

# U.S. Food and Drug Administration Headquarters Consolidation Transportation Management Plan Update

Prepared for:



The U.S. General Services Administration  
National Capital Region

In cooperation with:

The U.S. Food and Drug Administration

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## **EXECUTIVE SUMMARY**

The 2006 U.S. Food and Drug Administration (FDA) Transportation Management Plan (TMP) is being updated due to a proposed increase in the FDA population at the FDA Campus. The increase in the FDA population is a result of recent legislation passed by Congress, which has expanded the mandates of the FDA.

This report represents an update to the 2006 TMP, which was prepared by the U.S. General Services Administration (GSA) and FDA in June 2006. In the 2006 TMP, 7,719 employees were slated to be relocated to the FDA Campus. The recent congressional legislation will require an additional 1,170 employees, which bring the total number of employees on-site to 8,889. As a result of this legislation, the master plan for the site needed to be updated to accommodate the increase in employees. As part of this update, the TMP was also updated to identify strategies to minimize vehicular travel to the site.

A TMP is required as part of a federal agency's planning submission for undertaking any project that will increase the employment level on a worksite to 100 or more employees. A TMP is an employer's active program to foster more efficient employee commuting patterns. The plan includes specific strategies to encourage change in employee travel mode, trip timing, frequency, and length and travel routes so as to reduce traffic congestion and improve air quality. A TMP also offers the benefit of reduced demand for parking spaces.

This updated TMP evaluates the 2006 TMP strategies and their effectiveness by analyzing the commuting pattern of existing FDA employees who have already relocated to the FDA Campus. Overall, FDA is exceeding the mode split goals set in the 2006 TMP. The agency is meeting/exceeding the goals set for transit, telecommuting, and walking/biking. However, as more employees relocate to the FDA Campus, employee participation in carpooling and vanpooling programs may become more critical as FDA strives to meet the higher mode split goals. Opportunities remain to increase the number of employees participating in the carpooling/vanpooling program to meet higher mode split goals.

Based on a survey of relocated employees and analysis of the results, this plan will review and modify the previous strategies to provide the greatest reduction in single occupancy vehicles and minimize the need for on-site parking.

## **EXISTING CONDITION**

As of May 2008, approximately 2,080 employees were located on site at the FDA Campus. Of these employees, 190 were contract service employees (working in the cafeteria, mailroom, security, etc.), and 1,890 were FDA employees and FDA contractor employees. The 1,890 employees were asked to participate in an employee survey from November through December 2007 to gain an understanding of their commuting patterns. Of the 1,890 employees, 523 or approximately 23 percent completed the survey.

Based on the zip codes of employees residences 1,154 or 61 percent of the employees live in Montgomery County and the remaining employees are evenly distributed among Washington, D.C. and

other counties in Maryland and Virginia. Survey results indicate that approximately 11 percent of these employees moved their residence closer to the FDA Campus due to the change in job location and approximately 6 percent are planning to move their residence closer to the FDA Campus.

Of the 523 employees who responded to the survey, approximately 80 percent drive alone to work and 20 percent use other modes of transportation. The average vehicle occupancy (AVO) of these employees is 1.27 employees per vehicle. This AVO is greater than the 1.17 which was reported in 2004 when the last survey was conducted. The results indicate that the TMP strategies that FDA is implementing are effective.

### **PROPOSED CONDITION**

A second survey was completed for the 5,345 FDA employees who are scheduled to relocate to the FDA Campus. Of these employees 1,083 completed the survey. The zip codes of these employees residences indicate that 61 percent live in Montgomery County. Approximately 4 percent of the employees who participated in the survey are planning to move their residence closer to the FDA Campus and approximately 10 percent are somewhat likely to move their residence closer to the FDA Campus.

Approximately 80 percent of the employees who responded to the survey drive alone to work and 20 percent use the other modes of transportation. Employees who have already relocated to FDA Campus are carpooling/vanpooling more than other off-site employees, but the off-site employees are using more bus and Metrorail than employees located at the FDA Campus. Thus, even though the number of employees who drive alone to work has remained the same for FDA employees located at the FDA Campus and the FDA employees who work off-site, there is a shift within the alternative modes of transportation that each group uses. It is expected that as employees relocate to the FDA Campus there will be more carpool and vanpool usage, which will help reduce the percentage of employees who drive alone.

The employees who are slated to relocate to the FDA Campus have an AVO of 1.28 which is greater than the 2004 AVO of 1.17.

### **EFFECTIVENESS OF STRATEGIES IMPLEMENTED**

In the 2006 TMP, various strategies were included to encourage FDA employees to use other modes of transportation to reduce the drive alone percentage. Goals were set, using the parking ratio for each year from 2007 to build-out of the FDA Campus. Goals were set using the parking ratio. Due to the ongoing construction activity on site it is harder to calculate AVO because it is difficult to separate construction traffic from employee traffic.

The following strategies helped meet the parking ratio goal of 1.29 which was set as the 2007 goal in the 2006 TMP.

- Hiring an Employee Transportation Coordinator (ETC)
- Carpool/Van Pool Incentives

- Transit Incentives
- Telecommuting Program
- Bicycling/walking to work Incentives

Overall, the FDA is meeting its mode split goals as set forth in the 2006 TMP, including the goal of a parking ratio of 1.29. At the time of the 2007 employee survey, the parking ratio for the FDA Campus is 1.31.

### **PROPOSED TRANSPORTATION DEMAND MANAGEMENT STRATEGIES**

The previous TMP outlined strategies in order to achieve an aggressive parking ratio goal of 1.5 at full build out of the FDA Campus. At present, the existing parking ratio at the FDA Campus is 1.31 which has exceeded the goal set forth in the 2006 TMP. The telecommuting program has played a large role in surpassing the parking ratio for 2007 even though the carpool/vanpool participation was less than expected. In order to continue to meet the future goals, the participation in telecommuting will need to continue, and carpool/vanpool programs will need to be expanded.

In order to increase the parking ratio from the current 1.31 to 1.5 at full build-out, FDA will continue to make significant aggressive efforts to encourage employees to use the ride share program, on-site shuttle service, and computer matching of employees looking for other carpoolers/vanpoolers in their home area. In addition, FDA will use incentives, such as transit subsidies, guaranteed ride home program, and preferred parking for carpools/vanpools to help meet this goal. The following Transportation Demand Management (TDM) measures are expected to have an effect on increasing the parking ratio and thus decreasing the single vehicle occupancy numbers:

- Employee Transportation Coordinator
- Carpool/Vanpool Incentives
- Transit Incentives
- Telecommuting Program
- Bicycling/Walk-to-work Incentives

### **VISITOR PARKING**

The *2006 White Oak Master Plan Update* calls for 500 visitor parking spaces at the build-out of the FDA Campus by 2012. Based on the recent visitor survey and several key factors, 500 parking spaces will be inadequate to satisfy future visitor parking demand. Thus, FDA is requesting an additional 500 visitor parking spaces, bringing the total number of visitor parking spaces to 1,000. These spaces will be located at the various parking facilities on site and will be specifically designated for visitors. These locations will be monitored by guards and/or gates to insure security is maintained and spaces are used by visitors.

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## List of Acronyms

|                |  |
|----------------|--|
| <b>AM</b>      | Ante Meridiem  |
| <b>AVO</b>     | Average Vehicle Occupancy                              |
| <b>CBER</b>    | Center for Biologics Evaluation and Research           |
| <b>CDER</b>    | Center for Drug Evaluation and Research                |
| <b>CDRH</b>    | Center for Devices and Radiological Health             |
| <b>CLV</b>     | Critical Lane Volume                                   |
| <b>CVM</b>     | Center for Veterinary Medicine                         |
| <b>DC</b>      | District of Columbia                                   |
| <b>DOT</b>     | Department of Transportation                           |
| <b>EIS</b>     | Environmental Impact Statement                         |
| <b>FHWA</b>    | Federal Highway Administration                         |
| <b>FRC</b>     | Federal Research Center                                |
| <b>GSA</b>     | U.S. General Services Administration                   |
| <b>ICC</b>     | Intercounty Connector                                  |
| <b>LOS</b>     | Level of Service                                       |
| <b>MARC</b>    | Maryland Rail Commuter Service                         |
| <b>M-NCPPC</b> | Maryland National Capitol Park and Planning Commission |
| <b>MOA</b>     | Memorandum of Agreement                                |
| <b>mph</b>     | miles per hour   |
| <b>MWCOG</b>   | Metropolitan Washington Council of Governments         |
| <b>NCR</b>     | National Capital Region                                |
| <b>OC</b>      | Office of the Commissioner                             |
| <b>SHA</b>     | State Highway Administration                           |
| <b>TMP</b>     | Transportation Management Plan                         |
| <b>WMATA</b>   | Washington Metropolitan Area Transit Authority         |

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## 1. INTRODUCTION

The General Services Administration (GSA) is constructing the U.S. Food and Drug Administration (FDA) Headquarters at the Federal Research Center at White Oak (FRC) in Silver Spring, Maryland. Various studies have been previously performed that evaluated the impacts of this consolidation on the surrounding roadway systems and general resources in the area (see Figure 1). Studies completed to date include:

- Final Environmental Impact Statement, Greenhorne & O'Mara, April 1997
- Parking Demand Report, Gorove-Slade, April, 1997
- White Oak Transportation Study, Gorove-Slade, May 1997
- Review of Transportation Improvements along New Hampshire Avenue, Gorove-Slade, March 1998
- FDA Traffic Access Plan, Gorove-Slade, April 1998
- Transportation Improvement Study, BMI, March 1999
- Transportation Management Plan (TMP) for the FDA Consolidation, Greenhorne & O'Mara, April 2002
- Findings of No Significant Impact Final Section 4(f) Evaluation – MD 650 from Powder Mill Road to North of US 29, Federal Highway Administration, April 2003

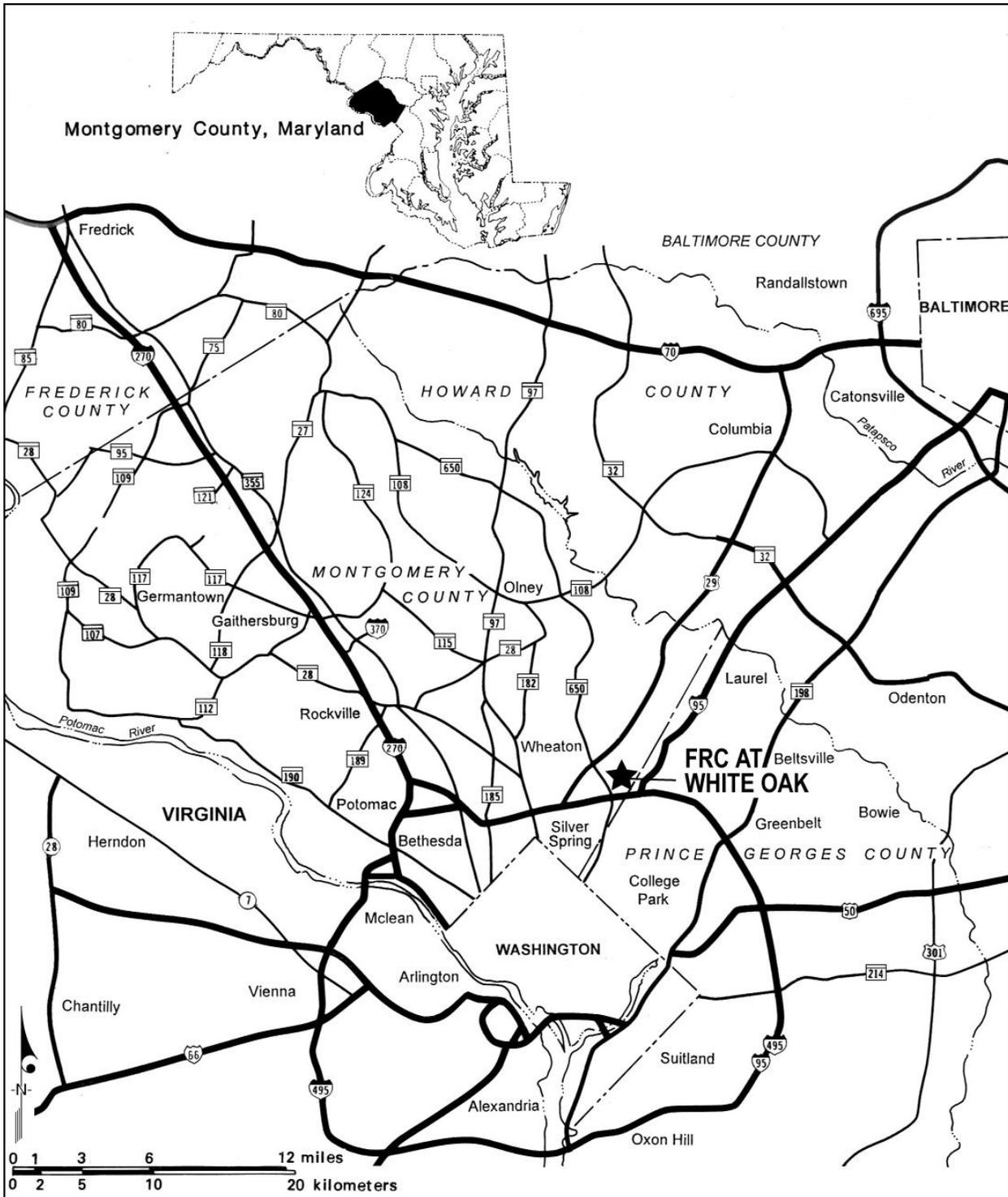
The above reports were completed to determine the potential transportation impacts of consolidating the FDA Headquarters at the FRC. These reports also proposed mitigation for these impacts based upon 6,000 employees and providing 4,000 parking spaces. In July 2002, congressional legislation was passed that expanded FDA's mandate to support the Prescription Drug User Fee Amendments (PDUFA) and the Medical Device User Fee and Modernization Act (MDUFMA). Based upon these mandates, the number of employees anticipated to occupy the FDA Campus was increased to 7,719. Due to this increase in the number of employees, the 2002 Master Plan was revised and a Supplemental Environmental Impact Statement (SEIS) (G&O, 2005) was completed which analyzed the impact of the additional employees that would relocate to White Oak and the addition of a new eastern access road into the FDA Campus. The 2002 TMP was updated by Greenhorne & O'Mara, Inc. in June 2006 to evaluate the changes that had occurred since the initial TMP was released.

The purpose of the 2006 TMP was to update the previous TMP to reflect the change in population at the FDA Campus and to have a transportation management plan that includes viable strategies to discourage the use of single occupant vehicle trips to the site. The revised TMP was submitted to the National Capital Planning Commission (NCPC) as part of the *2006 Master Plan Update - FDA Consolidation*. The 2006 TMP proposed was approved for a parking ratio of 1:1.5 consistent with NCPC's Transportation Element of *The Comprehensive Plan for the National Capital*. Specifically, the FDA Headquarters Consolidation at White Oak falls into the category of "Suburban areas beyond 2,000 feet of Metrorail." For this category "a phased approach linked to planned improvements" is recommended by NCPC for the implementation of a parking ratio of 1:1.5 to 1:2 (NCPC, 2004).

Since the approval of the *2006 FDA Master Plan Update* and TMP, recent legislation has again expanded the mandates of FDA programs necessitating a projected increase of FDA employees on the

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FDA Campus by 1,170 bringing the anticipated total number of employees to 8,889. These additional employees are currently being hired and are housed in leased facilities. As of May, 2008, approximately 1,890 FDA employees had relocated to the FDA Campus.



**Figure 1. White Oak Site Location Map**

## 1.1 Purpose of Study

As defined in the Federal Transportation Management Program Handbook, “a Transportation Management Plan (TMP) is an agency’s active program to promote more efficient employee commuting patterns. It involves specific strategies to encourage changes in employee travel modes, trip timing, frequency and length, and travel routes so as to reduce traffic congestion and improve air quality” (GSA, 1999). The main objective of the TMP is to develop and implement strategies which will provide the greatest reduction in single occupancy vehicles, thereby minimizing the need for on-site parking.

GSA and FDA are revising the *2006 Master Plan Update – FDA Consolidation*. As part of the overall revisions to the FDA Master Plan, this report evaluates the 2006 TMP based on changes which have occurred since the initial report and presents a TMP which includes viable strategies to discourage the use of single occupant vehicles. Commuting patterns of employees who have already moved to the FDA Campus is discussed and the strategies which are in place are examined.

This TMP is a living document and will be updated when modifications to the FDA Master Plan are made to evaluate which strategies have worked and which strategies need to be modified. This version is an update of the 2006 TMP. Commuting patterns of FDA employees at the site are being used to evaluate the effectiveness of strategies in the 2006 TMP. This TMP also seeks to modify existing strategies and to develop new strategies to meet the goals and objectives as FDA employees continue to relocate to the FDA Campus and as the additional 1,170 employees begin working at the FDA Campus in the future.

## 1.2 Data Collected

The basis for this report is an employee survey which was conducted via the internet in November 2007. The employee survey was conducted for both the employees who have already moved to the FDA Campus and those employees slated to move. The survey was active from November 22, 2007 through December 14, 2007. In addition, the following information was collected for this study or provided by the FDA:

- Zip code of employees by work building
- Shuttle bus schedules and ridership
- Visitor counts
- Traffic counts
- Parking lot counts
- Employee numbers
- Strategies implemented

### 1.3 TMP Goals and Objectives

The 2006 TMP outlined the following goals for the FDA Headquarters at White Oak:

- Identify Transportation Demand Management (TDM) strategies that will allow the employee-parking ratio to realistically approach the NCPD goal of 1 parking space for every 1.5 employees at build-out.
- Identify methods that will increase employees' awareness of the different options available to them for their commute and encourage them to try new travel options.
- Minimize the impact of the FDA development on the surrounding roadway network and the local communities.

Based on these goals, the 2006 TMP had the following objectives:

- Increase the existing Average Vehicle Occupancy (AVO) of 1.17 to 1.5 by the end of complete occupancy in year 2011 by meeting the following targets:
  - Increase AVO to 1.2 by year 2005,
  - Increase AVO to 1.3 by the end of 2007,
  - Increase AVO to 1.35 by the end of 2008,
  - Increase AVO to 1.4 by the end of 2009, and
  - Increase AVO to 1.5 by the end of 2011.

Due to the fact that the FDA Campus will be populated in several phases, the AVO can realistically be increased in gradual steps. As more FDA employees move to the FDA Campus, the higher the chances that transit services can be increased and more opportunities for carpool/vanpool partners will be available.

- Increase the percent of transit usage to 10 percent by full occupancy in 2011. It should be noted that the percent of transit use by the year 2011 has been estimated to be 10 percent due to several factors such as the proximity of Metrorail stations, travel time, and the residential distribution of the employees.
- Increase employees using carpools from an existing 7.2 percent to 24 percent by the end of 2011. The biggest jumps in carpools should be planned to coincide with the largest number of employee relocations which are expected to occur between 2008 and 2011. Thus, the goal is to increase the number of employees participating in carpools to 10 percent by the end of 2005, to 16 percent by the end of 2008, and to 24 percent by the end of 2011. As of May 2008, the FDA employees are located at various sites in and around the Metropolitan DC area. As they are consolidated in one location, the opportunity to carpool and vanpool is expected to increase.

- Increase employee participation in vanpools from approximately 2 percent to 3 percent by the end of 2005 and to 5 percent by the end of 2011.
- Reduce the number of employees who drive alone to 56 percent by the build out of the site.

This TMP update still strives to meet the goals and objectives set in the 2006 TMP. The following sections evaluate the goals set in the 2006 TMP and outline the strategies needed to meet or continue to meet these goals.

#### 1.4 Measurement

The following are used to measure the effectiveness of the TDM strategies identified:

- Average Vehicle Occupancy (AVO)
- Mode Split
- Vehicle Trip Reduction (VT)

##### Average Vehicle Occupancy (AVO)

The AVO represents the ratio of employees to vehicles. The AVO ratio is calculated as follows:

$$\text{AVO} = \text{No. of employees reporting to the worksite} / \text{No. of vehicles at worksite}$$

As indicated in the formula above, the AVO is increased by decreasing the number of vehicles traveling to the work site. Some of the vehicles, such as vanpools with seating for nine or more, buses, and bicycles, count as zero vehicles (i.e. are not used to calculate the AVO). Employees who work on compressed schedules also count as zero vehicles on the days that they do not report to the worksite. Telecommuters are included in the AVO calculation as employees reporting to the FDA Campus but with zero vehicles.

Vehicles left at park and ride lots or transit terminals two or more miles away from the work site also count as zero. Carpool vehicles are counted as a fraction of a vehicle depending on the number of carpoolers per vehicle.

##### Mode Split

Mode split is the percentage of people using each mode of travel (e.g. bus, carpool, bicycle). This data was collected through the employee survey.

##### Vehicle Trip (VT) Reduction

Vehicle Trips (VT) measure the number of trips into/out of the site and can be measured as a daily total or peak hour total. As the TMP strategies are implemented, assessment of the vehicle trips entering and exiting the FDA Campus can help determine the impact of the strategies. Furthermore, this method can be a fairly quick, un-intrusive, and cost effective measure since there will only be three

access points to the FDA Campus. Tubes can be laid at the entrance points to determine how many vehicles are entering and exiting the site and this can be repeated on a regular basis. By knowing the number of employees on site, and the number of vehicles entering and exiting, the average vehicle occupancies can be determined. However, as the FDA Campus is not fully occupied and there is ongoing construction, VT could not be used as an evaluation method for this study. The presence of construction vehicles and workers on site would not allow for an accurate count.

