200).**

This summary indicates there is a total parking demand at the BNMC of 2,795 spaces which includes 655 of the SMBS Tier I parking demand.
5. PARKING SUPPLY STRATEGIES

SMBS Tier 1 Parking

As indicated on Figure 4-1, the parking provided at the EGG ramp and the MIGO ramp would serve as ideal locations for Tier 1 parking. The close proximity to the proposed SMBS and the protection from the elements that the parking ramps would provide is suitable for Tier I parking. UB and SUCF have indicated that 520 spaces in the MiGo Ramp are available to the SMBS and can be allocated to partially address the Tier 1 demand of 655 spaces. The remaining 135 space demand could be accommodated through a partnership in the construction of a new parking Ramp.

Other (Non Tier 1) SMBS Parking

Of the total Phase I SMBS parking demand of 1103 spaces, 448 of these can be located outside of the 1200 foot, 5 minute walk boundary. The following options are available for accommodating this demand:

Surface lot at 589 Ellicott

The surface parking lot at 589 Ellicott which is currently owned by the BNMC should be considered a suitable location for Tier II parking for the SMBS. The walking distance to the 589 Ellicott parking lots is just outside the 1,200 ft walking distance for a Tier 1 parking supply threshold combined with the fact that it’s an exposed open air parking lot which provides no cover or protection from the elements gives the impression of a Tier II parking facility. A site visit during June 2012 indicated some availability of spaces but the actual available supply needs to be confirmed.

Parking at UB South Campus

The presence of significant parking adjacent to the NFTA station on the UB South campus makes it a suitable option for meeting some of the parking demand for the SMBS. Between the Abbott and NFTA University Station lots there are a total of 465 spaces with as many as 134 currently available. The scheduled 12 minute travel time between the South Campus and Allen Street NFTA Stations makes this an attractive and economical option to providing additional parking at the BNMC.

Allscripts Parking Ramp

The Allscripts block was previously identified as a potential suitable location for additional parking which is bounded by High Street (north), Maple Street (east), Carlton Street (south) and Michigan Avenue (west). The block contains sparse development and a few surface parking areas which makes it an ideal location for additional surface parking or a ramp structure. The Allscripts location is outside of the Tier I threshold of 1,200 feet for the SMBS, MOB and CHOB however, could serve as a suitable Tier II location or Tier I location for North End development which is more centrally located on the BNMC. A conceptual ramp structure was generated which provided 1,050 spaces on three levels of parking and included a ground floor retail component along High Street. This site presents an ideal location to be evaluated further in the future by the member institutions as additional development in the North End of the BNMC occurs.

Best Street Parking Ramp

The Best Street site was also previously identified as a potential suitable location for additional parking which is bounded by Dodge Street (north), existing development (east), Best Street (south) and Main Street (west). The block contains some development, a few surface parking areas and the Summer/Best Street Metro Station which makes it an ideal location for additional surface parking or a ramp structure. The Best Street location is also outside of the Tier I threshold of 1,200 feet for the SMBS, MOB and CHOB however, could serve as a suitable Tier II location given the easy access to the Metro light rail line. A conceptual ramp structure was generated which provided 1,110 spaces on six levels of parking and included a ground floor retail component along Main Street. This site presents an ideal location to be evaluated further in the future by the member institutions as additional development in the North End of the BNMC occurs.
6. TRAFFIC IMPACT REVIEW

A complementary task of this parking study was to evaluate the previous attempts at quantifying the traffic impacts of the ongoing and planned development at the BNMC. There have been two previous efforts at studying the traffic impacts. The following is a review and summary of these studies.

6.1. CHOB Traffic Impact Study (January 2012) By C&S Engineers

The TIS builds upon a previously completed Traffic Impact Study for the North End Development performed by C&S Engineers. Specifically the relocation of the Children’s Hospital of Buffalo (CHOB) to the BNMC was added to other North End development which was previously analyzed and approved. C&S Engineers originally performed a TIS in 2008 which analyzed potential transportation and parking impacts of several development projects in the North End of the BNMC. The following developments were considered in the preparation of the CHOB Traffic Study:

- The Children’s Hospital of Buffalo (CHOB)
- Gates Vascular Institute (GVI)
- Skilled Nursing Facility (SNF)
- Medical Office Building (MOB)
- Michigan-Goodrich Parking Ramp (MIGO)
- Relocations within the BNMC
- Closing of Goodrich Street

Key Recommendations

1. Support the BNMC in the development of an aggressive Transportation Demand Management Program to achieve the expected 5% reduction in vehicle trips by 2013 and the ultimate 15% reduction in the long term; and,

2. Relocate up to 660 Kaleida employees to the Gates Circle Ramp due to parking shortages as a result of the development of the CHOB.

