COMPREHENSIVE TRANSPORTATION AND PARKING PLAN

THE OHIO STATE UNIVERSITY
SEPTEMBER 2014
TABLE OF CONTENTS

INTRODUCTION ............................................................................................................................................................................................... 1-1
PARKING SYSTEM ........................................................................................................................................................................................... 2-1
TRANSIT SYSTEM .......................................................................................................................................................................................... 5-1
CAMPUS STREET NETWORK .......................................................................................................................................................................... 6-1
BICYCLE SYSTEM ............................................................................................................................................................................................ 7-1
PEDESTRIAN SYSTEM ................................................................................................................................................................................... 8-1
SIGNAGE AND WAYFINDING .......................................................................................................................................................................... 9-1
TRANSPORTATION SYSTEM SUSTAINABILITY ..................................................................................................................................... 10-1
IMPLEMENTATION ......................................................................................................................................................................................... 11-1
APPENDIX ........................................................................................................................................................................................................ 12-1
<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regional Context</td>
</tr>
<tr>
<td>2</td>
<td>Campus Map</td>
</tr>
<tr>
<td>3</td>
<td>Existing Conditions</td>
</tr>
<tr>
<td>4</td>
<td>Near Term Parking Strategy</td>
</tr>
<tr>
<td>5</td>
<td>Parking Shuttles</td>
</tr>
<tr>
<td>6</td>
<td>Athletics District Framework Plan</td>
</tr>
<tr>
<td>7</td>
<td>Future Parking Opportunities</td>
</tr>
<tr>
<td>8</td>
<td>Existing Schottenstein Event Parking</td>
</tr>
<tr>
<td>9</td>
<td>Schottenstein Event Parking</td>
</tr>
<tr>
<td>10</td>
<td>Schottenstein Event Parking and Shuttle Plan</td>
</tr>
<tr>
<td>11</td>
<td>Schottenstein Event Parking and Shuttle Plan</td>
</tr>
<tr>
<td>12</td>
<td>Schottenstein Event Parking and Shuttle Plan</td>
</tr>
<tr>
<td>13</td>
<td>Schottenstein Event Parking and Shuttle Plan</td>
</tr>
<tr>
<td>14</td>
<td>Schottenstein Event Parking and Shuttle Plan</td>
</tr>
<tr>
<td>15</td>
<td>Schottenstein Event Parking and Shuttle Plan</td>
</tr>
<tr>
<td>16</td>
<td>Transit Center Site Options (Seven Locations)</td>
</tr>
<tr>
<td>17</td>
<td>Transit Center Site Options (Four Locations)</td>
</tr>
<tr>
<td>18</td>
<td>Transit Center Site Options (Two Locations)</td>
</tr>
<tr>
<td>19</td>
<td>Bus Lay-By's for Campus Area Bus System</td>
</tr>
<tr>
<td>20</td>
<td>OSU Cabs Bus Routes</td>
</tr>
<tr>
<td>21</td>
<td>On-Campus Weekday Morning Parking Activity</td>
</tr>
<tr>
<td>22</td>
<td>On-Campus Weekday Afternoon Parking Activity</td>
</tr>
<tr>
<td>23</td>
<td>Cabs Boarding and Alighting</td>
</tr>
<tr>
<td>24</td>
<td>Cabs Origin and Destination</td>
</tr>
<tr>
<td>25</td>
<td>Campus Core Circulator</td>
</tr>
<tr>
<td>26</td>
<td>Parking Shuttles</td>
</tr>
<tr>
<td>27</td>
<td>Academic Campus Shuttles</td>
</tr>
<tr>
<td>28</td>
<td>Off Hours Campus Shuttles</td>
</tr>
<tr>
<td>29</td>
<td>Campus Services to Transit Center Shuttle</td>
</tr>
<tr>
<td>30</td>
<td>KRC to Transit Center Shuttle</td>
</tr>
<tr>
<td>31</td>
<td>Combined Shuttle Routes</td>
</tr>
<tr>
<td>32</td>
<td>Composite Transit Routes</td>
</tr>
<tr>
<td>33</td>
<td>Wexner Medical Center Transit Loop</td>
</tr>
<tr>
<td>34</td>
<td>COTA and Other External Bus Services Access to University</td>
</tr>
<tr>
<td>35</td>
<td>Directional Distribution of Campus Commuter Traffic</td>
</tr>
<tr>
<td>36</td>
<td>Travelsheds and Permit by Residence Location</td>
</tr>
<tr>
<td>37</td>
<td>Cannon Drive Relocation Project</td>
</tr>
<tr>
<td>38</td>
<td>Framework Plan Roadway Recommendations</td>
</tr>
<tr>
<td>39</td>
<td>Near Term Roadway Improvements</td>
</tr>
<tr>
<td>40</td>
<td>Managed Streets</td>
</tr>
<tr>
<td>41</td>
<td>Access Control Techniques</td>
</tr>
<tr>
<td>42</td>
<td>Campus Core Street Enhancements</td>
</tr>
<tr>
<td>43</td>
<td>Neil Avenue Transit Spine</td>
</tr>
<tr>
<td>44</td>
<td>Neil Avenue - South of Woodruff</td>
</tr>
<tr>
<td>45</td>
<td>Neil Avenue - South of Woodruff - Before</td>
</tr>
<tr>
<td>46</td>
<td>Neil Avenue - South of Woodruff - After</td>
</tr>
<tr>
<td>47</td>
<td>17th Avenue</td>
</tr>
<tr>
<td>48</td>
<td>17th Avenue Section</td>
</tr>
<tr>
<td>49</td>
<td>17th Avenue Before and After</td>
</tr>
<tr>
<td>50</td>
<td>South Neil Avenue Transit Spine</td>
</tr>
<tr>
<td>51</td>
<td>Neil Avenue - South Neil</td>
</tr>
<tr>
<td>52</td>
<td>Neil Avenue Southern Section Before and After</td>
</tr>
<tr>
<td>53</td>
<td>All Roadway Improvements</td>
</tr>
<tr>
<td>54</td>
<td>Existing Sharrows and Bike Paths</td>
</tr>
<tr>
<td>55</td>
<td>Proposed Sharrows, Bike Lanes, Managed Streets, Bus/Bike Lanes and Shared Use Paths</td>
</tr>
<tr>
<td>56</td>
<td>Potential Bicycle Storage Location</td>
</tr>
<tr>
<td>57</td>
<td>Recreation Loop</td>
</tr>
<tr>
<td>58</td>
<td>Pedestrian Plan</td>
</tr>
<tr>
<td>59</td>
<td>Campus Core Circulator</td>
</tr>
</tbody>
</table>
# List of Tables