## 2. EMPLOYEE SURVEY

An employee survey was conducted via the internet in November and December 2007 to understand the commuting patterns of employees and to determine if the TMP goals were being met. The employee survey was conducted for both the employees who have already relocated<sup>1</sup> to the FDA Campus and those employees slated to relocate. The survey was active from November 22, 2007 through December 14, 2007 and asked employees the likelihood of using various modes of transportation to travel to the FDA Campus. A copy of the survey is included in Appendix A.

Of the approximately 7,235<sup>2</sup> employees asked to respond to the survey, approximately 22 percent, or 1,605 employees, completed the survey. Of the approximately 1,890 employees at the FDA Campus at the time of the survey, 523 or approximately 23 percent completed the survey and of the 5,345 employees slated to relocate to the campus 1,083 or approximately 20 percent completed the survey. This represents a statistically significant sample of the population.

### 2.1 Characteristics of Employees at the FDA Campus

As of November and December 2007 (the time frame of the employee survey), approximately 1,890 FDA employees and contractor employees were located at the FDA Campus and were asked to participate in the employee survey. Of the 1,890 employees, 523 completed the survey. There are an additional 190 service contractors on-site who work in different areas such as the cafeteria, mailroom, security, etc. These contractors were not included in the survey.

#### a. Existing Location of Residences

Zip codes of employee residences were provided by FDA. Table 1 shows the counties in which employees reside based on the zip codes provided. A majority of the employees live in Montgomery County. The remaining employees are evenly split between Washington, DC and the other counties in Maryland and Virginia.

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<sup>1</sup> The word “relocate” or “relocation” refers to job relocation, whereas, the word “move” refers to employees moving or changing their residential location.

<sup>2</sup> While the 2006 Master Plan called for increasing the number of FDA employees to 7,719 by 2012, as of this study, there were approximately 7,235 FDA employees that either had or will be relocating to the FDA Campus.

**Table 1. Residential Location of Employees Working at the FDA Campus**

| Residential Location   | Number of Employees | Percentage  |
|------------------------|---------------------|-------------|
| Montgomery County      | 1,154               | 61%         |
| Frederick County       | 93                  | 5%          |
| Prince George's County | 118                 | 6%          |
| Howard County          | 87                  | 5%          |
| Other Maryland         | 158                 | 8%          |
| Washington D.C.        | 78                  | 4%          |
| Virginia               | 138                 | 7%          |
| West Virginia          | 8                   | <1%         |
| Other                  | 57                  | 3%          |
| <b>Total</b>           | <b>1,891</b>        | <b>100%</b> |

b. Change in Residential Location

As shown in Table 2, of the employees surveyed who have already relocated to the FDA Campus, approximately 11 percent moved their residence due to the change in job location. In comparing the zip code data from the employees that have relocated to White Oak and have moved their residence to the 2006 zip code data, it appears that most of the employees who relocated to White Oak lived along the I-270 corridor or in the Bethesda area prior to moving their residence closer to the FDA Campus.

**Table 2. Change in Residential Location: Employees Working at the FDA Campus**

| Answer Options      | Response % | Response   |
|---------------------|------------|------------|
| Yes                 | 11.5%      | 60         |
| No                  | 88.5%      | 463        |
| <b>Total Number</b> |            | <b>523</b> |

Furthermore, as shown in Table 3, approximately 6 percent of the respondents who were working at the FDA Campus at the time of the survey indicated that they were planning to move their residence in order to be closer to the FDA Campus.

**Table 3. Planning Residential Change in Location: Employees Working at the FDA Campus**

| Answer Options      | Response % | Response   |
|---------------------|------------|------------|
| Yes                 | 6.1%       | 32         |
| No                  | 93.9%      | 491        |
| <b>Total Number</b> |            | <b>523</b> |

In the 2004 survey, about 5.5 percent of the respondents indicated that they were “very likely” to relocate after FDA moves to the FDA Campus. Approximately 7.5 percent had indicated that they were “somewhat likely” to relocate. Thus overall, approximately 13 percent had indicated that they may move residences. Based upon the new Employee Survey this percentage has

increased. The recent results indicate that approximately 17.6 percent have either already moved or are planning to move to be closer to the FDA Campus.

c. Existing Travel Mode of Employees

Most of the 523 employees who have relocated to the FDA Campus drive alone to work. Table 4 shows the mode of transportation being used by these employees to get to work. As can be seen, approximately 20 percent use other modes of transportation including carpools, Metrorail, and bus.

**Table 4. Existing Travel Modes of Employees Working at the FDA Campus**

| Answer Options           | Response % | Response   | No of Vehicles |
|--------------------------|------------|------------|----------------|
| Drive alone              | 79.7%      | 417        | 417            |
| Carpool                  | 7.8%       | 41         | 20             |
| Registered Vanpool       | 1.1%       | 6          | 2              |
| Dropped off              | 1.3%       | 7          | 0              |
| Bus                      | 3.1%       | 16         | 0              |
| Metro Rail               | 1.7%       | 9          | 0              |
| Commuter Rail (MARC/VRE) | 2.5%       | 13         | 0              |
| Walk                     | 0.4%       | 2          | 0              |
| Bike                     | 0.8%       | 4          | 0              |
| Commuter Bus             | 1.5%       | 8          | 0              |
| <b>Total Number</b>      |            | <b>523</b> | <b>439</b>     |

*Note: Assumed 2 persons in a carpool and 3 persons in a vanpool*

d. Current Work Schedule

Employees were asked about their work schedules. Table 5 shows the work schedules of the employees that responded. Of the 523 employees who answered, 81 percent indicated that they typically work normal work schedules of 5 days and 40 hours per week. Figures 2 and 3 show the start and finish time of the employees, respectively.

As can be seen from Figure 2, a majority of the employees begin work between 7 a.m. and 9 a.m. A significant number of employees, approximately 10 percent, begin work at 6 a.m. and approximately 5 percent begin work around 10 a.m.

Table 5. Existing Work Schedule of Employees Working at the FDA Campus

| Answer Options  | Response % | Response   |
|---|------------|------------|
| Typically work consistent hours (5 days/40 hours per week)                      | 81.6%      | 427        |
| Irregular schedule – late hours or odd shifts (40 hours per week)               | 14.7%      | 77         |
| Alternate work schedule – 9 days 80 hours (you have a day off every other week) | 1.7%       | 9          |
| Alternate work schedule – 8 days 80 hours (you have a day off every week)       | 1.1%       | 6          |
| Part time   | 0.8%       | 4          |
| <b>Total Number</b>   |            | <b>523</b> |

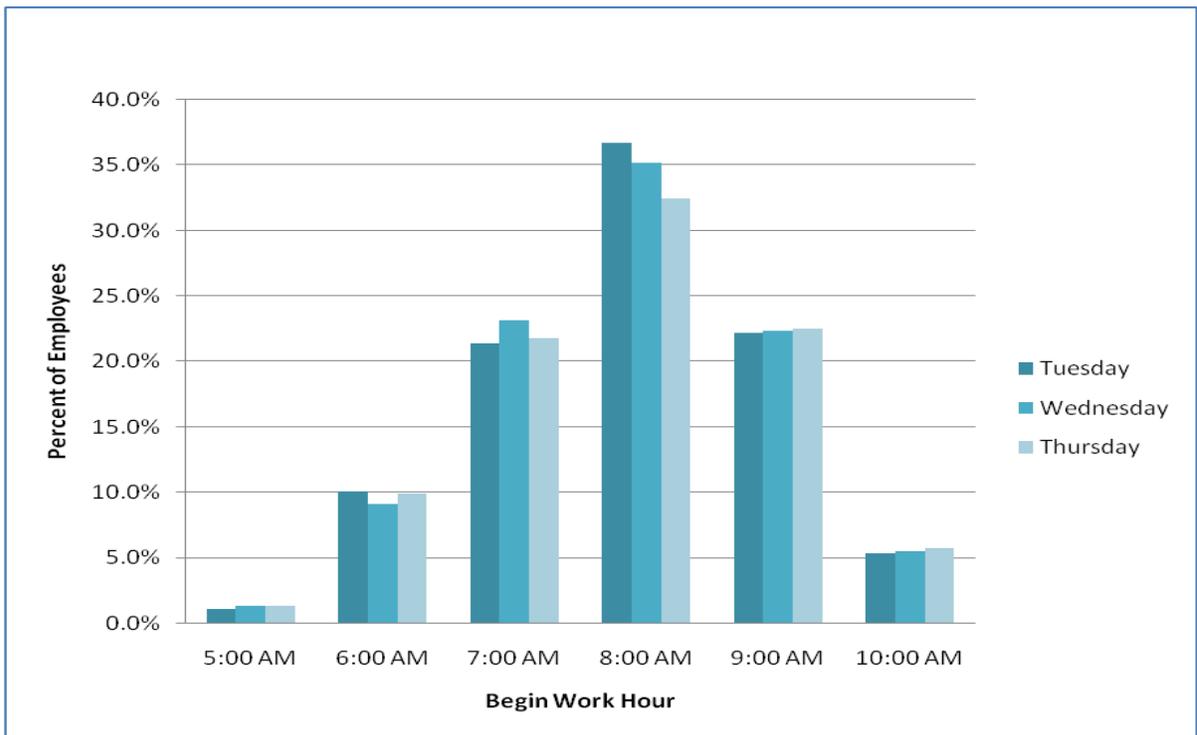
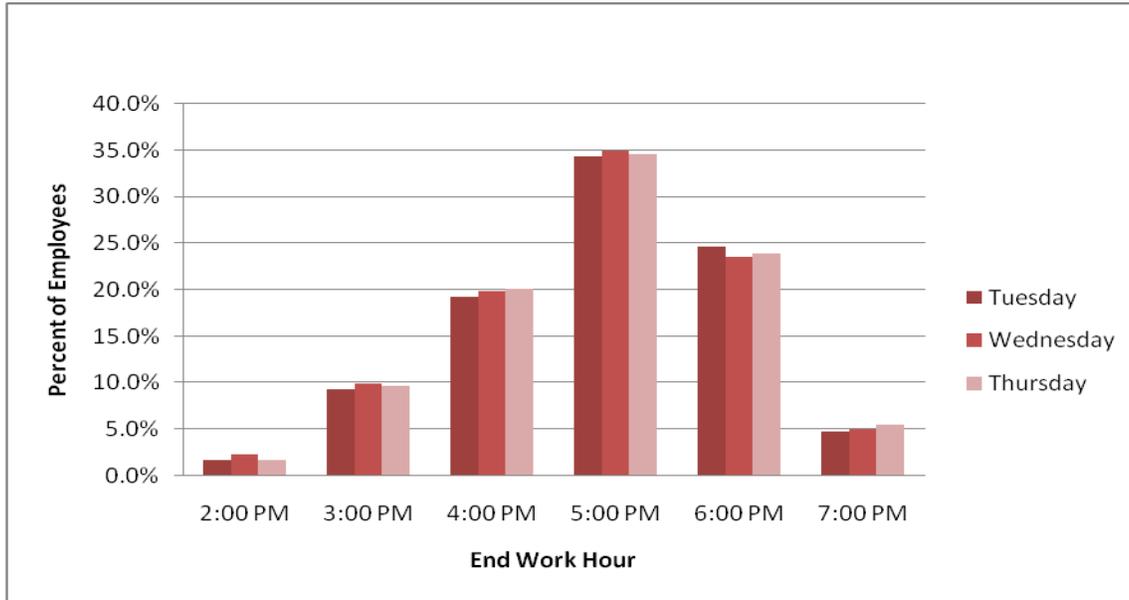


Figure 2. Begin Work Schedule of Employees Working at the FDA Campus

Similarly, Figure 3 indicates the finish time of employees working at the FDA Campus ranges between 4 p.m. and 6 p.m. with approximately 10 percent leaving work at 3 p.m. Although there is some peak hour spreading (i.e. employees do not leave at the same time but are spread out over the peak period), it is not very significant. Based on the traffic counts, the heaviest volumes on the adjacent streets are from 4 p.m. to 6 p.m. which indicates that most employees

will be leaving during this peak period. Overall, approximately 80 percent of the employees who work at the FDA Campus are leaving work between 4 p.m. and 6 p.m.



**Figure 3. Finish Work Schedule of Employees Working at the FDA Campus**

e. Telecommuting

As shown in Table 6, of the 523 employees working at the FDA Campus, approximately 50 percent of the employees telecommute. Of those who telecommute approximately 70 percent telecommute one day a week and approximately 25 percent telecommute two days a week. If these telecommuters are spread out evenly over a 5-day work week, 14 percent would telecommute on an average day. However, it was assumed that approximately half of the 14 percent of the telecommuters may have to come to work on days when they are scheduled to be telecommuting. Therefore, under a worst-case scenario assumption only 7 percent would telecommute on any given day.

**Table 6. Telecommuting – Employees Working at the FDA Campus**

| Answer Options      | Response % | Response   |
|---------------------|------------|------------|
| 1                   | 70.3%      | 182        |
| 2                   | 25.1%      | 65         |
| 3                   | 2.3%       | 6          |
| 4                   | 0.0%       | 0          |
| 5*                  | 2.3%       | 6          |
| <b>Total Number</b> |            | <b>259</b> |

\*Due to the nature of the work and location of employees, some employees work at telecommute centers, in other cities, or off site and only “commute” for meetings.

f. Existing Average Vehicle Occupancy (AVO)

The AVO is defined as the average number of people in a vehicle. Telecommuters were included in the AVO calculation at a rate of 7 percent per day. Therefore, for the purposes of this report AVO was calculated as follows:

$$\begin{aligned} \text{Average vehicle occupancy} &= \text{No. of employees/No. of vehicles to the site} \\ \text{AVO} &= (523+37) / 439 \\ \text{AVO} &= 1.27 \end{aligned}$$

Thus, the employees who work at FDA Campus have an AVO of 1.27. This is a slightly higher occupancy rate than the results from the 2004 survey where the AVO was 1.17.

**2.2 Characteristics of Employees Moving to the FDA Campus**

Approximately 5,345 FDA employees who are slated to move to the FDA Campus were asked to participate in the employee survey. Of the 5,345 employees, 1,083 completed the survey. Some of the highlights from this survey are outlined below. The entire survey results are provided in Appendix A.

a. Existing Location of Residences

Table 7 summarizes the existing location of the residences for FDA employees that will be relocated to the FDA Campus. Based on the zip codes of the employees’ home residences, a majority of the employees who will be relocating to the FDA Campus live in Montgomery County.

**Table 7. Residential Location of Employees to be Relocated to the FDA Campus**

| Residential Location   | Number of Employees | Percentage |
|------------------------|---------------------|------------|
| Montgomery County      | 3,272               | 61%        |
| Frederick County       | 409                 | 7%         |
| Prince George's County | 302                 | 6%         |
| Howard County          | 170                 | 3%         |
| Other Maryland         | 463                 | 9%         |
| Washington D.C.        | 208                 | 4%         |
| Virginia               | 423                 | 8%         |
| West Virginia          | 53                  | 1%         |
| Other                  | 47                  | 1%         |
| Total                  | 5,347               | 100%       |

b. Change in Residential Location

FDA employees who work at the FDA Campus were asked if they have or will move their residence. In addition, employees that are to be relocated to the FDA Campus were asked the likelihood of moving their residence. As shown in Table 8, of the 5,345 employees who are slated to relocate to the FDA Campus, approximately 4 percent are very likely to move their residence due to the change in job location and approximately 10 percent are somewhat likely to move their residence. These percentages are similar to the employees who are presently working at the FDA Campus, where 13 percent stated that they are very likely (5.5 percent) or somewhat likely (7.5 percent) to relocate their residence to be closer to the FDA Campus.

**Table 8. Residential Location Change – Employees to be Relocated to the FDA Campus**

| <b>Answer Options</b> | <b>Response %</b> | <b>Response</b> |
|-----------------------|-------------------|-----------------|
| Very likely           | 4.4%              | 48              |
| Somewhat likely       | 9.7%              | 105             |
| Not likely            | 85.9%             | 930             |
| <b>Total Number</b>   |                   | <b>1,083</b>    |

This survey result is similar to the responses received in the 2004 survey (the survey conducted for the 2006 TMP) where approximately 5.5 percent of the respondents indicated that they were “very likely” to move their residence after they relocate to the FDA Campus and approximately 7.5 percent had indicated that they were “somewhat likely” to move their residence. Thus overall, based on the results of the 2004 survey, approximately 13 percent had indicated that they may move residences.

c. Existing Travel Mode of Employees

Table 9 shows that of the 1,083 employees who responded to the employee survey and are to relocate to the FDA Campus, most (approximately 80 percent) drive alone to work. Approximately 7 percent participate in either carpools or vanpools and approximately 8 percent use either Metrorail or bus.

The employees who are working at the FDA Campus are participating more in carpools/vanpools (approximately 9 percent) as compared to the existing travel patterns of those who are slated to relocate to the FDA Campus (7 percent). Furthermore, employees who are working at the FDA Campus are using bus more (4.6 percent) and Metrorail less (1.7 percent) than those employees who are slated to relocate (2.3 percent and 6.4 percent, respectively). These results are consistent with expectations. The employees who are working at the FDA Campus do not have the same access to Metrorail, as the closest station is over 3 miles away from the FDA Campus. Instead of driving alone, however, employees who work at the FDA Campus are looking for other means to travel, and approximately 13 percent are carpooling/vanpooling or taking the bus.

**Table 9. Existing Travel Modes of Employees to be Relocated to the FDA Campus**

| Answer Options           | Response % | Response     | No of Vehicles |
|--------------------------|------------|--------------|----------------|
| Drive alone              | 80.4%      | 871          | 871            |
| Carpool                  | 5.6%       | 61           | 30             |
| Registered Vanpool       | 1.2%       | 13           | 4              |
| Dropped off              | 0.7%       | 8            | 0              |
| Bus                      | 1.4%       | 15           | 0              |
| Metro Rail               | 6.4%       | 69           | 0              |
| Commuter Rail (MARC/VRE) | 1.8%       | 20           | 0              |
| Walk                     | 0.6%       | 6            | 0              |
| Bike                     | 0.9%       | 10           | 0              |
| Commuter Bus             | 0.9%       | 10           | 0              |
| <b>Total Number</b>      |            | <b>1,083</b> | <b>905</b>     |

Note: Assumed 2 persons in a carpool and 3 persons in a vanpool

d. Current Work Schedule

Employees were asked about their existing work schedules. Table 10 shows that of the 1,083 employees who answered the survey, approximately 77 percent indicated that they typically work consistent hours.

**Table 10. Existing Work Schedule of Employees to be Relocated to the FDA Campus**

| Answer Options  | Response % | Response     |
|---|------------|--------------|
| Typically work consistent hours (5 days/40 hours per week)                      | 77.5%      | 839          |
| Irregular schedule – late hours or odd shifts (40 hours per week)               | 12.9%      | 140          |
| Alternate work schedule – 9 days 80 hours (you have a day off every other week) | 3.3%       | 36           |
| Alternate work schedule – 8 days 80 hours (you have a day off every week)       | 3.3%       | 36           |
| Part time   | 3.0%       | 32           |
| <b>Total Number</b>   |            | <b>1,083</b> |

Figures 4 and 5 show a comparison of the start and end times of the employees who work at the FDA Campus versus those that are to be relocated. Of the employees who are to be relocated over 60 percent start between 8:00 a.m. and 10:00 a.m. with over 30 percent starting before 8:00 a.m.