TIS Concerns

1. The approach to the CHOB TIS packages all the North End development into the build condition. The North End development was already analyzed and approved, so the additional traffic and recommended mitigation should have been considered in the no-build analysis and then look at potential impacts of relocating the CHOB to the BNMC in the build analysis.

   Performing the TIS this way makes it difficult to determine any project specific impacts, because you are presented with the impacts of the cumulative development. The TIS concludes there is no additional impact above and beyond what was identified in the North End Development TIS.

2. The trip generation for the CHOB indicates approximately 200 AM and PM peak hour trips above what was generated for the North End development. The 200 additional peak hour trips are removed from the analysis based on the conclusion of the study which recommends that Kaleida transport 660 employees to the Gates Circle Ramp (200 during peak hours) which will not be traveling to the project area by car.

   This makes the analysis portion essentially the same as what was presented in the North End development TIS, however they do make some slight changes to previously performed work and assume an additional 5% reduction to all North End development due to TDM policies in place. Comparing the 2008 and 2012 project trips, you actually have less traffic even though there is more development. The project trip figures don’t necessarily match the trip generation performed.

3. The TIS does not seem to take parking space allocation into account. The study simple looks at overall
BNMC supply and demand and then determines there is a 660 space deficit. The study assumes all of the 2,025 space supply in the MIGO ramp is utilized even though certain facilities may not have an allocation there such as the CHOB, MOB and SNF. For instance, the study indicates the MOB is expected to have a parking demand of 1,437 vehicles, provide 360 spaces and the remaining vehicles are sent to MIGO. The MOB does not have an allotment in the MIGO. Evaluating the traffic impacts of a full parking is an important exercise however, assuming that parking needs are satisfied even though a facility may not have an allotment will not provide a clear picture of parking demand.

Additionally, the study points out that the functional capacity of the parking system is considered optimal when it’s 85% occupied. The North End’s 350 space surplus puts the daily occupancy at about 85% which is optimal then the study uses this surplus to reduce demand. This basically assumes that all spaces are going to be occupied and there is no functional capacity built in.

6.2. BNMC Comprehensive Transportation Study (May 2010) By HSH/Walker

This study takes a comprehensive look at future development within the BNMC. The study looks at short term (2009-2014) and long term (2014-2024) development scenario impacts to transportation, parking and transit within the BNMC. The study proposes solutions and implementation strategies to mitigate impacts caused by development. This is a comprehensive study which builds upon and unifies development strategies and goals outlined in individual member institutions comprehensive plans.

Development Considered

North End Projects
- Gates Vascular Institute (GVI)
- Skilled Nursing Facility (SNF)
- Medical Office Building (MOB)
- Relocations within the BNMC
- Closing of Goodrich Street

Other Projects
- Clinical Expansion (RPCI)
- Center for Genetics (RPCI)
- Educational Opportunity Center (UB)
- Gateway [M. Wile] (UB)

Key Recommendations

Short Term (2009-2014)
1. Construct a 1,800 space garage at corner of Michigan Ave and High St and a 300 space garage in association with the proposed new Medical Office Building.
2. Work with NFTA to adjust its bus schedules and stops to better serve BNMC.
3. Launch a hierarchy of parking facilities that balances proximity and pricing to maximize use of the most convenient facilities for patients, visitors and clinical staff.
4. Designate BNMC as a Transportation Management Association for the campus.
5. Begin to develop employee demand management programs that encourage use of alternative modes – specifically, the combination of parking pricing mechanisms along with transit and carpool incentives.
6. Signal timing improvements and interconnection along Michigan Ave and Goodell St corridors.
7. Signal and signing changes along the Ellicott St corridor and at N Oak St/E Tupper St.
8. Modest additions of lanes at Michigan Av/Goodrich St and Michigan Ave/High St.

**Long Term (2014-2024)**

1. A fully developed tiered parking system with proprietary on-site parking combined with on-campus and remote shared parking, priced according to distance from BNMC institutions.
2. Construction of 2,700 to 3,600 additional parking spaces to serve long-term UB buildout in a combination of on-site, near-site and remote facilities.
3. An aggressive program of employee and student transit pass subsidies.
4. An ongoing partnership with NFTA.
5. Prohibition of on-campus parking for students.
6. Full interconnection and coordination of signals along Michigan Ave, Goodell St and Ellicott St.
7. New signals at Elm St/Goodell St, Ellicott St/Carlton St and Ellicott St/Virginia St.
8. Addition of turning lanes at Michigan Ave/Goodrich St, Ellicott St/E Tupper St and Ellicott St/High St.