**Table 1**: OSU Parking System ................................................................. 2-3

**Table 2**: Wexner Medical Center Parking Projections ...................... 2-4

**Table 3**: Remote Parking Supporting Medical Center Projections ... 2-5

**Table 4**: OSU Annual Event Frequency .............................................. 3-1

**Table 5**: OSU Average Event Attendance ........................................... 3-1

**Table 6**: Transit Center Options ......................................................... 4-4

**Table 7**: The Ohio State University Commuter Traffic Distribution ... 6-2

**Table 8**: Phase 1 Cost Data ................................................................. 11-1
THIS PAGE IS INTENTIONALLY BLANK
THIS PAGE IS INTENTIONALLY BLANK
INTRODUCTION

PLAN CONTEXT
Modern universities are dynamic, open and engaging parts of the community. Universities are characterized as places of learning and research, communities hosting faculty, staff, and students, cultural centers and community resources, and important contributors to regional economies. The Ohio State University, established in 1870, is one of the largest and most highly recognized public universities in the nation. (See Figure 1)

LEARNING AND RESEARCH
The Columbus campus is one of America’s largest and most comprehensive, encompassing over 1,700 acres, 451 buildings, over 56,000 students, and about 33,000 full-time equivalent employees. The University is host to 14 colleges, offering 145 undergraduate majors, and over 1,200 course offerings. (See Figure 2)

HEALTH AND HEALING
The Columbus campus is also home to the Wexner Medical Center, which is one of the largest and most diverse academic medical centers in the country and the only academic medical center in central Ohio and the Columbus Region. The University is home to the Wexner Center for the Arts, a 108,000-square-foot facility home to exhibitions, performances, film and video. The University is also an important contributor to the commercial district along High Street through its involvement in the South Gateway development and is a supporter of the Short North retail, entertainment and arts district just to the south of the campus.

ATHLETICS
In addition to academics and research, athletics is an important component of the University’s reputation and culture. The Ohio Stadium, which seats over 100,000 spectators is one of the largest football stadiums in collegiate athletics and is only one of the many athletic venues on the Columbus campus. Another notable venue, the Schottenstein Center is home to the basketball and hockey programs and also serves as a multipurpose venue hosting numerous performance and community events. In

addition to these venues, numerous other athletic facilities are found on the Columbus campus.