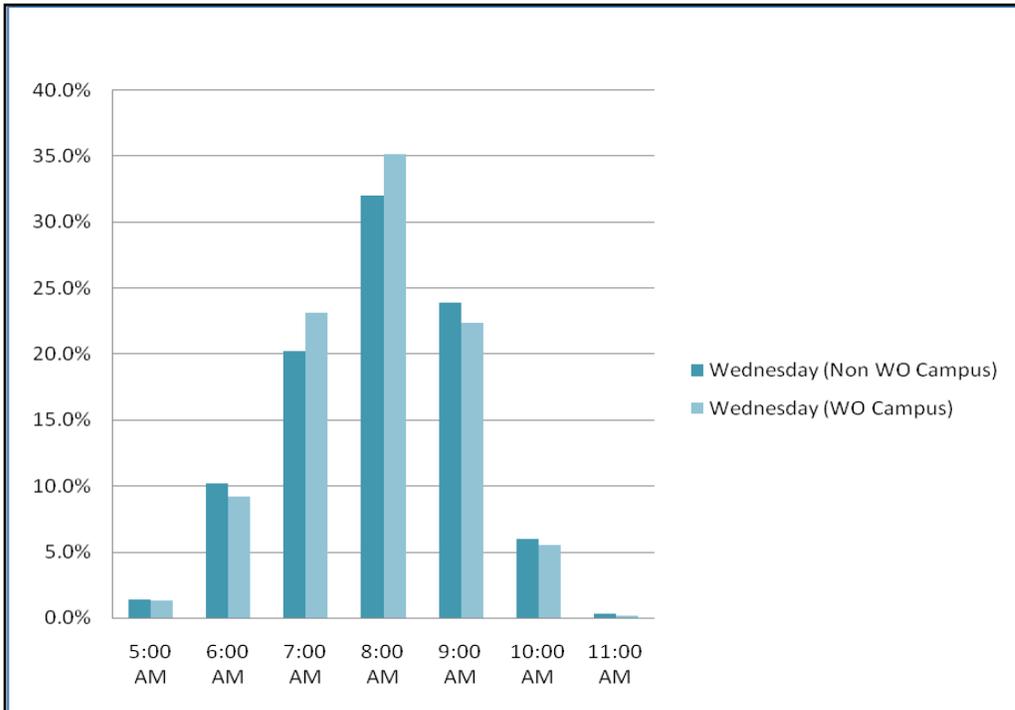


Figure 4. Begin Work Schedule of Employees Working at the FDA Campus versus Employees to be Relocated to the FDA Campus

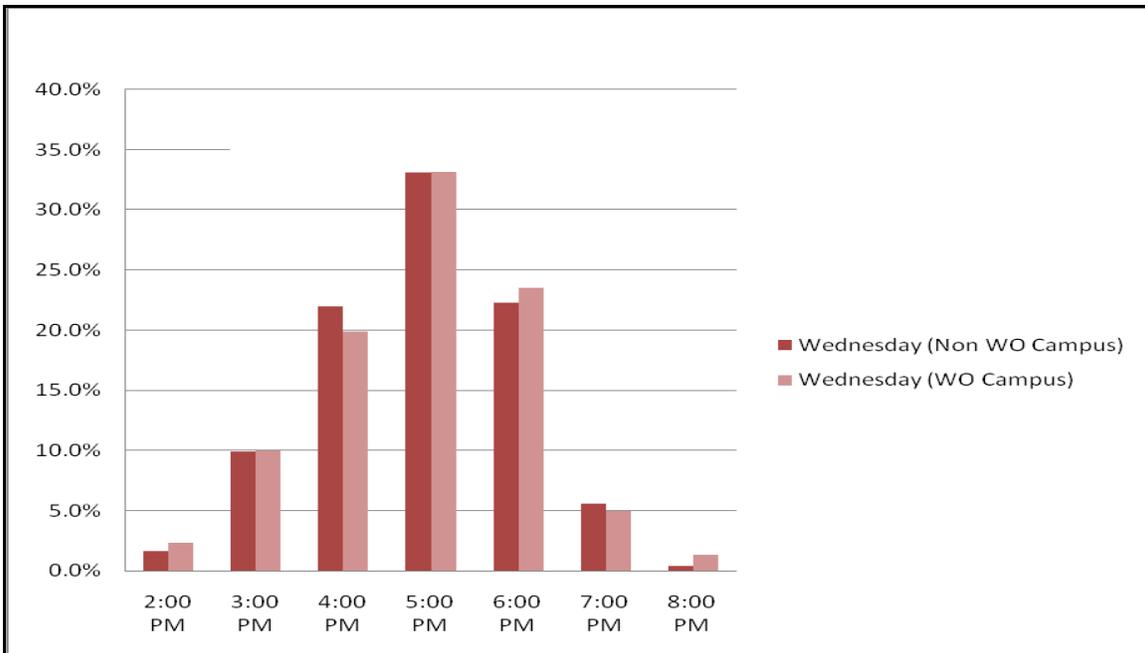


Figure 5. End Work Schedule of Employees Working at the FDA Campus versus Employees to be Relocated to the FDA Campus

Comparing the results from the employees working at the FDA Campus and the employees slated to relocate to the FDA Campus indicates that more employees working at the FDA Campus start work between the hours of 7 a.m. to 9 a.m. For example, on average approximately 35 percent of the employees working at the FDA Campus begin work at 8 a.m. versus approximately 32 percent of the employees who are slated to relocate to the FDA Campus.

Overall, it appears employees working at the FDA Campus begin work earlier than employees who have not yet relocated to the FDA Campus. Similarly it also appears that employees working at the FDA Campus are leaving work later than those who have not yet relocated to FDA Campus.

e. Telecommuting

Table 11 shows that of the 1,083 employees who completed the employee survey and who are slated to relocate to the FDA Campus, approximately 38 percent telecommute. Of those who telecommute, approximately 64 percent telecommute one day a week and approximately 30 percent telecommute two days a week. Assuming this is spread evenly over a 5 day work week, approximately 13 percent would telecommute on any given day. However, it was assumed that approximately half of the 13 percent of telecommuters may have to come to work on days when they are scheduled to be telecommuting. Therefore, under a worst-case scenario assumption only 7 percent would telecommute on any given day.

**Table 11. Existing Telecommuters – Employees to be Relocated to the FDA Campus**

| Number of Days      | Response % | Response   |
|---------------------|------------|------------|
| 1                   | 64.2%      | 265        |
| 2                   | 29.8%      | 123        |
| 3                   | 2.2%       | 9          |
| 4                   | 1.0%       | 4          |
| 5                   | 2.9%       | 12         |
| <b>Total Number</b> |            | <b>413</b> |

f. Existing Average Vehicle Occupancy

The AVO is defined as the average number of people in a vehicle. Telecommuters were included in the AVO calculation and again it has been assumed that on any given day 7 percent of the people telecommute. Thus, for the purposes of this report, AVO was calculated as follows:

Average vehicle occupancy = Number of employees/Number of vehicles to the site

$$AVO = (1,083+76) / 905$$

$$AVO = 1.28$$

Therefore, the employees who are slated to relocate to the FDA Campus have an AVO of 1.28. This is a higher occupancy than the results from the 2004 employee survey where the AVO was 1.17.

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### 3 EFFECTIVENESS OF TMP STRATEGIES IMPLEMENTED

The 2006 TMP identified a variety of strategies for encouraging the use of alternative modes of transportation including the following:

- Hiring an Employee Transportation Coordinator (ETC)
- Carpool/Vanpool Incentives
  - Preferred Parking
  - Employee Matches
  - Employee Leased Vehicles (Vanpooling)
  - Guaranteed Ride Home
  - Shuttle Service
- Transit Incentives
  - Subsidies
  - Shuttle Service
  - Guaranteed Ride Home
  - On-site Passes
  - On-site Transit Stops
  - Coordination with Transit Agencies
- Telecommuting Program
- Bicycling/Walking to Work Incentives

The progress of each of these strategies is discussed in this section.

#### 3.1 Employee Transportation Coordinator (ETC)

The most important element of implementing a TMP is to provide employees with the information they need to make a decision. This includes identification of transit services available, carpool riders, and various programs available. To perform these functions, FDA has established a position for an Employee Transportation Coordinator (ETC) within the Office of White Oak Services, Division of Logistic Services and Facilities Operations. The ETC is responsible for administering the TMP and facilitating the implementation of strategies. The ETC duties include the administration of ridesharing programs; parking programs; preparation of promotional and informational materials for employees and visitors; and coordination with local and regional transportation agencies. The ETC will also be responsible for monitoring the various programs and measuring progress towards meeting the TMP goals.

FDA's Fiscal Year 2009 budget provides for the hiring of an ETC and the FDA is actively recruiting for the ETC position. Until the ETC position is filled, an acting ETC has been appointed and is performing these functions. The acting ETC has implemented a shuttle bus service and is actively working to provide bicycle facilities on site. The acting ETC has hosted bicycle-to-work days with the employees. The acting ETC has also worked with Montgomery County Transit to increase the frequency of bus service and supplemented this service with the FDA shuttle.

### 3.2 Carpool/Vanpool Incentives

Of the 1,890 FDA employees working at the FDA Campus as of May 2008, approximately 9 percent are carpooling/vanpooling. The goal in the 2006 TMP was to have 18 percent of the employees carpooling/vanpooling. The lower percentage of employees actively carpooling/vanpooling than was estimated can be attributed to the fact that only 25 percent of the 7,719 employees that are to be relocated/located are presently working at the FDA Campus, thereby limiting the number of potential riders. The number of employees in carpools/vanpools is expected to rise as additional FDA employees relocate to the FDA Campus.

To encourage/facilitate carpooling/vanpooling, several strategies were outlined in the 2006 TMP. These strategies and the progress achieved are discussed below:

a. Preferred Parking

*2006 TMP Strategy:*

- 1) Reserve carpool and vanpool parking spaces at locations which provide more convenient access to the buildings than will be provided for single occupant vehicle spaces.
- 2) Guarantee parking spots for employees who carpool/vanpool. Special stickers or passes should be issued to monitor the use of these spaces.
- 3) In order to meet the Phase IIIA goals of the FDA Master Plan which calls for 2,056 employees to be relocated to the FDA Campus by 2007, approximately 123 carpool and 12 vanpool spots need to be reserved.

*Progress:*

- 1) Parking signs indicating which spaces are reserved for carpooling/vanpooling vehicles were installed in September 2008.
- 2) Carpool/vanpool parking permits are issued to each carpool/vanpool.
- 3) As of May 2008, population at the FDA Campus has not yet reached Phase IIIA levels.

b. Facilitating Employee Matching

*2006 TMP Strategy:*

- 1) Create a central list of all the employees interested in carpooling and vanpooling.
- 2) The ETC will match people according to their residential proximity and work schedule.
- 3) The ETC will also facilitate the employees meeting each other by organizing the first meeting. This is especially important for the FDA Campus, because there will be a large number of employees, and thus many employees who may potentially match up may not know each other.

- 4) The ETC will also follow up with the employees to determine if the employees are a good fit and/or if new arrangements need to be made. Furthermore, if the ETC takes an interest in the employees finding “good” pool partners, employee matching will most likely be self promoting and may facilitate other employees taking this option under consideration. This will be an iterative process as each batch of employees moving to the White Oak FDA Campus will need to be matched with potential carpoolers/vanpoolers.

*Progress:*

- 1) A computer application which automatically creates a database of carpools and vanpool participants has been created. The application automatically adds employees to the database when an employee submits an application.

A request for carpool and vanpool applications was issued in March 2008 after the newest building, Building 51, was occupied. The new building brought approximately 1,000 additional employees.

FDA has a signed Memorandum of Understanding (MOU) with the Metropolitan Washington Council of Governments (MWCOG) and is working closely with MWCOG technical database experts in order to be able to interface with the database of potential carpoolers in order to match employees who live and work in the same zip codes with each other.

- 2) In situations where individuals are seeking to ride with a carpool/vanpool, the acting ETC has been matching riders on a limited basis by providing a bulletin board for ride matching.
- 3) FDA has held a commuter brown bag meeting promoting alternative modes of transportation. A Washington Metropolitan Area Transit Authority (WMATA) registered vanpool leasing company participated and explained the economics of a registered vanpool.
- 4) The ETC will continue to match riders and help find “good” pool partners as more employees move to the FDA Campus.

c. Employee Leased Vehicles (Vanpooling)

*2006 TMP Strategy:*

- 1) The ETC will encourage employees to participate in vanpooling by facilitating a vanpool meeting to willing FDA employees. A group of employees can lease a van on a month-to-month basis from a vanpool leasing company. The vanpool leasing company usually covers the insurance and regular upkeep of the van.
- 2) Employee operated vanpools may qualify as transportation fringes and may be eligible for transit subsidy.
- 3) The ETC will play a very important role in introducing employees living in the same residential area to each other.
- 4) The ETC will identify vanpool leasing companies.

- 5) A cluster of 12 to 15 people located within a 3-mile radius will be identified who are committed to using the van at least three or four days per week.

*Progress:*

- 1) FDA has held a commuter brown bag meeting promoting alternative modes of transportation. A MWCOG registered vanpool leasing company participated and explained the economics of a registered vanpool.
- 2) Registered vanpools are eligible for federal transit subsidies which will reimburse employees for using transit up to \$230 per month.
- 3) A computer database of carpools and vanpool participants has been created. This will aid the ETC in matching employees who want to participate in carpooling or vanpooling.

d. Guaranteed Ride-Home Service

*2006 TMP Strategy:*

- 1) Zipcars® are a means of providing vehicles to employees who do not drive to work but may need to have a vehicle in case of an emergency or if they need to run errands during their lunch hours. Zipcars® must be picked up at a specified parked location, and returned to that same location at the end of the rental period. If there is demand for these vehicles, the ETC will work to have several vehicles located on site.
- 2) Another option for the ETC is joining the MWCOG “Guaranteed Ride Home” regional program. It will guarantee a ride home if an emergency arises or an employee has to work overtime.

*Progress:*

- 1) The acting ETC has looked into Zipcars® and determined that due to the fact that Zipcars® must be picked up and returned to the same location they may not be a financially desirable means of transportation. The Silver Spring Metrorail Station has several Zipcar® locations and employees can use Zipcars® from this station if needed. Zipcar® has indicated that they continually do market research and they may add new locations in the future.
- 2) FDA has signed a MOU with MWCOG and subscribes to MWCOG’s Commuter Connections Program, which includes the “Guaranteed Ride Home” program.

FDA intends to initiate outreach to its carpools, shuttle passengers and transit passengers to encourage them to register with “Guaranteed Ride Home.”

e. Shuttle Service/FDA Owned Cars for FDA Business

*2006 TMP Strategy:*

- 1) Reduce the percentage of employees having to commute to other FDA offices through providing:
  - FDA External (Commuter) Shuttle which serves the local transit stations

- FDA Internal Shuttle to circulate through the site and other FDA sites
- FDA Vehicles for business use

The implementation of these services decreases the need for employees to drive to the site.

*Progress:*

- 1) FDA has implemented a three-bus, three route commuter shuttle bus system that is carrying more than 400 passengers per week. In addition to connecting the FDA Campus to major rail links with one route serving the Twinbrook Metrorail Station, one route serving the east red line at the Silver Spring Metrorail Station, and the third route serving the green line at the College Park Metrorail Station, the shuttle bus system also provides services to other FDA offices. These routes also connect routes of the Maryland Area Rail Commuter (MARC) train - the Brunswick and the Camden Lines and the Parklawn and Wiley Buildings.

An internal circulator shuttle has recently been added to allow employees to easily access their buildings from one central drop off point (see Figure 6). The circulator shuttle carries more than 500 passengers per week.

### **3.3 Transit Incentives**

The physical location of the FDA Campus is a constraint for the use of transit by FDA employees that have relocated to the Campus. The closest Metrorail Station is over three miles away. However, of the 523 employees who completed the employee survey and that are located at the FDA Campus, approximately 20 percent use transit facilities.

A major focus of this TMP is to increase the number of employees using transit to get to work. Therefore, several strategies were outlined in the 2006 TMP to encourage/facilitate employees using transit. Below is a listing of these strategies and their current progress.

a. Transit Subsidy

*2006 TMP Strategy:*

- 1) Transit passes will be sold at the FDA Campus so that employees can make their purchase at their convenience.

*Progress:*

- 1) FDA facilitates the distribution of the Federal Transit Subsidy to employees which meet the program requirements. The distribution is done on site at the FDA Campus. This subsidy amounts to as much as \$230 per month per participant which is the maximum allowed. FDA is looking into a program that would allow employees to buy Fare Media on site. They also provide a \$20/month subsidy for bicyclists who commute on bike at least 40 percent of the time.

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b. Shuttle Service

*2006 TMP Strategy:*

- 1) Shuttles from Silver Spring, Twinbrook, and College Park Metrorail stations are being provided to/from the FDA Campus. Peak hour trips are not made to the Silver Spring Metrorail station by the shuttles because Montgomery County's Ride On 22 bus route provides this service. However, there is no service during the midday. The shuttle service is designed to supplement this service in order to accommodate employees needing access to the Silver Spring Metrorail Station during this time period.

*Progress:*

- 1) Shuttle ridership is expected to expand as a result of the increase in population on the FDA Campus. Over 400 passengers use the shuttle service on a weekly basis and just recently a third shuttle bus has been added. Once employees arrive at the FDA Campus, the internal shuttle bus helps employees get to their respective buildings (see Figure 6).

The acting ETC continues to work closely with Montgomery County and WMATA transit planners to have heavier used shuttle bus links taken over by public transit. The FDA shuttle will be used to fill in the gaps in the mid-day and evening to provide maximum flexibility to FDA shuttle and transit passengers. FDA is also evaluating the possibility of two additional shuttle trips in the evening after the Ride On 22 has finished its last run. These trips would occur at approximately 7:15 p.m. and 8 p.m.

In a formal public hearing, held on April 17, 2007, the FDA provided testimony with regard for the need to increase transit service to the FDA Campus. This resulted in a 75 percent increase in service by the County Transit Buses directly into the FDA Campus (Ride-On 22). This increase in service has been received favorably by the FDA transit passengers.

c. Guaranteed Ride-Home Service

See the discussion under carpool/vanpool.

d. On-Site Transit Stop

*2006 TMP Strategy:*

- 1) Develop a transit stop on-site which will achieve the optimum convenience for shuttle and transit passengers and minimize the time that public transit vehicles divert onto the site.

*Progress:*

- 1) A transit stop has been set up at the entrance to FDA, in front of Building 1. It is able to accommodate, WMATA and Montgomery County Ride On buses, and the FDA Shuttle. This location is a central place for all employees to be able to gain access to all the transit services, and also to maximize shuttle efficiency (see Figure 6).

e. Coordination with Other Agencies

*2006 TMP Strategy:*

- 1) The ETC will contact the local transit agencies. The ETC will monitor the employees and work with local transit agencies and update the FDA shuttle service schedule to provide continually better service as demands increase. It is anticipated that the frequency of Ride On 22 will need to be increased as the employees take the MARC into the Silver Spring Metrorail Station.
- 2) The ETC will also monitor the transit services being provided to minimize any overlap of services.
- 3) There is bus service from the Silver Spring and Twinbrook Metrorail Stations which could be routed to the site. These buses run at 30 minute headways during the peak hours. As the demand for these services increases, the ETC will work with Montgomery County Transit to decrease the headways and provide express service.
- 4) There are a number of park and ride lots in Montgomery County. The lot at I-270 and MD 124 would be a prime location for providing express service (via the Maryland Transit Administration (MTA)) to the FDA White Oak. The ETC will need to coordinate with the employees and Montgomery County and/or MTA to determine the feasibility of this service.

*Progress:*

- 1) As a result of the growing population at the FDA Campus, and coordination between the acting ETC and public transit agencies, the present Ride On 22 service was increased by 75 percent with 15 minute headways during peak hours.  
  
FDA has worked closely with local transit agencies to ensure a location for public transit buses to conveniently divert into the FDA Campus and pick up passengers.
- 2) The acting ETC continues to work closely with Montgomery County and WMATA transit planners to have heavier used shuttle bus links taken over by public transit and to ensure that there is no overlap of services.
- 3) FDA continues to engage in discussions with transit planners from Montgomery County and WMATA to discuss possibilities for enhancing service to the site by diverting additional bus lines into the FDA Campus.
- 4) The ETC will continue to work closely with Montgomery County and WMATA transit planner to determine the feasibility of strategies to get people to and from the FDA Campus.

**3.4 Telecommuting Program**

*2006 TMP Strategy:*

- 1) Encourage each organization to investigate if there are any positions that can be successfully completed from either home or a telecommuting work center.
- 2) Investigate options such as satellite work centers. Given the nature of the work, it is understood that many sections especially the labs may find it difficult to undertake the

telecommuting option. Thus, the FDA's goal is for each of the organization offices to identify between 10 and 20 employees who can be telecommuters bringing the total number of telecommuters to approximately 2 percent.

*Progress:*

- 1) FDA experiences a very high rate of participation in the Flexible Workplace Program. Participants work as many as three days a week from remote locations with the majority of the participants working off site one to two days per week.

Recent survey results indicate that approximately 70 percent of the employees who work at the FDA Campus telecommute at least one day a week.

- 2) Most FDA employees who telecommute work from home. As computers come up for replacement, FDA is issuing laptops, making it very convenient for employees who can and want to telecommute to work from home. Thus, satellite work centers are no longer needed as working from home has become the chosen option for telecommuters.

### **3.5      Bicycling to/Walk-to-Work Incentive**

*2006 TMP Strategy:*

- 1) Encourage employees living in close vicinity of the FDA Campus to walk to work or bicycle to work. Facilitate this by providing shower facilities on site.
- 2) Provide sheltered bicycle racks at all buildings so that employees will have the ease of parking their bicycles at work.
- 3) Design internal roadways to be bicycle and pedestrian friendly.

*Progress:*

- 1) FDA holds up to three bicycle commuter meetings per year during the summer months, to advertise this as a means for commuting. GSA has provided showers in the FDA buildings and lockers in some locations.

The bicycle commuter group maintains regular communications with its participants and its accomplishments include effective advocacy for a County Sidewalk Project. This resulted in supplemental funding that allowed the project to be built. This project opens up a vital link to the campus that is critical to all cyclists traveling to the FDA Campus from the south. Without this sidewalk the route would have been an extreme hazard to the bicycle commuter.

Additionally, through the acting ETC, bicycle commuters participated in a mapping exercise that resulted from the County Office of Commuter Services initiative. They participated in identifying formal and informal bicycle routes that assist individuals considering this mode in developing a route to work.

- 2) Areas are being set aside in the parking garages for bicycle parking and racks are provided in these locations.
- 3) Sidewalks are provided along internal roads and internal roadways are being designed to accommodate bicycles.

Over 1 percent of the employees at the FDA Campus walk or bike to work.

### 3.6 Analysis of the Strategies Implemented and their Effectiveness

In the 2006 TMP, the overall goal for the end of 2007 and with 2,056 employees on-site was to achieve a parking ratio of 1.29. The 2006 TMP parking ratio/goal was expected to be achieved by heavily stressing carpool and vanpools as a mode of transportation. Based on our data, this goal is being achieved through other transportation strategies which have proven to be more successful, such as telecommuting. Table 12 summarizes the modal split as suggested in the 2006 TMP compared with the existing mode split.

Overall, the FDA is meeting its mode split goals as set forth in the 2006 TMP. The goal was to achieve a parking ratio of 1.29 and the existing parking ratio for the FDA Campus is 1.31.