**6.3. Summary of Traffic Impacts and Additional Studies Required**

The Traffic Impact Studies reviewed seem reasonable, generally consistent and build upon work previously performed with respect to traffic impacts and parking needs of the BNMC. The studies have identified significant developments recently completed or under development in the North End of the BNMC. However, the most recently completed CHOB TIS does not consider the SMBS with regard to traffic or parking impacts.

During the SMBS project development process traffic impacts associated with identified parking areas should be evaluated based on the previous work completed which accounts for other planned development on the BNMC.
7. OTHER CONSIDERATIONS

Transportation Demand Management Strategies

Parking Ratios for No New TDM are reduced over the total Phase I Parking Demand due to the inherent traffic reducing characteristics of being in an urban environment, such as increased density of housing in proximity to the campus, increased availability of transit service and increased cost of parking.

Moderate TDM Strategies include: 1) Provide Bike Centers and Bike Storage 2) Improved NFTA Bus Service 3) Ride share boards on Campus and my UB website 4) Preferential parking for Carpools 5) Telecommuting 6) Car Share Program (zip car) 7) Guaranteed Ride Home.

Additional strategies to be included in the Aggressive TDM Scenario include: 1) Monetary Incentives for Faculty and Staff 2) Parking Fees unbundled from student transportation fee 3) Tiered parking fees based on proximity to SMBS 4) Free Bike Program 5) Subsidized NFTA pass 6) Improved BRT service.

Planning for Phase II Parking needs

Current planning for Phase II of the SMBS increases the population by 122 people between the years 2016 and 2023. As future planning occurs and the expansion into Phase II becomes clear it seems that the small increase in population could be potentially be absorbed into the existing supply by incorporating the TDM strategies noted above. If the Phase II SMBS development is more significant than what is currently planned then the additional parking demands will require further evaluation and consideration.

Traffic Impacts

Once the Tier I and Non Tier I parking locations have been officially determined, the impacts of the traffic to these parking areas can be evaluated. The study area for the traffic impacts should be localized to the intersections adjacent to the identified parking locations and should build upon the previously completed work which has been prepared for the BNMC and member institutions. Typical guidelines for determining the scope of an appropriate traffic study are available from the Institute of Transportation Engineers.
8. FINDINGS AND RECOMMENDATIONS

The following are the key findings of this study of the parking need for the planned University of Buffalo SMBS facility at the Buffalo Niagara Medical Campus:

1. Locating the SMBS within the BNMC will create the demand for additional parking. Although there is a substantial supply of off street parking in the immediate BNMC area, previous studies have shown that there will be a parking deficit within the BNMC upon completion of all the current plans for additional development by BNMC partners. This indicates the SMBS development plans must provide for sufficient parking on its own and will not be able to rely on any unused parking surplus within the BNMC.

2. The SMBS is forecasted to serve a population of 1,852 people upon completion of the Phase I plan, expected to be completed in 2016. Phase II, expected to be completed by 2023, will add an additional population of 122 people bringing the total population to 1,974.

3. It has been determined that planning for the SMBS parking demand will focus on the Phase I needs since the Phase I needs are more imminent and the plans for Phase II are not as well defined at this time.

4. The total parking demand for the Phase I of the SMBS is 1,103 spaces. Of these spaces it is recommended 655 spaces be located within a 5 minute walk (800 FT) of the SMBS. This parking has been defined as “Tier I”.

5. This “Tier 1” demand would best be met through using the existing supply available to the SMBS at the MiGo Ramp (520 spaces) and UB/SUCF partnering with others within the BNMC in the construction of a new/expanded parking structure located to provide the remaining 135 Tier 1 spaces.

6. The remaining Phase I parking demand of 448 spaces can be met through a combination of using the available supply at existing parking outside the 5 minute walking boundary, directing some students to use the available parking and transit service connection between the UB South Campus and the SMBS, and the creation of new parking supply at either the Best or Allscripts locations.

7. The additional parking demand that will be created by the Phase II SMBS program, currently scheduled to add additional 122 people by 2023, could be accommodated by the successfully implementing Transportation Demand Management strategies without adding any additional parking supply.

8. The traffic impact of the SMBS can be quantified once the final parking strategy is determined. The previous traffic studies prepared for the Children Hospital of Buffalo (2012) and the BNMC (2010) contain extensive traffic data and forecasts that any study of the SMBS traffic impacts can build on.