**Table 12. Mode Split**

|  | Mode Split Goals - 2007 |             |              | Existing Mode Split |              |              |
|--|-------------------------|-------------|--------------|---------------------|--------------|--------------|
|  |                         | No. of Emp. | Parking      |                     | No. of Emp.* | Parking      |
| No. of total employees                         |                         | 2,056       |              |                     | 2,080        |              |
| Carpool  | 15%                     | 308         | 123          | 8%                  | 166          | 83           |
| Vanpool  | 3%                      | 62          | 12           | 1%                  | 21           | 7            |
| Transit  | 6%                      | 123         | 0            | 9%                  | 187          | 0            |
| Telecommute                                    | 2%                      | 41          | 0            | 7%**                | 146          | 0            |
| Walk/Bike/Dropped off                          | 1%                      | 21          | 0            | 1%                  | 21           | 0            |
| Absent   | 2%                      | 41          | 0            | 2%**                | 42           | 0            |
| Total No. of Emp. (travel by other means)      |                         | 596         | 136          |                     | 583          | 90           |
| SOV  |                         |             | 1,460        |                     |              | 1,497        |
| <b>Total Number of Parking Spaces Provided</b> |                         |             | <b>1,595</b> |                     |              | <b>1,587</b> |
| <b>Parking Ratio</b>                           | <b>1.29</b>             |             |              | <b>1.31</b>         |              |              |

\*Number of employees includes the 1,890 FDA employees and contractor employees on-site and the 190 service contractors

\*\*Note: Actual Mode split % are rounded up to nearest whole number

2% absentees has been assumed • 7% telecommuting has been assumed

According to the employee survey results, approximately 9 percent of the employees who work at the FDA Campus are using carpools or vanpools. The TMP goal was to obtain approximately 15 percent carpool/vanpool participation at this stage of occupancy.

With the influx of an additional 1,170 employees, the number of people participating in carpools/vanpools is expected to rise as there will be more potential carpool/vanpool matches. Furthermore, with the assignment of preferred parking spaces for the carpools and vanpools, employees are expected to be more inclined to use this mode of travel as parking becomes limited. It has been difficult to implement some of the parking restriction strategies due to construction on-site,

influx of construction related contractors, and an increased number of visitors, but designated carpool/vanpool spaces have been assigned. To help increase the number of carpool/vanpool users, an employee carpool/vanpool database has been set up which will facilitate the matching of employees. This will become increasingly useful as the number of employees on site increase and carpool/vanpool permits are issued.

The FDA shuttle runs three routes and connects the FDA Campus to the Metrorail, commuter rail, and other FDA offices. Over 400 employees use it on a weekly basis. The TMP goal was to have approximately 6 percent of the FDA Campus population use transit. The survey results indicate that approximately 9 percent of the employees use transit as their primary mode of travel (a combination of bus, Metrorail, commuter rail, and commuter bus). FDA is exceeding the goals set in the 2006 TMP. The addition of the FDA shuttle and the change in frequency of Montgomery County Ride On 22 has had a significant positive impact on providing employees with ways to use transit to get to/from the FDA Campus.

Similarly, FDA is significantly exceeding the telecommuting goal of 2 percent set in the 2006 TMP. Approximately 50 percent of the employees indicate that they telecommute at least one day a week. In fact, approximately 12 percent of the employees telecommute two days a week. Therefore, any day of the week has at least 14 percent telecommuters indicating that there are a significant number of telecommuters midweek. The day with the highest number of employees telecommuting is Friday.

It should be noted that for the purposes of this TMP update, 7 percent telecommuter ratio has been assumed for existing conditions (year 2007), even though the actual number of telecommuters is much higher. Due to the nature of the work at the FDA, it is likely that telecommuters may have to come to work on certain days when they are supposed to be telecommuting, or more telecommuters may be telecommuting on Monday/Friday which would mean that more parking spaces will be needed during the midweek. It is believed that a lower telecommuter rate will produce a more conservative analysis and to account for these types of variables.

Approximately 1 percent of the FDA Campus employees are either walking or biking to work. FDA is meeting the walk/bike goal set in the 2006 TMP which aimed at a one percent participation. The acting ETC has been very instrumental in providing the tools for the employees to use this mode of travel.

Overall, FDA is exceeding the mode split goals set in the 2006 TMP. The agency is meeting/exceeding the goals set for transit, telecommuting, and walking/biking. However, carpools/vanpools are not forming at the rate that was originally projected. When the TMP was first developed for the FDA Campus, it was projected that carpools/vanpools would be the catalyst for meeting the goals of the TMP. However, as time has shown, FDA's Flexible Workplace Program and the FDA Shuttles have been the most beneficial in helping the agency meet its goals. Participants work as many as three days a week from remote locations with the majority of the participants working off site one to two days per week. This is due in part to a shift in FDA's emphasis over time to telecommuting as an alternative to the traditional work place. The FDA has begun issuing laptops as old desk top computers come up for replacement, making it very convenient for employees who can and want to telecommute to work

from home. FDA has also put more emphasis on providing subsidies for internal and external shuttles to help employees use transit to get to/from work. This emphasis has allowed FDA to exceed its transit goals. The telecommute availability and success may also be reducing the opportunities to form carpools as employees schedule at work is less consistent than in more traditional working arrangements. As more employees relocate to the FDA Campus, FDA will continue to look for opportunities to make gains in the area of carpool and vanpool formation.

FDA is meeting the goals outlined in the 2006 TMP. Based on the results of the recent employee survey, it will be necessary to adjust/modify some of the strategies to meet the overall parking ratio goal of 1:1.5 by build out.

## 4 EXISTING TRANSPORTATION SYSTEM

In addition to evaluating the effectiveness of existing TMP strategies, this TMP update also assesses the current conditions of the transportation system.

This section describes the existing site characteristics at the FDA Campus, as well as the roadways and public transportation serving the site. An in-depth analysis of the existing transportation system was conducted in the transportation section of the 2005 Supplemental Environmental Impact Statement (SEIS). Many of the changes originally proposed in the 1997 EIS have either already been constructed or are under construction. As many of the improvements necessary to support this consolidation have been programmed, this section focuses on the site characteristics at the time of full build-out.

### 4.1 Site Characteristics

The FDA Campus is located just north of the Capital Beltway (I-495). It is bound on the western edge by New Hampshire Avenue and by the Hillandale neighborhood on the southern side. The U.S. Army Adelphi Laboratory is also located to the south of the site. Apartments and the Percontee Quarry are located to the east and north of the site, respectively. Land to the west of New Hampshire Avenue is mostly developed with single family homes as is the land to the east of Cherry Hill Road. However, there are various commercial developments, such as strip malls and gas stations, along both New Hampshire Avenue and Cherry Hill Road.

Three access points are proposed for the site. Primary access will be provided from New Hampshire Avenue via the main gate at Mahan Road. Access will also be provided via a northern gate along New Hampshire Avenue at Michelson Road (Relocated). A new eastern access road is under construction to connect the FDA Campus to Cherry Hill Road, north of the Powder Mill Road intersection. The site will be a secure facility with gates provided at each access point. A ring road will be constructed around the FDA campus to serve the parking and buildings, and thus access to each building will be provided internal to the site. Figure 7 shows the existing site plan for the FDA Campus.

#### a. Roadways

A number of studies have been performed to identify the roadway improvements recommended to accommodate the projected traffic at an acceptable level of service. The existing roadway network is shown in Figure 8 and the key roadways are discussed below.

- Interstate 495 (I-495). In the vicinity of the site, I-495, also known as the Capital Beltway, is an eight-lane, divided, interstate highway which runs in an east-west direction. It carries approximately 218,000 vehicles per day (VPD). The posted speed limit near the FDA Campus is 55 miles per hour (mph).
- New Hampshire Avenue (MD 650). This is a six-lane, divided roadway with a posted speed limit of 35 mph. The road runs in a north-south direction and has a grade separated interchange with both I-495 and US 29. New Hampshire Avenue carries approximately 60,200 VPD. Its intersections with Elton Road, Powder Mill Road, Schindler Drive/Mahan Road, Michelson Road, and Lockwood Drive are signalized. There are auxiliary turn lanes present along this roadway at all signalized intersections.

# FOOD AND DRUG ADMINISTRATION TRANSPORTATION MANAGEMENT PLAN



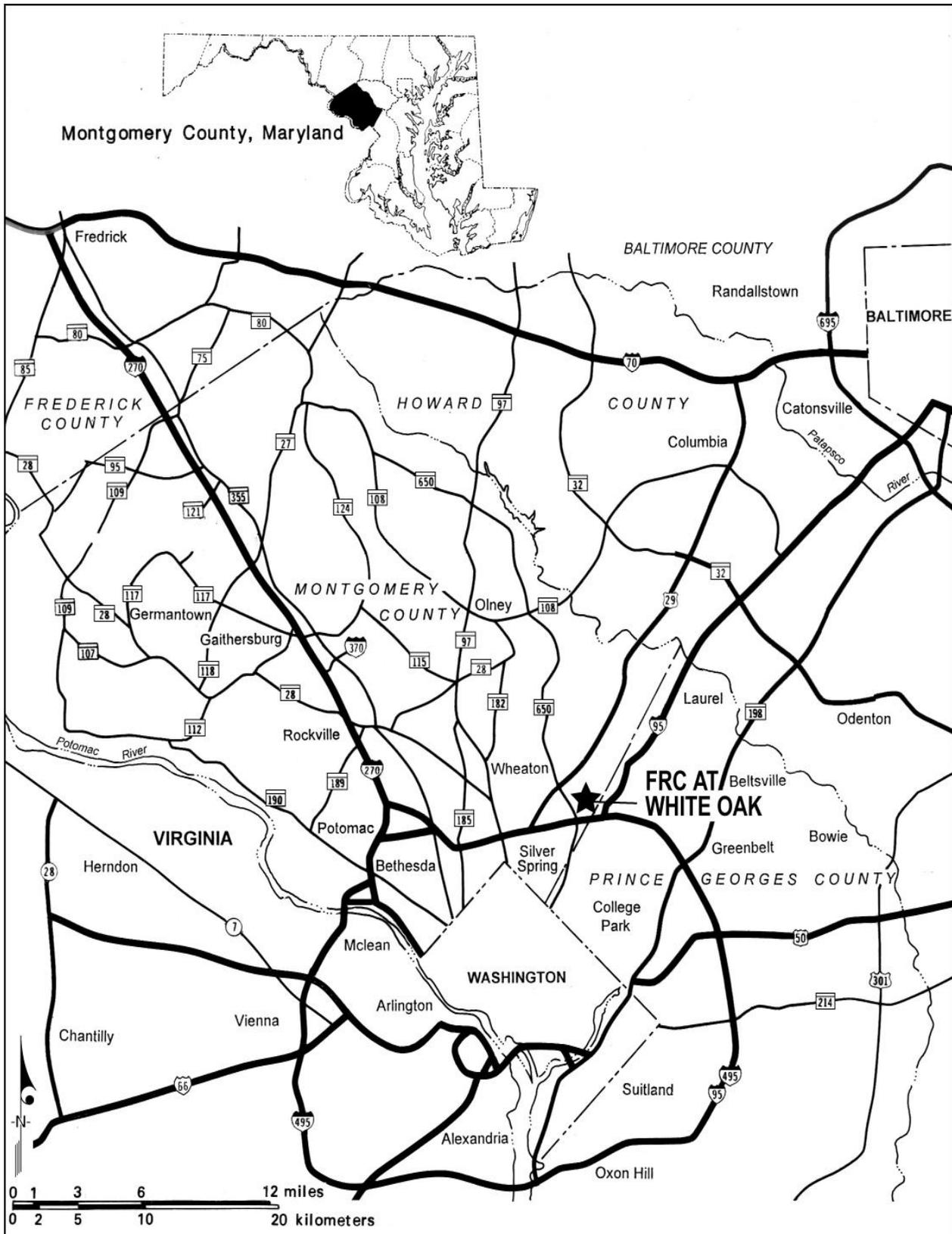


Figure 8. Existing Roadway Network

- Powder Mill Road (MD 212). This is a two-lane roadway between New Hampshire Avenue and Cherry Hill Road, with a posted speed limit of 35 mph. It runs in an east-west direction, with signalized intersections at New Hampshire Avenue and Cherry Hill Road. East of Cherry Hill Road, it becomes a four-lane roadway and has an interchange with I-95. The east leg, at New Hampshire Avenue, consists of two exclusive left turn lanes, a shared left/through lane and an exclusive right turn lane. The west leg consists of an exclusive left turn lane, a shared right/through lane, and an exclusive right turn lane. In 2006, it carried approximately 26,000 VPD.
- Columbia Pike (US 29). This is a six-lane highway with a posted speed limit of 50 mph. It runs in a north-south direction, parallel to I-95, and ends at I-70 to the north. It has an interchange with New Hampshire Avenue and a newly constructed grade separated interchange at Cherry Hill Road/Randolph Road. It carries approximately 70,000 VPD.
- Cherry Hill Road. This roadway runs in a north-south direction and has a posted speed limit of 40 mph. In the vicinity of the White Oak Site it has a four-lane cross-section. Its intersections with Powder Mill Road, Plum Orchard Drive, Calverton Drive, and Prosperity Drive are signalized. Its intersection with US 29/Randolph Road is a grade separated interchange.
- Randolph Road. North of Columbia Pike (US 29), Cherry Hill Road becomes Randolph Road. It is a four-lane undivided highway that runs in an east-west direction. The posted speed limit is 35 mph.
- Plum Orchard Drive. This is a two-lane roadway which runs in an east-west direction. Its intersection with Cherry Hill Road is signalized. It is developed with multi-family homes east of Cherry Hill Road and a large shopping center exists on the northwest quadrant. The speed limit for this roadway is not posted.
- Calverton Boulevard/Broadbirch Drive. This is a two-lane roadway which connects Cherry Hill Road to Powder Mill Road (MD 212) via Beltsville Drive. Similarly, Broadbirch Drive connects Cherry Hill Road to Columbia Pike via Tech Road. It is a two-lane roadway to the east of Cherry Hill Road and becomes a four-lane facility to the west. To the west of Cherry Hill Road, this roadway serves a shopping center and other office/commercial developments. To the east of Cherry Hill Road, this roadway serves as the primary access point to a neighborhood. Its intersection with Cherry Hill Road is signalized. The posted speed limit is 30 mph.
- Prosperity Drive. This roadway runs in an east-west direction, teeing into Cherry Hill Road and extending past Tech Road. Its intersection with Cherry Hill Road is signalized. Land along Prosperity Drive is developed with either retail or office developments. The posted speed limit is 30 mph.

- Lockwood Drive. This roadway runs in an east-west direction from US 29 (Columbia Pike) to east of New Hampshire Avenue. It provides access to several commercial and residential developments located along it. There is a large shopping center at the northeast corner of its intersection with New Hampshire Avenue. The posted speed limit is 30 mph. The southbound approach of this intersection provides an exclusive left turn lane, two through lanes and a shared right/through lane. The northbound approach provides a shared right/through lane and two through lanes. The east leg of this intersection provides two exclusive left turn lanes and a shared left/right lane. There is a parking lot to west of this intersection.
- Michelson Road. This roadway provides a secondary entrance from New Hampshire Avenue into the FDA Campus. Its intersection with New Hampshire Avenue has been relocated to the southeast as part of the New Hampshire Avenue widening and the FDA consolidation. The east leg of Michelson Road at New Hampshire Avenue provides an exclusive left turn lane, a shared left/through lane and an exclusive right turn lane.
- Schindler Drive/Mahan Road. This roadway runs in an east west direction. To the west of New Hampshire Avenue, it provides access to a neighborhood and to the east it is the main access point for the FDA Campus. Its intersection with New Hampshire Avenue is signalized. The posted speed limit is 25 mph. The east leg of Mahan Road at New Hampshire Avenue provides two exclusive left turn lanes, a shared left/through lane and an exclusive right turn lane.

Most of the road improvements along Cherry Hill Road, New Hampshire Avenue, Powder Mill Road and US 29 have been completed and these roads are open to traffic. Table 13 shows the proposed schedule for other roadway improvements. As the design proceeds, some changes or modifications in the improvements may occur.

b. Analysis of Traffic Conditions

Existing traffic conditions were evaluated at study intersections near White Oak and they are presented in Table 14. It should be noted that existing traffic conditions, as of January 2008, took into consideration the 2,080 FDA employees and contractors working at the FDA Campus.

Analysis was performed using the Critical Lane Analysis Technique as directed by both the Montgomery County and Prince George’s County guidelines. The Critical Lane Analysis outputs a Level of Service (LOS). LOS is described in the Highway Capacity Manual (HCM) as a “qualitative measure describing operational conditions within a traffic stream, and their perception by motorist and/or passengers.” The HCM defines six levels of service ranging from A to F, with A representing the optimal operating conditions with minimal delays and F representing congestion.

The Critical Lane Analysis Technique determines the overall operational LOS for an entire signalized intersection. Unsignalized intersections are assumed to be simple two-phase signalized intersections for the analysis. The analysis examines the combination of vehicular streams with conflicting movement during a peak period. This maximum number of conflicts is termed the

critical lane volume (CLV). This CLV value is then compared to a range of values, to determine the approximate LOS at an intersection.

**Table 13. Scheduled Roadway Improvements**

| IMPROVEMENT                                  | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008     | 2009 | 2010 | 2011 |
|--|------|------|------|------|------|------|----------|------|------|------|
| MD 650 Intersections (SHA)                   |      |      |      |      | OT   |      |          |      |      |      |
| MD 212 @ C. H. (SHA)                         | OT   |      |      |      |      |      |          |      |      |      |
| US 29 @ E. R./C. H. (SHA)                    |      |      |      | OT   |      |      |          |      |      |      |
| Inter-County Connector (SHA)                 |      |      |      |      |      |      | UC       |      |      | OT   |
| Cherry Hill Road Ph 1 (PGCDPWT)              |      | OT   |      |      |      |      |          |      |      |      |
| Cherry Hill Ph 2 Bridge (PGCDPWT)            |      |      |      |      |      |      | UC<br>OT |      |      |      |
| Cherry Hill Ph 2 Road (PGCDPWT)              |      |      |      |      |      |      | UC       | OT   |      |      |
| Cherry Hill @ 47 <sup>th</sup> Av. (PGCDPWT) |      |      |      |      |      |      | OT       |      |      |      |
| Ammendale Road (PGCDPWT)                     |      |      |      |      |      | OT   |          |      |      |      |
| Mahan Road (GSA)                             |      |      |      |      |      |      | UC<br>OT |      |      |      |
| Michelson Road (GSA)                         |      |      |      | OT   |      |      |          |      |      |      |
| Northeast Access (GSA)                       |      |      |      |      |      |      | NTP      |      | OT   |      |

Note: **NTP**=Notice to Proceed; **UC**=Under Construction; **OT**=Open to Traffic  
 Bolded Years - FDA Site improvements/Roadway improvements are complete

Intersections in Montgomery County with a CLV of 1,475 or lower are considered to be operating at an acceptable level of service. Intersections in Prince George’s County with a CLV of 1,600 (LOS E) or lower are considered to be operating at an acceptable level of service. Montgomery County’s standards do not provide breakdowns for LOS A through E. They only provide a CLV limit beyond which the intersection is said to be operating at an unacceptable LOS according to the 2007 *Local Area Transportation Review and Policy Area Mobility Review Guidelines* (M-NCPPC).

With approximately 2,080 employees and contractors working at the FDA Campus, many of the intersections are operating at or below capacity conditions in either or both the AM and PM peak hours. The intersections of US 29/Fairland Road, US 29/Musgrove Road and US 29/Stewart Lane are operating at or above capacity.

The surrounding roadways carry heavy traffic volumes during the peak hours. Three intersections are at unacceptable levels of service and another seven are approaching unacceptable levels (see Table 14). Traffic volumes will increase as more employees shift to the FDA Campus. However, with the construction of the Inter-County Connector (ICC), several of the study intersections are expected to experience a shift in traffic and thus an overall, improvement in LOS.

**Table 14. Existing Levels of Service (2007/2008)**

| Intersection   | AM (CLV)             | PM (CLV)             |
|--|----------------------|----------------------|
| <b>Cherry Hill Road/Powder Mill Road*</b>                    | B (1,128)            | C (1,251)            |
| <b>Cherry Hill Road/Plum Orchard Drive</b>                   | Acceptable (951)     | Acceptable (1,055)   |
| <b>Cherry Hill Road/Calverton Boulevard/Broadbirch Drive</b> | Acceptable (1,101)   | Acceptable (1,419)   |
| <b>Cherry Hill Road/Prosperity Drive</b>                     | Acceptable (1,195)   | Acceptable (1,050)   |
| <b>MD 650/Michelson Road</b>                                 | Acceptable (1,073)   | Acceptable (1,008)   |
| <b>MD 650/Powder Mill Road</b>                               | Acceptable (1,272)   | Acceptable (1,400)   |
| <b>MD 650/Schindler Drive/Mahan Road</b>                     | Acceptable (1,048)   | Acceptable (870)     |
| <b>MD 650/Lockwood Drive1</b>                                | Acceptable (1,223)   | Acceptable (1,207)   |
| <b>Beltsville Drive/Powder Mill Road*</b>                    | B (1,044)            | C (1,299)            |
| <b>Beltsville Drive/Calverton Boulevard*</b>                 | A (797)              | A (846)              |
| <b>US 29 /Fairland Road</b>                                  | Unacceptable (1,591) | Unacceptable (1,769) |
| <b>US 29 /Musgrove Road</b>                                  | Acceptable (1,448)   | Unacceptable (1,593) |
| <b>US 29 N.B. Ramp/Cherry Hill Road</b>                      | Acceptable (875)     | Acceptable (819)     |
| <b>US 29 S.B. Ramp/Cherry Hill Road</b>                      | Acceptable (1,096)   | Acceptable (951)     |
| <b>US 29/ Tech Road</b>                                      | Acceptable (1,448)   | Acceptable (1,460)   |
| <b>US 29/ Industrial Parkway</b>                             | Acceptable (1,343)   | Acceptable (1,396)   |
| <b>US 29/Stewart Lane</b>                                    | Acceptable (1,423)   | Unacceptable (1,681) |
| <b>US 29/ Lockwood Drive</b>                                 | Acceptable (1,475)   | Acceptable (1,448)   |

\*indicates intersections in Prince Georges County

c. Future Roadway Projects

Several roadway projects are either in the planning stage or construction state, which will impact access to the site. With the exception of the InterCounty Connector (ICC), most of the roadway projects are not programmed for construction. Most of these projects will not be completed until after the relocation of all employees, however, some will coincide with the build out date of the FDA Campus. The projects include:

- The ICC will provide a new freeway facility connecting I-270 in Montgomery County and US 1 in Prince George’s County. The ICC will be a limited access, toll facility. This project is under construction and is expected to be completed by 2012. The ICC is expected to have several interchanges including ones with MD 97 (Georgia Avenue), MD 650 (New Hampshire Boulevard), US 29, and I-95. It is also expected to have bicycle paths adjacent to portions of it that will tie into the bicycle path networks in Montgomery and Prince George’s Counties. It is also likely that transit service will be greatly improved due to the ICC construction as buses will be able to use this roadway to get passengers to their destinations much faster.
- I-495 Beltway Improvements: Alternatives for increasing capacity on I-495 including potential managed lanes are being considered by SHA.
- US 29/Tech Road interchange: A grade separated interchange at US 29 is being considered by SHA.

The above improvements will have both positive and negative impacts on transit usage. The construction of the ICC and I-495 will improve congestion on the beltway and could make driving more attractive to employees.

The ICC will provide an east-west highway which will facilitate travel from western Montgomery County to the east and in turn to the FDA Campus. Similarly, the use of tolls and managed lanes may provide opportunities for improved transit service, as well as, encourage carpooling. As these improvements come closer to construction, the ETC will need to coordinate with the employees and local transit agencies to identify potential demands for service.

## 4.2 Public Transportation

The existing public transportation facilities and routes, including Metrorail, commuter rail, buses, and bicycle are shown in Figures 9 through 12. The following describes the transit routes and schedules which serve the FDA Campus.

a. Metrorail System

The Metrorail system connects downtown Washington, DC to the adjoining areas in Maryland and Virginia (Figure 9). The Metrorail operates five lines of which two lines, the red and the green, have

stations within 5 miles of the FDA Campus. Trains operate at seven minute intervals during the peak hours and 12 minutes intervals during the non-peak hours as well as on weekends.

The Metro Red Line operates west of the site, from the Glenmont Station to the Shady Grove Station, in Montgomery County. The Silver Spring Station is the closest station on the red line to the FDA Campus. It is located approximately 3.4 miles from the FDA Campus off of Colesville Road (US 29). Access to the station can be obtained by traveling south on US 29. The Forest Glen and Wheaton Stations are located approximately 4 miles to the west of the FDA Campus.

The Metro Green Line operates east of the site from the Greenbelt Station to the Branch Avenue Station in Prince George's County. Two of the stations along Green Line that are near to the FDA Campus are the Greenbelt Station, located approximately 4.2 miles from the site, and the College Park Station which is located 4.6 miles from the site.

b. MARC Rail System

MARC is a commuter rail system that connects Washington, D.C. to surrounding counties in Maryland and West Virginia. The MARC operates three lines: namely the Brunswick Line, the Camden Line, and the Penn Station Line (See Figure 10).

The MARC Brunswick Line operates from Martinsburg, WV to Union Station in Washington, D.C. This line has a stop at the Silver Spring Metro station and thus is connected to the Metro Red Line. Trains only operate in the eastbound direction in the AM peak hours beginning at 5 a.m. and only operate in the westbound direction in the PM peak hours beginning at 1:45 p.m.

The MARC Camden Line operates from Camden Station in Baltimore, MD, to Union Station in Washington, D.C. The MARC stations near to the FDA Campus include the Muirkirk, College Park, and Greenbelt Stations, with the Greenbelt Station being the closest to the FDA Campus. The College Park and Greenbelt Stations are located at the College Park and Greenbelt Metrorail Stations, respectively. The Camden Line trains run approximately every 30 to 50 minutes during the AM and PM peak period. There are six southbound trains in the AM peak period which start at 5:10 a.m. and stop at 8:15 a.m. and in the northbound direction there are six PM peak period trains beginning at 4:13 p.m. and ending at 7:35 p.m. There are also some mid-day trains in each direction.

The Penn Station Line operates from Perryville, MD to Union Station in Washington, D.C. Most of the trains; however, do not begin in Perryville; instead they operate between the Baltimore/Penn Station and Union Station. The trains start at 4:47 a.m. in the southbound direction and continue until 10:18 p.m. In the northbound direction, trains start at 5:54 a.m. and stop at 10:45 p.m. Trains are more frequent during the AM and PM peak periods; however, there are several mid-day trains, as well.

Commuters have the option of purchasing various combinations of tickets/cards which allow them to use the MARC, Metrorail, and Montgomery County Ride On, MTA, and WMATA buses more cost effectively. For example, they can buy a \$65 MARC Train Link Card (TLC) which allows them to use the Metrorail on an unlimited basis for one month.



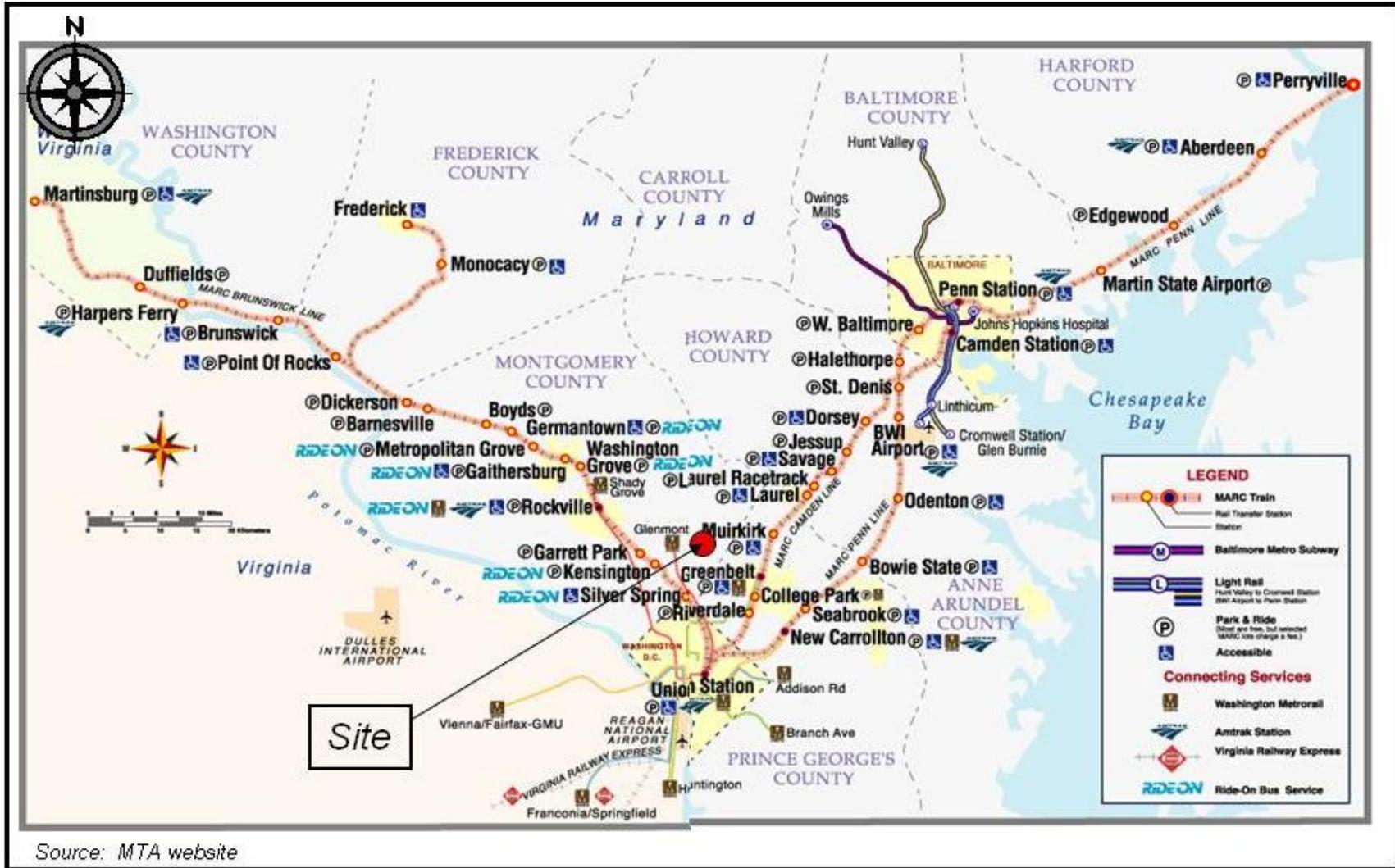


Figure 10. MARC System Map

c. Buses

Several bus routes presently provide service along New Hampshire Avenue and US 29 in the vicinity of the FDA Campus. These routes are shown in Figure 11 and presented in Table 15. GSA and FDA can request for the adjustment of these routes to serve the FDA Campus, if there is sufficient demand. It should also be noted that, bicycle racks are available on all Ride On and Metro busses. The Silver Spring Metrorail Station is considered the primary transit station for the FDA Campus due to the number of buses which use US 29, the proximity of the Silver Spring Metrorail Station to the site, and also the accessibility of the Silver Spring Metrorail Station to the MARC Train System.

A number of meetings have been held with Montgomery County Transit and WMATA to discuss potential transit service to the site. Quarterly meetings are held with all stakeholders to review the status of the improvements and relocations. Transit agencies have indicated a willingness to provide increased services once sufficient demand exists. This enthusiasm for cooperation has led to a significant increase in The Montgomery County Ride On 22 service which connects the Silver Spring Metrorail Station to the FDA Campus. Furthermore, there are also discussions on providing express bus service from Montgomery County.

d. Park and Ride Lots

An inventory of the existing park and ride lots was provided by Montgomery County and is summarized below. On average, there are approximately 4,000 spaces provided at these facilities. As shown in Table 16, a majority of these lots operate below capacity conditions and thus there are approximately 1,540 parking spaces available at these lots. A majority of the lots along the I-270 corridor have approximately 50 percent available capacity. Figure 12 presents the locations of the park and ride lots in Montgomery County. This type of parking availability is very beneficial for carpooling as it will allow small clusters of people to park and share rides.

e. Bicycle/Pedestrian Facilities

Sidewalks are provided along New Hampshire Avenue and Cherry Hill Road. Sidewalks are also provided along Lockwood Drive between US 29 and New Hampshire Avenue. A bicycle lane is provided along New Hampshire Avenue. The Silver Spring Green Bicycle/Hiking Trail ties into downtown Silver Spring and will provide a connection to the Sligo Creek Trail which runs near the FDA Campus. Figure 13 shows bikeways in the vicinity of the FDA Campus.

A sidewalk along US 29, approximately a half mile long between Lorain Avenue and Burnt Mills Shopping Center is expected to be completed this year. The sidewalk will provide FDA employees bicycling and pedestrian connectivity to residential areas to the south of the FDA Campus. The supplemental funding needed to start and complete this project was provided by the Montgomery County Executive and the Montgomery County Council. The completion of the project was actively supported through collaboration between FDA employees and local residents of the adjoining community who articulated the need for the additional funding for the project.

As part of the FDA Campus Master Plan, sidewalks will be constructed on site. Bicycle lanes will be provided on internal campus roadways. Sidewalks will connect thee buildings to parking lots and to New Hampshire Avenue.

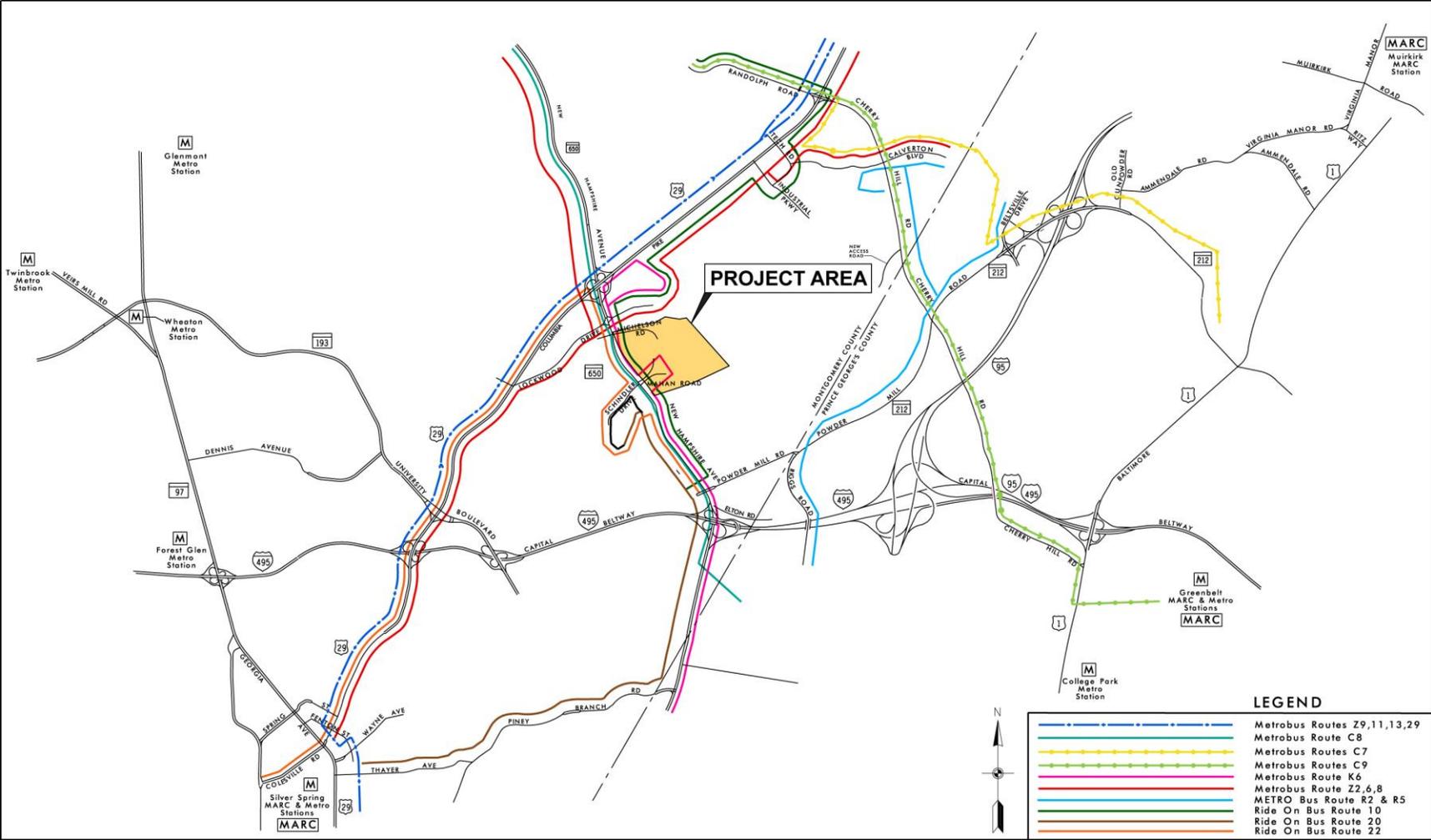


Figure 11. Existing Bus Routes in the vicinity of the FDA Campus

**Table 15. Vicinity Bus Route Detail**

| <b>MetroBus</b>                  |  |                                  |  |   |  |
|----------------------------------|--|----------------------------------|--|---|--|
| <b>Route No.</b>                 | <b>Route Name</b>                      | <b>Closest Metrorail Station</b> | <b>Weekday Peak Hour Frequency (approximate)</b> | <b>First Stop (Closest Metrorail Station)</b> | <b>Last Stop (Closest Metrorail Station)</b> |
| Z2                               | Colesville-Ashton Line                 | Silver Spring                    | 30 min   | 5:59 a.m.<br>12:01 p.m.                       | 11:31 a.m.<br>7:14 p.m.                      |
| Z6                               | Colesville-Westfarm Line               | Silver Spring                    | 30 min   | 5:33 a.m.<br>12:11 p.m.                       | 11:41 a.m.<br>9:47 p.m.                      |
| Z11, Z13                         | Greencastle-Briggs Chaney Express Line | Silver Spring                    | 10-30 min  | 6:21 a.m.<br>3:35 p.m.                        | 8:01 p.m.<br>7:35 p.m.                       |
| Z8                               | Fairland Line                          | Silver Spring                    | 30 min   | 5:21 a.m.<br>12:21 p.m.                       | 11:51 a.m.<br>11:46 p.m.                     |
| Z9, Z29                          | Laurel-Burtonsville Express Line       | Silver Spring                    | 20 min   | 6:11 a.m.<br>4:11 p.m.                        | 6:51 a.m.<br>8:01 p.m.                       |
| K6                               | New Hampshire Avenue-Maryland Line     | Fort Totten                      | 10 - 20 min                                      | 5:03 a.m.<br>12:00 p.m.                       | 11:30 a.m.<br>11:55 p.m.                     |
| R2, R5                           | Riggs Road Line                        | Fort Totten                      | 20 - 40 min                                      | 5:07 a.m.<br>12:39 p.m.                       | 11:59 a.m.<br>10:30 p.m.                     |
| C7                               | Greenbelt – Glenmont Line              | Greenbelt                        | 30 min   | 5:51 a.m.<br>3:05 p.m.                        | 8:35 a.m.<br>6:34 p.m.                       |
| C8                               | College Park – White Flint Line        | College Park                     | 35 min   | 5:32 a.m.<br>12:32 p.m.                       | 11:57 a.m.<br>7:37 p.m.                      |
| C9                               | Greenbelt – Glenmont Line              | Greenbelt                        | 30 min   | 6:02 a.m.<br>3:09 p.m.                        | 7:37 a.m.<br>5:58 p.m.                       |
| <b>Montgomery County Ride On</b> |  |                                  |  |   |  |
| 10                               | Twinbrook Hillandale                   | Glenmont                         | 30 min   | 5:42 a.m.<br>12:12 p.m.                       | 11:42 a.m.<br>10:12 p.m.                     |
| 20                               | Hillandale Silver Spring               | Silver Spring                    | 10-30 min  | 5:33 a.m.<br>12:00 p.m.                       | 11:45 a.m.<br>11:30 p.m.                     |
| 22                               | Hillandale Silver Spring               | Silver Spring                    | 15-30 min  | 5:45 a.m.<br>3:45 p.m.                        | 9:00 a.m.<br>6:45 p.m.                       |

Table 16. Park and Ride Lots

| Lots                      | Capacity     | Average Usage |              |              |              |              |              |
|---------------------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|
|                           |              | 2001          | 2002         | 2003         | 2004         | 2006         | 2007         |
| Briggs Chaney             | 250          | 225           | 157          | 156          | 142          | 154          | 72           |
| Burtonsville              | 388          | 218           | 233          | 230          | 270          | 345          | 354          |
| Colesville/NH             | 180          | 39            | 29           | 28           | 46           | 27           | 22           |
| Comus                     | 32           | 13            | 15           | 15           | 20           | 27           | 19           |
| Germantown Transit Center | 171          | 0             | 16           | 57           | 58           | 171          | 171          |
| Greencastle               | 159          | 5             | 10           | 7            | 54           | 44           | 29           |
| Kingsview                 | 217          | 0             | 0            | 2            | 10           | 30           | -            |
| Lake Forest               | 300          | 207           | 205          | 175          | 118          | 99           | 126          |
| Mid Pike                  | 607          | 273           | 180          | 157          | 205          | -            | -            |
| Milestone                 | 257          | 109           | 126          | 134          | 157          | 192          | 212          |
| Mont. Mall                | 345          | 43            | 29           | 5            | 175          | 166          | 166          |
| Norbeck                   | 248          | 15            | 15           | 17           | 11           | 11           | 14           |
| Tech Road                 | 157          | 49            | 51           | 48           | 55           | 61           | 52           |
| Urbana                    | 193          | 192           | 236          | 269          | 258          | 314          | 343          |
| I-270/MD 124 Lot          | 505          | 192           | 530          | 401          | 208          | 250          | 228          |
| I-270/MD 117              | 368          | -             | -            | -            | -            | 27           | 31           |
| Montrose Rd/MD 355        | 543          | -             | -            | -            | -            | 148          | 108          |
| Germantown MARC           | 676          | -             | -            | -            | -            | 471          | 499          |
| Damascus                  | 51           | -             | -            | -            | -            | 26           | 24           |
| <b>Total</b>              | <b>4,009</b> | <b>1,580</b>  | <b>1,832</b> | <b>1,701</b> | <b>1,787</b> | <b>2563</b>  | <b>2470</b>  |
| <b>% Occupancy</b>        |              | <b>39.4%</b>  | <b>45.7%</b> | <b>42.4%</b> | <b>44.6%</b> | <b>63.9%</b> | <b>61.6%</b> |

Note: “—” indicates a lack of available data

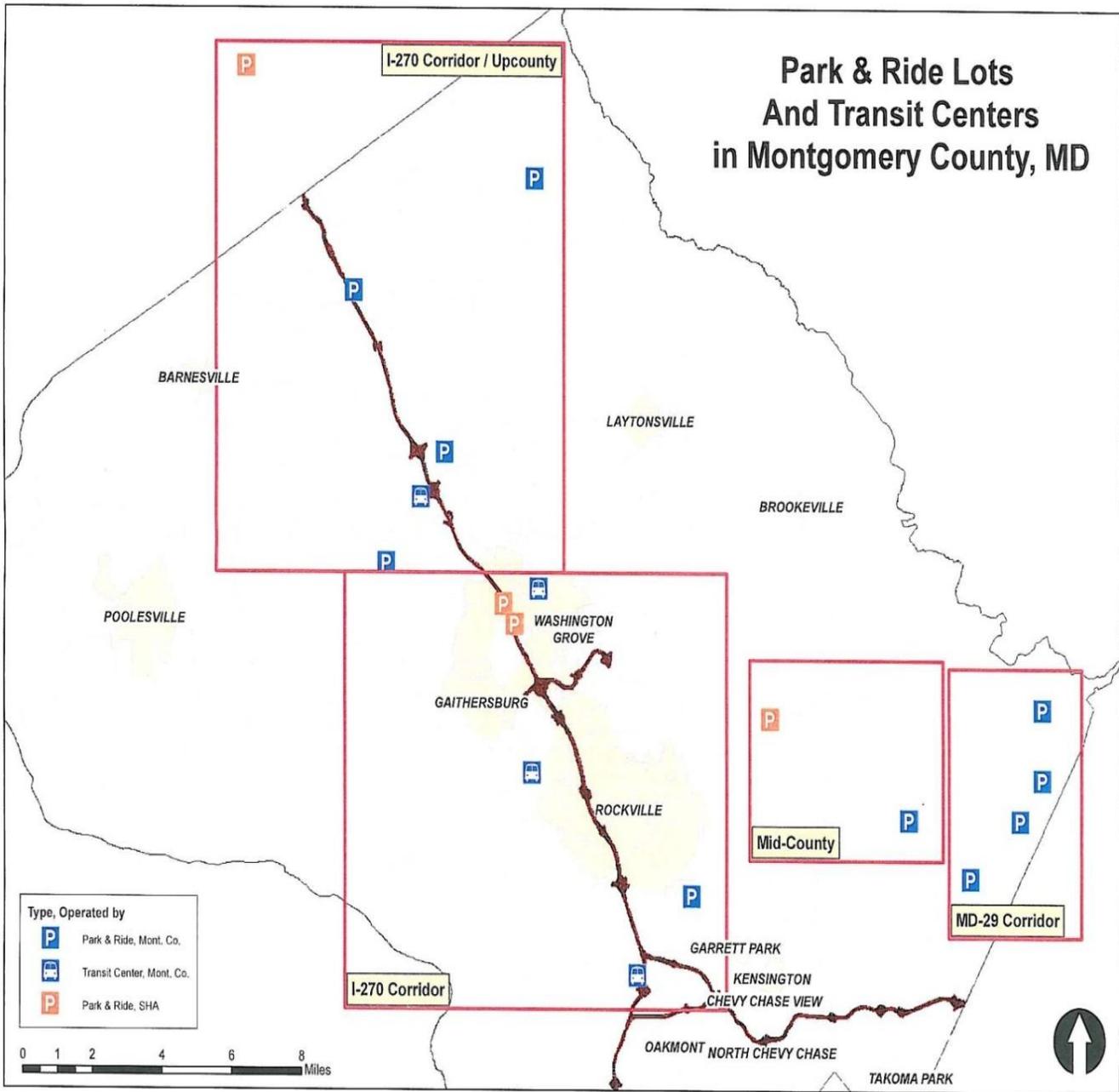


Figure 12. Park-n-Ride Lots

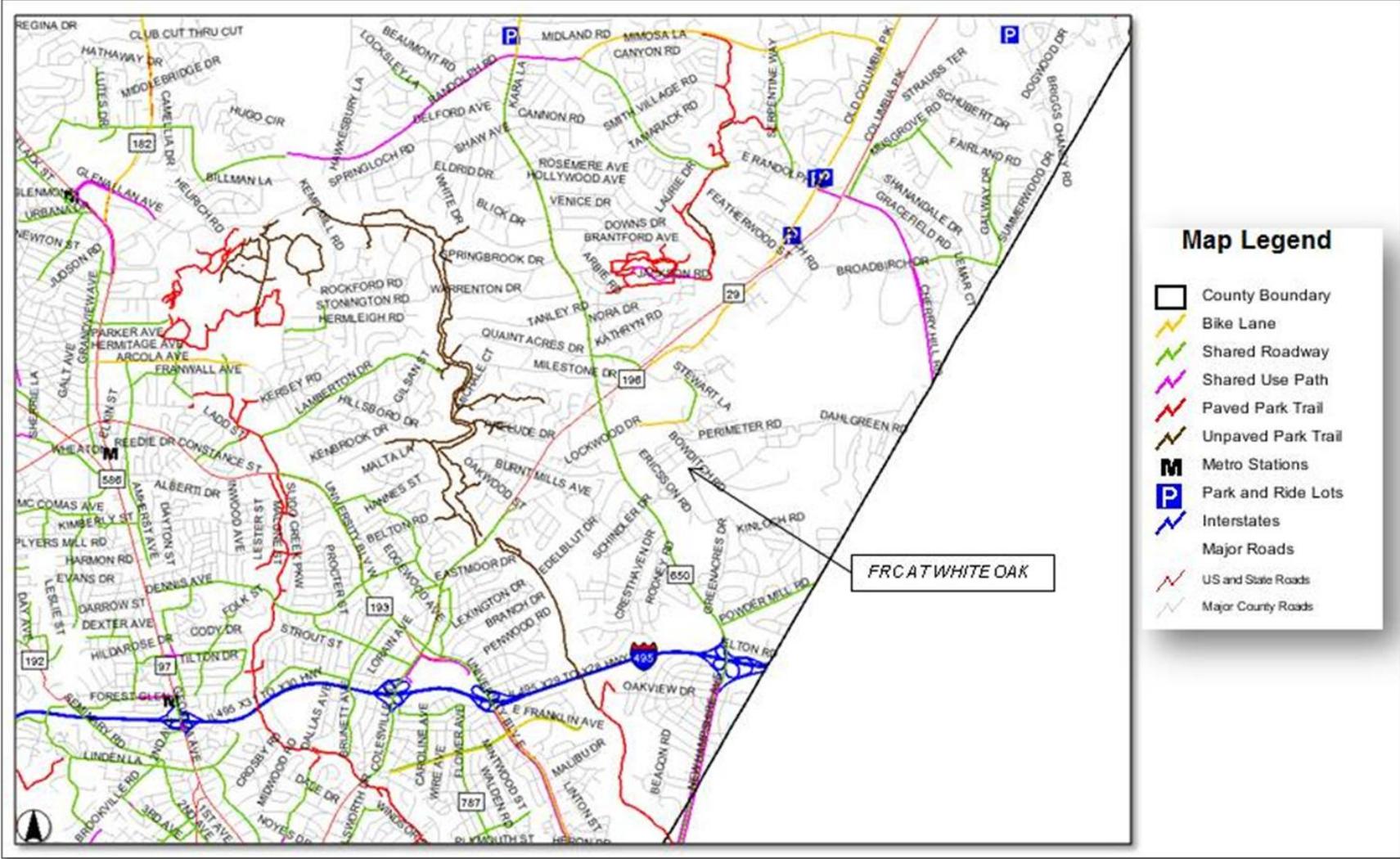


Figure 13. Existing Bikeways

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## 5 PROPOSED TDM STRATEGIES

GSA and FDA have been successful at meeting and/or exceeding several of the key benchmarks of this TMP. They have met or exceeded transit, ridesharing, telecommuting, and biking/walking goals and are aggressively working towards increasing carpool/vanpool use. The employee participation in the telecommuting program is very high at 50 percent and this has helped FDA exceed the parking ratio goal.

In order to continue to increase the parking ratio from the current 1.31 to 1.5 at build out, FDA will continue to make significant aggressive efforts to encourage employees to use the ride share program, on-site shuttle service, and computer matching of employees looking for other carpoolers/vanpoolers in their home area. In addition, FDA will use incentives, such as transit subsidies, guaranteed ride home, and preferred parking for carpools/vanpools to help meet this goal. This will provide many opportunities for FDA employees to use alternative modes of transportation.

People choose their mode of travel based on several factors, with the primary factors being convenience, cost, time, and habit. Any TDM strategy will have to affect one or more of these factors in order for travel patterns to change. The following TDM measures are expected to have an effect on increasing the parking ratio and thus decreasing the single vehicle occupancy numbers:

- Employee Transportation Coordinator - A “champion” for this cause
- Carpool/Vanpool Incentives
- Transit incentives
- Telecommuting Program
- Bicycling/Walk-to-work Incentives

### 5.1 Employee Transportation Coordinator (ETC)

An acting ETC is working to implement the strategies outlined in the 2006 TMP, while a full time ETC is being recruited. The FDA is currently recruiting for a full time employee to be the ETC.

### 5.2 Carpool/Vanpool Incentives

Due to the location of the White Oak Campus, taking transit to and from work can be a laborious process depending on the employee’s home location. Although bus service to the site has improved, transit is still a fairly complicated way to get to work for many employees. Therefore, the TMP will continue to look towards the use of carpools/vanpools, in addition, to other travel modes to meet its parking ratio goals. As more employees relocate, the opportunities for ridesharing will increase as well as the potential for additional transit services.

The primary incentives to reduce single ridership for employees and encourage employees to seek alternative modes of transportation include: financial savings from lowering fuel costs and transit

subsidies; reduced stress from avoiding driving in traffic; and enhanced health from walking or cycling to work.

In order to meet the parking ratio goal of 1:1.5 at full build-out of the FDA Campus, the percentage of employees participating in carpools/vanpools will need to be increased from approximately 9 percent of the employees participating to approximately 20 percent (17 percent in carpools and 3 percent in vanpools) participating. The percentage of employees participating in carpools/vanpools has been adjusted, since the 2006 TMP, based on the survey results of the employees already at the FDA Campus. The results of the survey indicate that not as many people are using carpools/vanpools as was projected due to a lower number of employees that have actually relocated to the FDA Campus than was anticipated making it harder to match employees with each other, onsite construction restrictions, influx of construction related contractors, and higher number of visitors. With the influx of a proposed additional 1,170 employees, the number of people participating in carpools/vanpools is expected to rise as there will be more potential carpool/vanpool matches. Furthermore, with the assignment of preferred parking spaces for carpools/vanpools, employees are expected to be more inclined to use this mode of travel in the future.

It is likely that many of the employees who are participating in the carpool/vanpools will continue to rideshare. As stated in the Federal Transportation Management Program Handbook, conditions “that encourage ridesharing are: having no available car, a long commute, tight parking supply, availability of nearby HOV lanes, limited transit service, high concentration of employees in the general work area, and/or residential concentration of employees.” Many of these conditions exist for the FDA employees. There will be a restricted parking supply, most will have longer commutes, and there will be a large pool of employees who will live and work in the same area. In fact survey results indicate that more employees are using carpools/vanpools since moving to the FDA Campus as compared to before their move. Approximately 6.7 percent of employees were using carpools/vanpools before their move as compared to the approximate 9 percent after moving.

Zip code data collected during the Employee Survey, indicates that a large concentration of employees who have relocated to the FDA Campus live within specific zip codes. Approximately 55 percent of the FDA employees who have moved to the FDA Campus live in zip codes with 20 or more employees. Furthermore, approximately 27 percent of these employees live in zip codes where 50 or more FDA employees reside. There is also a greater concentration of employees slated to relocate to the FDA Campus within certain zip codes. Approximately 40 percent of these employees live in zip codes where 100 or more FDA employees reside. The zip codes with the highest concentration of employees are shown in Table 17.

**Table 17. Zip Codes with largest number of employees**

| Zip codes    | No. of Employees Moving to White Oak | No. of Employees at White Oak | Total No. of employees |
|--------------|--------------------------------------|-------------------------------|------------------------|
| 20878        | 309                                  | 116                           | 425                    |
| 20850        | 245                                  | 78                            | 323                    |
| 20874        | 212                                  | 58                            | 270                    |
| 20852        | 196                                  | 88                            | 284                    |
| 20854        | 177                                  | 92                            | 269                    |
| 20832        | 159                                  | 70                            | 229                    |
| 20853        | 152                                  | 37                            | 189                    |
| 20904        | 117                                  | 49                            | 166                    |
| 20906        | 114                                  | 40                            | 154                    |
| 20814        | 111                                  | 44                            | 155                    |
| 20817        | 107                                  | 42                            | 149                    |
| 20855        | 103                                  | 26                            | 129                    |
| 20879        | 100                                  | 31                            | 131                    |
| <b>Total</b> | <b>2,102</b>                         | <b>771</b>                    | <b>2,873</b>           |

As of November/December 2007, approximately 9 percent of the 1,080 FDA employees at the FDA Campus, or 187 employees, participate in carpools/vanpools. Given the concentration of employees in certain zip codes, it is expected that the carpool/vanpool participation should increase with the help of a strong marketing program.

Thus, if 20 percent of the total FDA employees participate in the either a carpool or vanpool, then the goal of one parking space for every 1.5 employees will be met at build-out. As a greater number of FDA employees move to the FDA Campus, the goal of surpassing the 1 to 1.5 parking ratio and moving towards 1 to 2 parking ratio should be more achievable.

As a proposed additional 1,170 employees are added to the FDA employee roster (new hires), bringing the total population to 8,889, additional opportunities will become available for existing employees as the number of people who may be potential matches increases. Furthermore, flextime, which is open to most FDA employees, will allow employees to make their work schedules fit with each other.

There are several ways FDA will encourage/facilitate employees carpooling/vanpooling:

a. Preferred Parking

As part of the site plan, carpool and vanpool parking spaces will be reserved at locations, which provide more convenient access to the buildings than will be provided for single occupant vehicle spaces. Furthermore, parking spots will be guaranteed for vehicles used for carpooling/vanpooling. Overall, approximately 756 carpool and 89 vanpool spots would need

to be reserved. Due to the phasing of this project, the number of spaces reserved for the preferred carpool/vanpool parking will vary over time and with each phase and will be consistent with the number of carpools/vanpools there are at the FDA Campus. In keeping with the goals and objectives outlined previously, the number of reserved spaces for each phase and year has been estimated and is provided in the next section.

The ETC is responsible for coordinating this program, and ensuring that sufficient parking spaces are set aside for the carpools/vanpools. Furthermore, the ETC is also responsible for having a program to monitor these spaces to ensure that they are being used by registered vehicles used for carpools/vanpools

b. Facilitating Employee Matching

A central list has been created of all the employees interested in carpooling and vanpooling. This list is created via an application which employees fill out. The ETC will match people according to their residential proximity and work schedule.

The ETC will also facilitate the employees meeting each other by organizing the first meeting. This is especially important for the FDA Campus, because there will be a large number of employees, and thus many employees who may potentially match up may not know each other. The ETC will also follow up with FDA employees to determine if the employees are a good fit and/or if new arrangements need to be made.

This will be an iterative process as each batch of employees moving to the FDA Campus will need to be matched with potential carpools/vanpools. Employees interested in this program should be matched prior to their relocation so that they are participating in this program from the start.

c. Employee Leased Vehicles

The ETC will continue to encourage employees to participate in vanpooling. A group of employees can lease a van on a month-to-month basis from a vanpool leasing company. No long-term commitment is required as it operates on a month-to-month basis. The vanpool leasing company usually covers the insurance and regular upkeep of the van. One member of the vanpool usually volunteers to drive and collect the rider's fare. The driver gets personal use of the van and in many groups doesn't have to pay the monthly fee. Furthermore, as stated on the Federal Transit Administration website and verified by the ETC, registered vanpools are eligible for transshare subsidy.

Commuting costs of employees would be reduced and their personal time would be increased. The employees would have time to read, sleep, and/or socialize during the commute. As mentioned previously, the ETC will play a very important role in introducing employees living in the same residential area to each other.

The ETC will continue to identify several vanpool providers and bring them to the FDA Campus for informational sessions. As a next step, using the established database the ETC will identify a cluster of people located within a three-mile radius who are committed to using the van at least three or four days per week.

d. Guaranteed Ride-Home Service

This service allows employees who either use transit, or are non-driving members of a carpool/vanpool, to be able to go home in case of an emergency. The acting ETC has already joined the MWCOG Commuter Connections program. This is a regional program which applies to all employees who commute by any mode other than a single occupancy vehicle. Registration and use of this program is free (with some exceptions). This program guarantees a ride home if an emergency arises or an employee has to work overtime. The ETC will provide information sessions for all the employees who are participating in carpools, vanpools, or taking transit to sign up for this program and use it as needed. When the ETC holds carpool/vanpool group information sessions and will provide this information so that potential carpools and vanpools know that they have an option to get home in an emergency. The ETC will also make it easy for employees to sign up for the guaranteed ride home service by providing registration forms and instructions on filling them out.

e. Shuttle Service/FDA Owned Cars for FDA business

During normal business hours there are shuttles running between the FDA Campus and other FDA sites, as well as to transit facilities. Employees also have access to FDA owned vehicles to make business trips. This allows employees who have business at other sites to be able to take advantage of this service, and not feel the need to bring in their own vehicles.

Approximately 27 percent of the FDA employees at the FDA Campus indicate that they travel for work related purposes outside the FDA Campus and 21 percent indicate that they travel between other FDA buildings. Those employees who are presently using their cars for such travel should cease to do so and perhaps can be persuaded to travel by other means.

### 5.3 Transit Incentives

According to the employee survey conducted in November/December 2007, approximately 9 percent of the FDA employees at the FDA Campus use transit facilities. It is anticipated that in order to meet the goal of the one parking space for every 1.5 employees at the full build out of the FDA Campus, transit use should be approximately 10 percent.

When comparing the primary mode of transportation of those employees who have relocated to the FDA Campus with the mode they used before their relocation, not as many employees are using transit. However, the Employee Survey results indicate, 9 percent of the employees use transit as their primary mode of travel (a combination of Metrorail, commuter rail, and commuter bus) which is an increase over the 2006 TMP goal of having 6 percent of the FDA Campus population using transit. The

ETC will have to continue working to keep the transit usage at 9 percent while striving for 10 percent going forward.

As previously noted in Table 1, a majority of the FDA employees (those who have relocated to FDA Campus and those who are relocating) reside in Montgomery County. Many of the employees residing in Montgomery County may take the Red Line of the Washington Metrorail System. Because the Red Line travels through Washington, DC, it adds approximately 30 minutes to the employees commute time. It is estimated that employees who take the Metro and then a bus to reach the FDA Campus will be spending approximately 1.5 hours commuting each way. Taking a direct bus, such as the ones from the Fort Totten Station, might be a more attractive option as this is only expected to take between 40 to 45 minutes.

As noted in Table 17, there are 13 zip codes which will have more than 130 employees of the FDA Campus residing within them. Through coordination with WMATA and Montgomery County Transit, it may be possible to provide express bus service from park-n-ride lots near these zip codes directly to the FDA campus. See Section 5.3.g for further discussion on express buses from these zip codes.

The following provides a list of transit incentives to encourage FDA employees to use transit.

a. Transit Subsidy

Transit subsidies will continue to be paid to eligible employees as allowed by the Federal Government under applicable law to cover employee-commuting costs to the FDA Campus. Based on the survey, approximately 9 percent of the employees who are at the FDA Campus receive transit subsidies. Of the employees who are slated to move to the FDA Campus, approximately 11 percent receive a transit subsidy. Approximately 604 FDA employees collect transit subsidy and a majority of these employees receive the full amount of \$230.

It is anticipated that this incentive, combined with preferred parking and longer travel distances, will encourage increased demands for transit service.

b. Shuttle Service

The FDA provides three shuttles: one from the Silver Spring Metrorail Station, one from College Park Metrorail Station, and one from the Twinbrook Metrorail Station. At the FDA Campus, a circulator shuttle within the campus connects all buildings within the campus to each other.

The College Park and Silver Spring Metrorail stations tie into the regional MARC rail system. The Camden line of the MARC ties into the College Park Station and the Brunswick line ties in at the Silver Spring Station. Thus, by providing shuttle service from these stations, the employees from Baltimore County, outer Montgomery County, Frederick County, and West Virginia are tied into the Surface Rail Transportation System enabling them to make their trips to the White Oak site by rail. Table 18 provides the current shuttle schedule from the Rockville area which includes the Twinbrook Station and Parklawn. Similarly, shuttle service is also provided from the College Park and Silver Spring Metrorail stations to White Oak. Tables 19 and 20 show the current shuttle service schedule.

Peak hour trips are not made to the Silver Spring Metrorail station by the shuttles because Ride On 22 provides 20 trips to and from the Silver Spring station to White Oak. However, during the mid-day, when Ride On 22 trips are less frequent, the shuttle service is designed to switch over to accommodate employees needing access to the Silver Spring Metrorail station. Montgomery County has increased the frequency of the Ride On 22 route from only 8 trips to the current 20 trips per day.

The shuttle has also increased its ridership significantly. On average, as of May 2008, approximately 245 employees use the White Oak – Rockville (Twinbrook Metrorail Station) route and 75 employees use the White Oak – College Park – Silver Spring (College Park and Silver Spring Metrorail Stations) route. Of the employees who are working at the FDA Campus, approximately 14 percent indicated that they use the FDA Shuttle. As can be seen by the actual ridership numbers, a majority of the survey respondents indicated that they use the White Oak to Rockville route.

The survey results indicate that the current shuttle bus users would like to see the following improvements:

- Increase the frequency of service
- Increase the hours of operations of the Shuttle
- Better coordination with employee work schedules because with the current shuttle bus schedule, they find it difficult to work an 8 hour day.
- Solution to the overcrowding of the 4:25 p.m. shuttle from White Oak to Rockville

These results combined with the shuttle ridership numbers and several comments made by the shuttle bus riders, indicate that an express bus from the Rockville/Germantown area to the FDA Campus may be a prudent idea. This will be discussed further in the following sections.

Table 18. Shuttle Service (White Oak-Rockville)

| Stop              | Arrival time | Departure Time |
|-------------------|--------------|----------------|
| Twinbrook Metro   | 6:00 a.m.    | 6:10 a.m.      |
| Parklawn Building | 6:15 a.m.    | 6:20 a.m.      |
| White Oak Site    | 6:55 a.m.    | 7:10 a.m.      |
| Twinbrook Metro   | 7:45 a.m.    | 7:55 a.m.      |
| Parklawn Building | 8:00 a.m.    | 8:05 a.m.      |
| White Oak Site    | 8:40 a.m.    | 8:55 a.m.      |
| Twinbrook Metro   | 9:30 a.m.    | 9:40 a.m.      |
| Parklawn Building | 9:45 a.m.    | 9:50 a.m.      |
| White Oak Site    | 10:15 a.m.   | 10:30 a.m.     |
| Twinbrook Metro   | 10:55 a.m.   | 11:05 a.m.     |
| Parklawn Building | 11:10 a.m.   | 11:15 a.m.     |
| White Oak Site    | 11:40 a.m.   | 12:10 p.m.     |
| Twinbrook Metro   | 12:35 p.m.   | 12:45 p.m.     |
| Parklawn Building | 12:50 p.m.   | 12:55 p.m.     |
| White Oak Site    | 1:20 p.m.    | 1:35 p.m.      |
| Twinbrook Metro   | 2:00 p.m.    | 2:10 p.m.      |
| Parklawn Building | 2:15 p.m.    | 2:20 p.m.      |
| White Oak Site    | 2:45 p.m.    | 3:00 p.m.      |
| Twinbrook Metro   | 3:25 p.m.    | 3:35 p.m.      |
| Parklawn Building | 3:40 p.m.    | 3:45 p.m.      |
| White Oak Site    | 4:10 p.m.    | 4:25 p.m.      |
| Twinbrook Metro   | 5:00 p.m.    | 5:10 p.m.      |
| Parklawn Building | 5:15 p.m.    | 5:20 p.m.      |
| White Oak Site    | 5:55 p.m.    | 6:15 p.m.      |
| Twinbrook Metro   | 6:50 p.m.    | n/a            |

**Table 19. Shuttle Service (White Oak-College Park)**

| <b>Stop</b>        | <b>Arrival time</b> | <b>Departure Time</b> |
|--------------------|---------------------|-----------------------|
| College Park Metro | 6:00 a.m.           | 6:10 a.m.             |
| Wiley Building     | 6:15 a.m.           | 6:20 a.m.             |
| White Oak Site     | 6:50 a.m.           | 7:05 a.m.             |
| College Park Metro | 7:35 a.m.           | 7:45 a.m.             |
| Wiley Building     | 7:50 a.m.           | 7:55 a.m.             |
| White Oak Site     | 8:25 a.m.           | n/a                   |
| White Oak Site     | 10:35 a.m.          | 10:50 a.m.            |
| College Park Metro | 11:10 a.m.          | 11:20 a.m.            |
| Wiley Building     | 11:25 a.m.          | 11:30 p.m.            |
| White Oak Site     | 11:50 p.m.          | n/a                   |
| White Oak Site     | 2:10 p.m.           | 2:25 p.m.             |
| College Park Metro | 2:45 p.m.           | 2:55 p.m.             |
| Wiley Building     | 3:00 p.m.           | 3:05 p.m.             |
| White Oak Site     | 3:25 p.m.           | 3:40 p.m.             |
| College Park Metro | 4:00 p.m.           | 4:10 p.m.             |
| Wiley Building     | 4:15 p.m.           | 4:20 p.m.             |
| White Oak Site     | 4:40 p.m.           | 4:55 p.m.             |
| College Park Metro | 5:15 p.m.           | 5:25 p.m.             |
| Wiley Building     | 5:30 p.m.           | 5:35 p.m.             |
| White Oak Site     | 5:55 p.m.           | 6:15 p.m.             |
| College Park Metro | 6:35 p.m.           | n/a                   |

**Table 20. Shuttle Service (White Oak-Silver Spring)**

| Stop                | Arrival time | Departure Time |
|---------------------|--------------|----------------|
| White Oak Site      | 8:25 a.m.    | 8:40 a.m.      |
| Silver Spring Metro | 9:00 a.m.    | 9:10 a.m.      |
| White Oak Site      | 9:40 a.m.    | 9:55 a.m.      |
| Silver Spring Metro | 10:10 a.m.   | 10:20 a.m.     |
| -                   | -            | -              |
| White Oak Site      | 11:50 p.m.   | 12:20 p.m.     |
| Silver Spring Metro | 12:40 p.m.   | 12:50 p.m.     |
| White Oak Site      | 1:10 p.m.    | 1:25 p.m.      |
| Silver Spring Metro | 1:45 p.m.    | 1:55 p.m.      |
| White Oak Site      | 2:10 p.m.    | n/a            |

c. Guaranteed Ride-Home Service

As mentioned previously, this service would allow employees who either use transit or are non-driving members of a carpool/vanpool to be able to go home in case of an emergency. The acting ETC is exploring various options for this program.

d. On-Site Passes

Transit passes are sold at the FDA Campus so that employees can make their purchase at their convenience. The ETC will set up a central location to purchase these and will provide announcements and posters to inform employees of the availability of these passes.

e. On-Site Transit Stop

An on-site transit stop has been provided on the FDA Campus, which is currently located in the circle of Building 1. Buses will be diverted to this stop so that employees would be able to conveniently board the buses. This combined with the on-site circulator bus would provide employees better and faster access to buses by reducing their walking time to and from their offices. Thus they would be more inclined to use transit.

f. Coordination with Other Agencies

The acting ETC has been working with the local agencies to reroute/divert buses onto the FDA Campus. Furthermore, these efforts have increased the Ride On 22 bus service from only 8 trips when the FDA employees started relocating to FDA Campus to over 20 trips as of May

2008. The survey results however indicate that the Ride On 22 service is not very reliable. The ETC will work with the Montgomery County Transit staff to determine how to address this issue.

g. Express Bus Service

The results of the survey and the geographical location of most of the relocated and yet to be relocated employees indicate that express buses from several areas in Montgomery County to the FDA Campus may be feasible. Montgomery County Transit and WMATA have indicated that they would be willing to discuss alternative express bus services should the demand arise. The cost to ride on the express bus would likely range from \$5 to \$10 per direction per day. The clustering of the FDA employees and the demand for increased shuttle bus service from the Rockville area to the FDA Campus indicates that there would be demand for an express bus. Furthermore, over 50 percent of the employees who have already relocated to the FDA Campus stated that they would take an express bus service from a park and ride lot near their home to the FDA Campus.

As shown previously, there are a number of park and ride lots in Montgomery County and a majority of them have excess capacity. There are seven park and ride lots along the I-270 corridor. Table 21 presents the driving time from several zip codes to the closest park and ride lots.

**Table 21. Potential Express Bus Service Locations**

| Zip Code | No. of Employees in Zip Code | Closest Park-n-Ride Lot | Available Parking Space* | Distance from Zip Code to Park n-Ride Lot (minutes) |
|----------|------------------------------|-------------------------|--------------------------|---|
| 20878    | 425                          | MD 124 & I-270          | 277                      | 5.5   |
| 20850    | 323                          | MD 124 & I-270          | 277                      | 6.5   |
| 20874    | 270                          | Kingsview P & R**       | 187                      | 2.5   |
| 20852    | 284                          | Midepike Plaza***       | 402                      | 0.5   |
| 20854    | 269                          | Montgomery Mall TC      | 179                      | 6   |
| 20832    | 229                          | Norbeck Road            | 234                      | 3.5   |
| 20853    | 189                          | Norbeck Road            | 234                      | 2   |
| 20814    | 155                          | Montgomery Mall TC      | 179                      | 3.5   |
| 20817    | 149                          | Montgomery Mall TC      | 179                      | 2.5   |
| 20855    | 129                          | Lake Forest             | 174                      | 5   |
| 20879    | 131                          | Lake Forest             | 174                      | 2.5   |

\* Capacity minus average usage in 2007

\*\* Average usage data used is from 2006

\*\*\* Average usage data used is from 2004

Thus, express bus service can be potentially offered from the MD 124 & I-270, Kingsview, Montgomery Mall TC, Norbeck Road, and Lake Forest park and ride lots. These lots are within 5 to 6 miles of most of the zip codes with a high concentration of FDA employees. Most of the park and ride lots have parking spaces available and should be able to accommodate the FDA employees.

It should be noted that once the ICC is completed, express buses can use this roadway and should be able to provide FDA employees with considerable time savings. In fact, the ICC Effects on Transportation Report (SHA) shows that the average relative time savings when traveling from Gaithersburg to White Oak during the AM peak hours is expected to be approximately 10 minutes and during the PM peak hours is expected to be approximately 20 minutes.

**5.4 Telecommuting Program**

FDA employees have a high level of participation in telecommuting. In fact, it appears that approximately 50 percent of employees telecommute at least one day a week. Table 22 presents the current telecommuting patterns.

**Table 22. Telecommuting Patterns**

| Telecommuting Days | Employees at White Oak Campus | Employees Who will Move to White Oak Campus |
|--------------------|-------------------------------|---|
|                    | % of Employees                | % of Employees                              |
| Monday             | 14.1%                         | 14.9%                                       |
| Tuesday            | 26.0%                         | 21.3%                                       |
| Wednesday          | 20.4%                         | 13.7%                                       |
| Thursday           | 24.9%                         | 23.3%                                       |
| Friday             | 51.3%                         | 27.0%                                       |

**5.5 Bicycling/Walk-to-Work Incentives**

Employees living in close vicinity of the FDA Campus will be encouraged to walk-to-work or bicycle to work. It is possible that some of the employees may move closer to the FDA Campus, and/or that the new hires will either be from the surrounding area or will move closer to the work site. In such cases, employees who live within a 3-mile radius will be encouraged to either walk or bike to work. The acting ETC has been working with the architects of the FDA Campus to provide locker and shower facilities on site. Sheltered bicycle racks are also being provided at all buildings so that employees will have the ease of parking their bicycles in front and Bike Repair Boxes have also been provided at two locations to allow bicyclists fix flat tires on site. Furthermore, the internal roadways are being designed to be bicycle and pedestrian friendly. They also provide a \$20/month subsidy for bicyclists who commute on bike at least 40 percent of the time.

## 6 IMPLEMENTING THE TRANSPORTATION DEMAND MANAGEMENT (TDM) STRATEGIES

As mentioned previously the ETC is extremely important to the success of the TMP. The ETC will be responsible for implementing, evaluating, and monitoring the TMP.

Because the FDA buildings will be constructed and thus occupied in different years, the TMP goals will be different during each phase. As the number of FDA employees increases at the FDA Campus, the possibility of employees finding carpooling, vanpooling, and telecommuting partners should increase and thus with each phase the nature and success of the strategies will change.

The relocation of the employees is scheduled to occur over the next four years. The number of employees and years of occupation are found in Table 23.

**Table 23. Employee Phasing**

| Buildings   | Department                     | Completion Date | Employees in year | Total Employees at White Oak |
|---|--------------------------------|-----------------|-------------------|------------------------------|
| Life Sciences Lab & Vivarium Phase I                                  | CDER & CDRH                    | 2003            | 99                | 99                           |
| Office Buildings  | CDER                           | 2005            | 1,765             | 1,864                        |
| Central Shared Use  |                                | 2006            | 83                | 1,947                        |
| Engineering & Physics Laboratory                                      | CDRH                           | 2007            | 133               | 2,080                        |
| Office Buildings  | CDER, OC, CDRH                 | 2008            | 1,075             | 3,155                        |
| Office Buildings  | CDRH & CDER, OC                | 2009            | 2,470             | 5,625                        |
| Distribution Facility   | OC                             | 2010            | 40                | 5,665                        |
| Office Buildings & Daycare Facility                                   | OC                             | 2011            | 501               | 6,166                        |
| Life Sciences Lab & Vivarium Phase II;<br>Office Buildings; TV Studio | CBER, CDER, CBER,<br>CVM, CDRH | 2012            | 2,723             | 8,889                        |

In implementing the TMP, the strategies will need to be phased to coincide with the relocation of employees. This will include limiting the parking spaces available during the initial phases to encourage carpool/transit usage from the outset. During construction of the FDA Campus, it has been difficult to limit parking and to determine an exact ratio of employees/parking provided due to the construction activity on site. As the construction activity on the campus decreases or is moved to locations farther away from the already constructed buildings/parking structures, it will become easier to control the amount of parking provided.

As parking will be provided in parking structures which must be constructed at one time, the employee to parking ratio will vary from the staging plan. These additional spaces may be set aside or designated for carpools. At the outset of the relocation, the number of parking spaces per employee will be greater as the opportunities to use other modes will be limited. As more employees are relocated, the ability to match carpools and provide transit services increases, thereby reducing the need for parking. Table 24 presents the mode split ratio goals for each phase and year. The following is a suggested implementation plan:

### **6.1 Implementation Plan**

As of May 2008, there were approximately 2,080 FDA and contractor employees working at the FDA Campus with 1,600 parking spaces provided. Some of these spaces have been designated as carpool/vanpool spaces.

As the additional employees are relocated to the FDA Campus, steps will be taken to ensure that they maintain their current travel modes and some single occupancy vehicle users shift modes. The most aggressive efforts will be made as each department is about to move to the FDA Campus as that is the time that employees are likely to be susceptible to mode change and will be looking for ways to travel to their new office location. The ETC must provide these employees with viable alternative modes of travel to the new site.

The biggest jump in employees is expected to be 2009 (2,470 employees) and then in 2012 (2,723 employees). As each group of employees move, the following actions will be carried out:

a. Employee Transportation Coordinator (ETC)

The ETC will work with the relocated employees prior to moving to identify ride sharing and transit opportunities. The ETC will develop a package for distribution to all employees and perspective hires showing transit routes. The ETC is located within a centralized location within the FDA Headquarters at White Oak where all transportation information is located and easily available to employees. The acting ETC has also set up a site on the FDA intranet so that employees can access transportation information online.

b. Carpooling

- Identify potential carpool clusters for employees are interested in carpooling.
- Hold meetings for these carpools and help them identify meeting spots and resolve any potential issues.
- Stress that parking would be provided for each carpool vehicle and that the parking would be close to the building entrances.

**Table 24. Mode Split Goals**

|  | 2003     | 2007        |                | 2008        |                | 2009        |                | 2010        |                | 2011        |                | 2012        |                |     |       |       |     |       |       |
|--|----------|-------------|----------------|-------------|----------------|-------------|----------------|-------------|----------------|-------------|----------------|-------------|----------------|-----|-------|-------|-----|-------|-------|
|  |          | No. of Emp. | Parking Spaces |     |       |       |     |       |       |
| No. of emp. in each year   |          | 133         |                | 1,075       |                | 2,470       |                | 40          |                | 501         |                | 2,723       |                |     |       |       |     |       |       |
| No. of total employees   | 99       | 2,080       | 2,080          | 3,155       | 3,155          | 5,625       | 5,625          | 5,665       | 5,665          | 6,166       | 6,166          | 8,889       | 8,889          |     |       |       |     |       |       |
| Carpool  |          | 8%          | 166            | 83          | 9%             | 284         | 142            | 12%         | 675            | 338         | 12%            | 680         | 340            | 14% | 863   | 432   | 17% | 1,511 | 756   |
| Vanpool  |          | 1%          | 21             | 7           | 1%             | 32          | 11             | 2%          | 113            | 38          | 2%             | 113         | 38             | 2%  | 123   | 41    | 3%  | 258   | 86    |
| transit  |          | 9%          | 187            | 0           | 10%            | 316         | 0              | 10%         | 563            | 0           | 10%            | 567         | 0              | 10% | 617   | 0     | 10% | 889   | 0     |
| telecommuting*   |          | 7%          | 146            | 0           | 9%             | 284         | 0              | 10%         | 563            | 0           | 10%            | 567         | 0              | 10% | 617   | 0     | 10% | 880   | 0     |
| walk/bike/dropped off  |          | 1%          | 21             | 0           | 1%             | 32          | 0              | 1%          | 56             | 0           | 1%             | 57          | 0              | 1%  | 62    | 0     | 1%  | 89    | 0     |
| absent   |          | 2%          | 42             | 0           | 2%             | 63          | 0              | 2%          | 113            | 0           | 2%             | 113         | 0              | 2%  | 123   | 0     | 2%  | 178   | 0     |
| total no. of employees (other means)   |          |             | 582            | 90          |                | 1,010       | 152            |             | 2,081          | 375         |                | 2,096       | 378            |     | 2,405 | 473   |     | 3,804 | 841   |
| SOV  | 99       |             |                | 1498        |                |             | 2,145          |             |                | 3,544       |                |             | 3,569          |     |       | 3,761 |     |       | 5,085 |
| total No. of parking needed  | 99       |             |                | 1588        |                |             | 2,298          |             |                | 3,919       |                |             | 3,947          |     |       | 4,234 |     |       | 5,926 |
| Parking ratio  | <b>1</b> | <b>1.31</b> |                | <b>1.37</b> |                | <b>1.44</b> |                | <b>1.44</b> |                | <b>1.46</b> |                | <b>1.50</b> |                |     |       |       |     |       |       |
| * Although the survey results indicate a higher participation rate - we have assumed a lower percentage in order to take a conservative approach |          |             |                |             |                |             |                |             |                |             |                |             |                |     |       |       |     |       |       |

c. Vanpooling

- As more employees get ready to move to the FDA Campus, provide information on vanpool leasing companies for vanpoolers.
- Hold a brown bag lunch session for these relocated employees and provide them with vanpooling information.
- Based on employee zip codes/addresses, identify clusters of employees and hold meetings with these clusters to introduce them to vanpooling.
- Stress the fact that the vans would lower their commuting costs.
- Stress that parking for vans would be guaranteed and that the parking would be conveniently located.

d. Transit

- Provide bus schedules and routes for employees especially from the Silver Spring Station to the site and the FDA shuttle service schedule. The ETC will work with Montgomery County to evaluate the need for additional service.
- Include in FDA budget, reimbursement to employees of up to the maximum amount provided by FDA per month for using transit.
- Advertise the reimbursement amount to the FDA employees via e-mail, flyers etc.
- Provide and display transit information including maps of routes, schedules, fares etc. at a central location.
- Distribute flyers about the transit option via e-mails, newsletters, pamphlets, and through scheduled meetings.
- FDA maintains a fleet of government cars. These cars are to be used by employees on official business outside the FDA Campus. The ETC should make sure all employees are aware of these vehicles and that they can use these vehicles when they need to travel off campus for work purposes.

e. Shuttle Service

- As indicated in Table 11, a goal of getting 10 percent of the total number of employees to use transit has been set. Considering that approximately 9 percent of the FDA employees who have already moved to the FDA Campus are using transit, the goal of 10 percent is achievable. Efforts must be made to make sure that the transit use is kept at this high level. The shuttle service plays a key role in maintaining a high level of transit ridership. Improvements to the shuttle service are already in process and should be implemented in the coming year. These include:
  - Increase the frequency of shuttle service during the morning and evening peak hours as funds become available.

- Extend the hours of the shuttle service such that they coincide with the working hours of most of the FDA employees.
  - Provide more shuttles from FDA between 4:30 p.m. and 5:30 p.m., as funds become available. If/when an express bus is started from FDA to Rockville area, this schedule can be modified.
- With the provision of a shuttle service, which is able to service the FDA employees adequately, we believe that the overall transit ridership will be higher and thus the goal of eventually reaching one parking space for every two employees will be achieved.
- f. Telecommuting
- Develop a training program to provide potential telecommuters and their managers with the goals, objectives, and guidelines of the program.
  - Introduce the telecommuting option to managers and ask them to identify any jobs that they think can be accomplished via telecommuting.
  - Hold meetings with potential telecommuters and introduce telecommuting to them.
- g. Bicycling/Walking
- Provide conveniently located showers and lockers
  - Provide a bicycle route map
  - Provide covered bicycle parking in close proximity to buildings so that employees can feel safe leaving their bicycles.

As each phase is completed, the ETC will need to reassign parking so that all employees have an equal chance of obtaining a parking space. The steps outlined above will need to be carried out with the completion of each phase.

## 6.2 FDA TMP Commitments

FDA is committed to reducing the number of vehicles that will travel to the site. The acting ETC has been working with employees who have already been relocated and/or are about to be relocated to meet this commitment. In order to meet its commitment FDA has accomplished the following:

- FDA maintains a shuttle service between the FDA Campus and several surrounding Metrorail stations.
- A new shuttle circulator has started within the FDA Campus so that employees can reach their office more conveniently.
- The acting ETC has been involved in getting increased frequency of bus service to the FDA Campus as well as increasing bicycle route connectivity to the site.

Quarterly meetings are being held with transit agencies to ensure transit service is available and enhanced as employees begin the relocation process. On site transit stops are being incorporated into the design of the facility.

### 6.3 FDA TMP Parking Management

The proposed 2009 Master Plan provides a total of 6,926 parking spaces on the FDA Campus, with 5,926 spaces for FDA employees and 1,000 spaces for visitors. The following summarizes how parking spaces will be assigned and managed for each group:

**FDA Employees:** 5,926 parking spaces will be provided for FDA employees. This number is derived from the parking ratio of two parking spaces per three employees for a total of 8,889 total employees on the site. These parking spaces are located within the perimeter fence in parking garages and on surface lots. Employees will be issued parking passes that will allow them access to employee parking areas but not to visitor parking areas.

**Infrequent Visitors:** 585 parking spaces will be provided in the northwest parking garage of the campus, outside of the perimeter fence. These spaces will be available for visitors to the campus arriving without prior screening or authorization. Visitors parking here will approach the campus on foot or campus shuttle bus after passing through a remote visitors' screening pavilion located adjacent to the visitors' parking lot.

**Frequent Visitors:** 415 parking spaces will be provided for frequent visitors to the FDA Campus distributed throughout the campus, in parking garages and surface lots within the perimeter fence. These visitor parking spaces will be clearly marked for visitors only and will not be available for FDA employees at White Oak. These frequent visitors are typically industry representatives or other outside visitors that meet on a regular basis with FDA staff at White Oak and will have been screened and received authorization prior to arriving on the site. These pre-screened and authorized visitors will receive special badges allowing them limited security clearance and special passes for parking in the visitor parking areas within the perimeter fence.

All parking assignments will be managed and monitored by FDA staff and will be enforced by the Federal Protective Service.

### 6.4 Visitor Parking

The *2006 White Oak Master Plan Update* calls for 500 visitor parking spaces at the build-out of the FDA Campus by 2012. Recent FDA visitor parking demand has indicated that this will prove to be an inadequate number of parking spaces. With a 600 seat conference/training room and various other meeting rooms, there will be a number of major conferences and training sessions on the campus which will attract the general public and employees from other offices as well as other attendees. The nature of the FDA visitor is such that they will either be staying the whole day or a majority of the day. Many FDA visitors will also attend day-long conferences/meetings on the FDA Campus. Therefore, only one or two visitors will use each parking space on a given day.

FDA would like to provide 500 additional visitor parking spaces, bringing the total number of visitor parking to 1,000 spaces. The sections below provide some background as well as outline several key characteristics of the FDA visitor and the FDA visitor related activities.

a. Existing Conditions

As of May 2008, 2,080 FDA employees and contractors are working at the FDA Campus, of which 190 are service contractors in the cafeteria, mailroom, security etc. The FDA Campus includes a White Oak Conference Center facility which provides meeting and training rooms and can accommodate up to 600 people.

FDA provides approximately 275 visitor parking spaces (or 13 percent of the population). On several occasions the demand for visitor parking has substantially exceeded the capacity and FDA has had to scramble to find additional parking spaces. For the purposes of accurately accounting for visitor parking demand, FDA has started collecting visitor data to determine the usage of the visitor parking facility. Visitor data was collected for six weeks beginning November 18, 2007 and ending March 8, 2008. A copy of data sheets are attached in Appendix B. Figure 14 presents the number of visitors during this week.

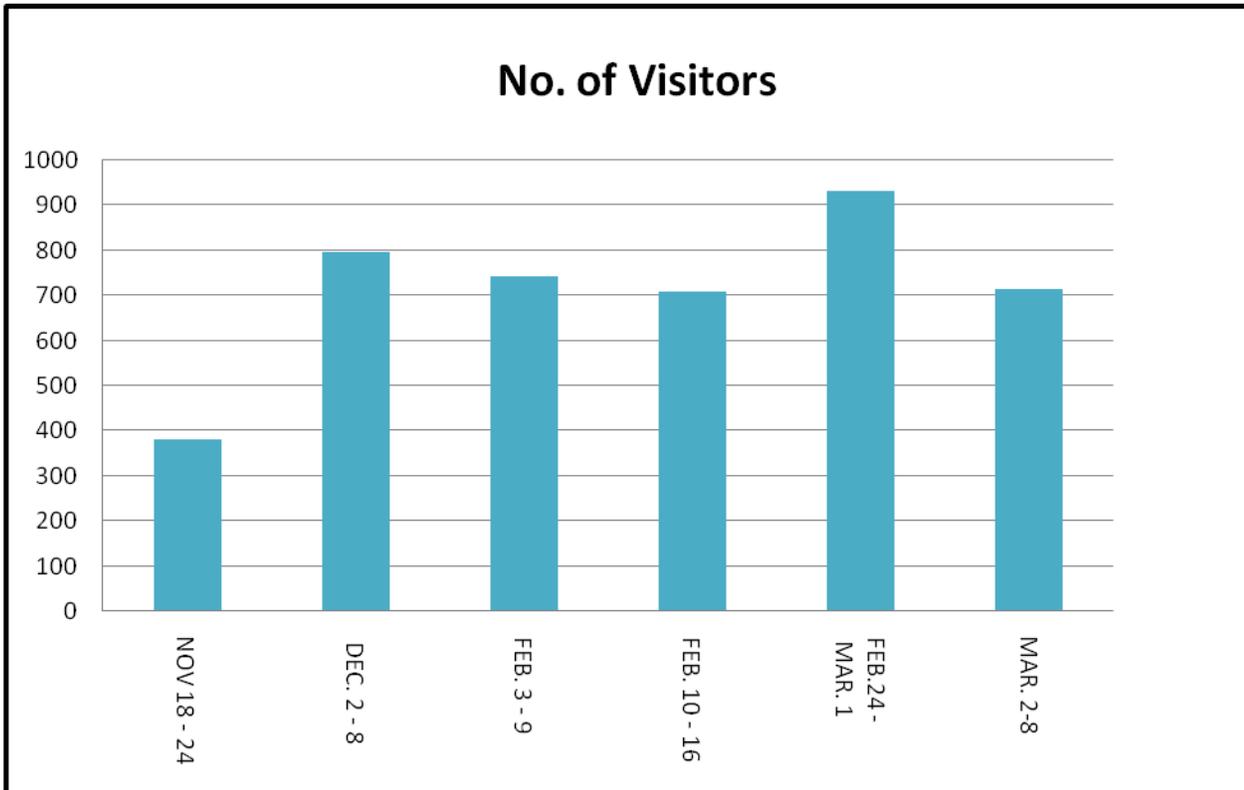
As can be seen from Figure 14, visitors ranged from 710 to 930 per week between November 2007 and March 2008. The number of visitors in the week of November 18 to 24 was much lower due to it being a holiday weekend. February 24 to March 1 had the highest number of recorded visitors with almost 930 people visiting in one week.

During the last week of February 2008, 247 people visited the FDA Campus on a single day. Figure 15 presents the number of visitors during this week in February which had the highest number of visitors. These days coincided with conferences/and or special events that took place at that time.

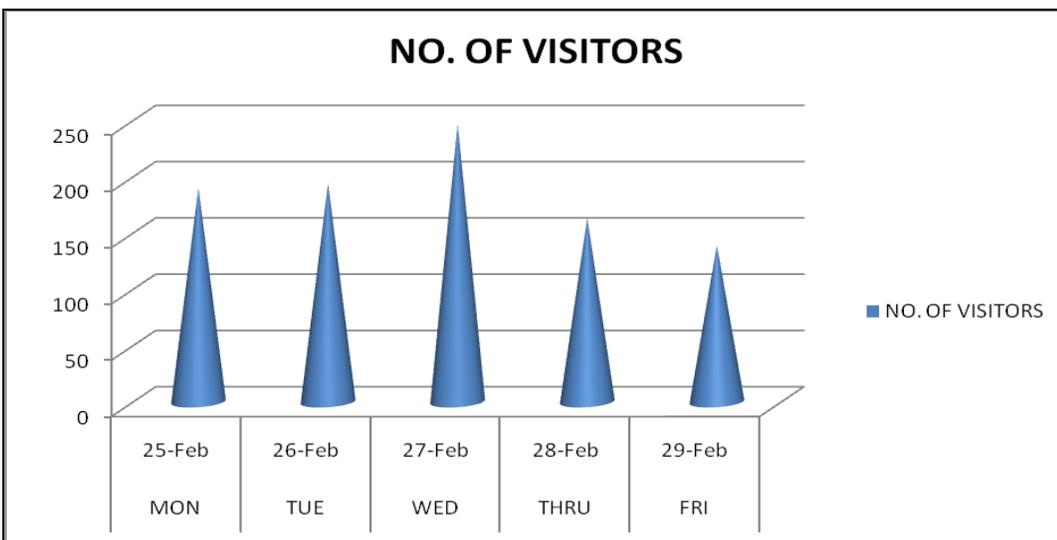
Analysis of the visitor data indicates that visitors at the FDA Campus fluctuate significantly on a weekly basis. The visitor data indicates that between 115 to 250 people visit the FDA Campus on a daily basis. Overall, this indicates that for every 100 employees, FDA generates between 6 and 12 visitors each day. Thus at the build out with 8,889 employees on site, this campus may generate between 535 and 1,065 visitors each day. In addition, analysis of the visitor data indicates that visitors at the FDA Campus fluctuate significantly on a weekly basis.

Visitors to the FDA Campus, typically, stay for the entire day for things such as training and conferences. Therefore, one parking space is used by one visitor for the entire day. FDA holds most of its public meetings off site in rented or leased facilities such as hotel conference rooms. Once the FDA Campus is fully consolidated, FDA plans on holding most of its public meetings/conferences on site. Additional facilities are being constructed that will accommodate approximately 1,600 visitors on a daily basis. Therefore, if several public meetings or a large training session is occurring and additional meetings take place on the same day, then it is likely that the 500 proposed visitor parking spaces will

be inadequate. FDA has indicated that this is expected to occur on a daily basis. Furthermore, FDA also indicates that Advisory Committee Meetings will take place on a daily basis. These meetings are open to the general public and typically last for the entire day; and on occasion can stretch to multiple days.



**Figure 14. Number of FDA Visitors Per Week**



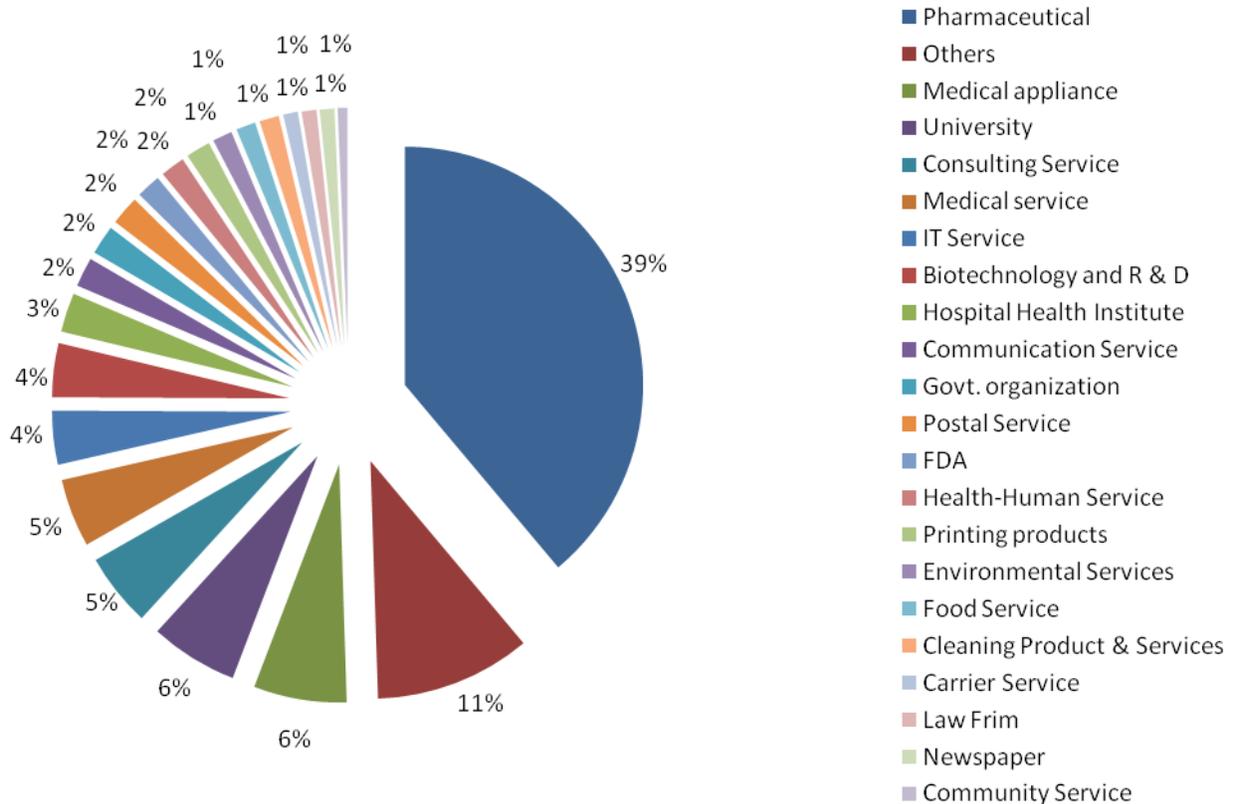
**Figure 15. Number of Visitors During the Week of February 24**

b. Visitor Parking Survey

For two weeks in February 2008, a visitor survey was conducted at the FDA Campus to determine the characteristics of the FDA visitor. Approximately 300 people participated in the survey. A copy of the visitor survey is included in the appendices. The results have been analyzed and presented below. During this time period, no large conferences/training sessions were held.

Overall, a majority of the visitors to the campus belong to the pharmaceutical industry. Figure 16 presents the industry affiliation of the FDA visitors to the FDA Campus. Approximately 40 percent of the visitors are in the pharmaceutical industry. Approximately 30 percent of the visitors are affiliated with the medical and health industries including government as well as private organizations.

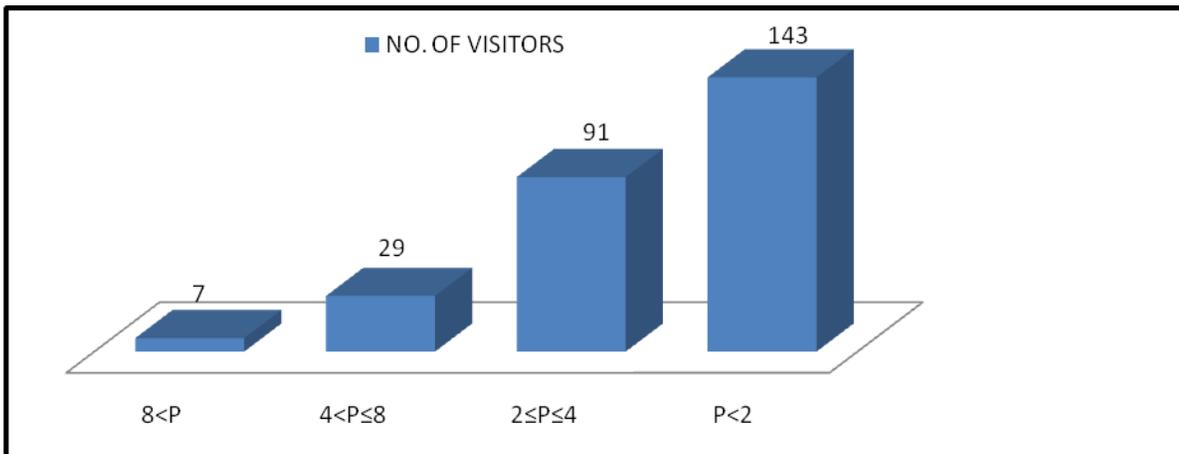
**VISITORS CHARACTERISTICS**



**Figure 16. Visitor Affiliations**

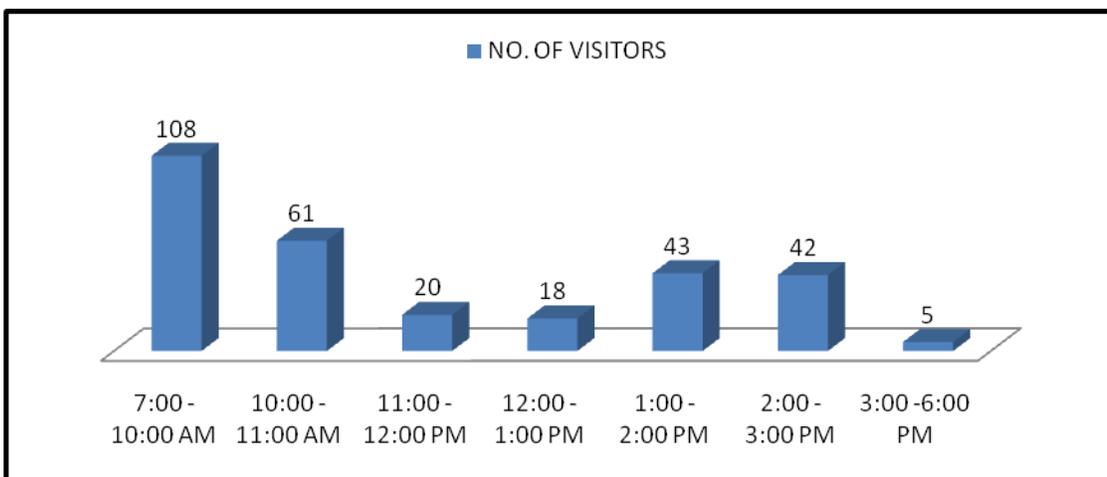
The number of visitors staying on the FDA Campus for different durations of time is graphically depicted in Figure 17. Approximately 53 percent of the visitors are visiting the FDA Campus for 2 hours

or less, 34 percent are visiting between 2 to 4 hours, and approximately 13 percent are visiting for longer than 4 hours. It should be noted that the duration of these visits is during a time period when no large meeting and/or training was conducted. FDA expects visitors to stay for much longer time periods when meetings/conferences/trainings are held on the FDA Campus. These types of events are expected to occur with some regularity once FDA is fully consolidated and the meeting/conference facilities are fully constructed.



**Figure 17. Average Parking Duration**

As shown in Figure 18, a majority, approximately 64 percent of the visitors, arrive before 12 p.m. In fact, approximately 35 percent are visiting between 7 a.m. and 10 a.m. Based on the current ratio of 6 visitors for every 100 employees, if these visitors use a parking space for an average of 4 hours, it would indicate that almost 675 parking spaces will be occupied during morning hours and will not be able to be re-utilized during that time period. With all day conferences, this number could almost double.



**Figure 18. Average Visitor Arrival Time**

c. Future Needs

FDA holds large training sessions which can last for the entire day. Furthermore, it also holds conferences which can last several days and are expected to bring a large number of visitors. These types of events will not allow for visitor parking spaces to be shared. The FDA Campus can accommodate 200 visitors and there are times when the numbers of parking spaces are not adequate. For example, if more than 60 percent of the visitors arrive in the morning and stay up to four hours then it becomes difficult for FDA to accommodate additional visitors.

FDA would like to provide a total of 1,000 visitor spaces. Some of these spaces can be dedicated for short term parking for visitors such as delivery vehicles; however, a large number will be dedicated for long term visitor parking. Overall, there are several reasons that substantiate the increase in the visitor parking from 500 spaces to 1,000 spaces:

- The FDA Campus currently provides for 275 visitor parking spaces. On numerous occasions, FDA has had more visitors than can be accommodated in the 275 visitor parking spaces. At present, FDA is experiencing approximately 6 to 12 visitors for every 100 employees. This is when no major conferences or training sessions are being conducted.
- Advisory Committee Meetings last all day, for several days in a row, where the general public is invited to attend.
- The existing White Oak Conference Center can accommodate 600 people at one time. At full build-out the FDA Campus will include a 600 seat all purpose room, and various other smaller conference and meeting rooms.
- By 2012, the FDA Campus conference and training facilities will be able to accommodate up to 1,600 visitors for purposes such as conferences, training sessions, and meetings, in addition to, visitors who may arrive to conduct routine business with FDA. It is anticipated that major training sessions will be held on a regular basis lasting several days to a full week. This could add an additional 500 to 600 visitors a day.
- Based on its experience, FDA expects that visitors coming for the training sessions and conferences will need parking for long periods/all day thus sharing a parking space will not be feasible.

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## 7 MONITORING & EVALUATION

This TMP is a flexible document that can be reshaped as new employees are added to the FDA Campus and as they adapt to their new location. Each of the TMP strategies must be evaluated and changed as seen fit by the ETC but especially during each phase of development. The ETC will evaluate each strategy by setting the goals and then documenting the progress of each goal. This is an update to the TMP published in 2006. During each evaluation period, the following steps need to be carried out:

- Determine the extent to which each program has achieved its objective
- Plan the degree of consistency of program implementation
- Detail the relationship of different strategies to the effectiveness of the program

Several options are available to the ETC in order to gauge the success of these programs, including:

- Perform an employee survey and update TMP. The ETC will perform periodic surveys of employees and reevaluate the program. This would include determining whether the goals are being met and, based on the employee trends, identifying programs which are successful and need to be emphasized and those that are not working. Surveys will be performed within six months of each major move which is in 2009 and 2012. The survey's goal will be to identify potential changes in trip characteristics.
- Perform traffic counts at all the access points at the FDA Campus. This can be easily achieved by setting tubes at each access point and periodically counting the vehicles. As each strategy is initiated, the impact of that strategy can be judged via the impact in the number of vehicles accessing the site. Care must be taken to handle the construction traffic.
- Provide program participation documentation (e.g. application of transit subsidies, van registration, preferential parking registration)
- Provide packages to existing and perspective employees that identify the transit services and the incentives being offered. As can be seen in the survey results, approximately 12 percent of the FDA employees who have relocated to the FDA Campus have moved their residences. It can be anticipated that this trend of existing employees moving closer to the FDA Campus will continue and new employees will most likely live closer to the FDA Campus. A transit package will help employees in relocating to identify locations that will be more transit friendly.

Once the FDA Headquarters at White Oak consolidation is complete, the ETC will evaluate the effectiveness of the TMP and will make modifications to achieve the stated goals. The ETC will update the TMP should any change occur if the FDA Master Plan would need to be updated. In addition, an employee survey will be performed annually and be used to revise the strategies, especially since the location of the employees can be expected to change over time. FDA will also participate in regional transportation surveys with local/municipal governments. Once the site is fully occupied, the overall goal will be an AVO of two vehicles for every three employees.