TRANSPORTATION AND PARKING
Transportation and parking at The Ohio State University depends on a system of interconnected facilities that move traffic, provide parking, facilitate walking and bicycling, and employ a variety of transit options to support the functioning of the University. Less than 2 years ago, the University entered into a concession agreement which transferred the operation and management of parking at the University to CampusParc, an independent business entity. CampusParc manages a supply of approximately 34,000 parking spaces supporting a wide range of customers including student residents, commuting students, faculty and staff, clinicians, community physicians, hospital patients and visitors, museum patrons, event attendees, campus visitors, shoppers, and others. These parking spaces are distributed around the 1,700 acre campus, with some locations proximate to campus activity centers and others more distant from these key locations. Today, a little more than two-thirds of these spaces are occupied during the peak period on a typical day.

Given the geographic scale of the campus, The Ohio State University Transportation and Traffic Management (TTM) department operates an extensive system of shuttles known as the Campus Area Bus Service (CABS). CABS moves the campus community within the campus boundaries and adjacent neighborhoods. TTM supplements this system with accessibility transportation options for members of the community with personal mobility limitations.
The Columbus Campus also provides a network of bicycle and pedestrian facilities within the campus core and immediately surrounding areas. Of very good quality at the core, these networks do not provide good coverage of other campus areas today.

While the University owns and controls important pieces of the transportation system, major components are provided by the City of Columbus, the Ohio Department of Transportation (ODOT), the Central Ohio Transit Authority (COTA), and private providers.

A GROWING AND CHANGING CAMPUS

The Columbus campus is continually evolving to meet the changing needs of the University. At the time of this plan, major academic and research projects including the CBEC (Chemical Biomolecular Engineering and Chemistry Research Building) was nearing completion, the East Chiller Plant was under construction, and two other major projects were in progress. These include the North Housing District Transformation (NRDT) and the New James Cancer Hospital and Solove Research Institute and Critical Care Center at the Wexner Medical Center (WMC). Another key project, from a transportation perspective, is the restoration of the Olentangy River, which will open this corridor as a transportation and open space resource through the campus, making connections to other activity centers in Columbus.

This plan is also informed by short and medium term plans associated with the relocation of Cannon Drive near the Wexner Medical Center and other proposals such as a new arena with the Athletics District and associated redevelopment of the St. John’s Arena block. In an environment like the Ohio State University Campus, change is a constant. While some of these projects are critical determinants of the future transportation needs described in this plan, the plan also recognizes that change will continue in the future, so the strategies outlined need be flexible enough to accommodate these needs as they emerge.
FIGURE 2: CAMPUS MAP
The previous plans completed by the University that most directly inform the evolution of transportation and parking facilities at the University includes the following:

- The Ohio State University Framework Plan (2010)
- North Residential District Master Plan (2012)
- South Residential District Master Plan (2011)
- Athletics District Framework Plan Update (2013)
- Academic Core North Landscape District Plan (2011)
- Jameson Crane Sport Medicine Institute Plan (2014)
- OSU Signage & Wayfinding Plan (2013)
- Campus Bikeways Subdistrict Plan (2006)
- Climate Action Plan (2011)

The Ohio State University is developing for the future based on the One Ohio State University Framework Plan completed in 2010. This plan provides structure for the long term development of the campus including major changes in facility locations. The Framework Plan includes several high-level recommendations about the transportation system that will support the broader campus development vision. This CTPP follows the basic direction established in the Framework Plan, providing more detail on some of the critical and near-term needs of the University.

As described above, change is always occurring in a dynamic setting like the Columbus Campus. The need for a Comprehensive Transportation and Parking Plan (CTPP) at The Ohio State University has emerged in recent years due to a number of factors.

- The goal of ‘park once’ from the University’s Framework Plan
- Growth at the Wexner Medical Center including the near-term opening of the new hospital tower
- Planned relocation of Cannon Drive, necessary to improve flood protection at the Wexner Medical Center and to provide additional land area for continued growth and economic development
- Increased bicycle and pedestrian traffic as a culture of health and wellness takes hold.
- Construction of the North Residential District which includes second year students living on campus
- Increased number of events at the Schottenstein Center and in the Athletic District
- Setting the stage for future capital improvement projects identified in the framework plan and through other initiatives.

The CTPP recommends addressing the above factors by creating a phased plan of improvements to support an efficient and well-managed transportation and parking system on campus. Recommendations include roadway, safety and connectivity improvements and an evaluation of the impact of the relocation of Cannon Drive (in the near term) and other planned redevelopment (in the longer term) on the existing parking system.

CTPP VISION

Provide an efficient, effective and user-friendly transportation and parking system that meets the needs of students, faculty and staff on the OSU Campus and Wexner Medical Center while enhancing operations, the campus character, and the environment. The plan direction and guiding principles are provided below:

PARKING SYSTEM

- Align the existing parking resources to better meet the campus needs.
- Recognize and prioritize the need for convenient on-site parking to support visitor needs at the University and patient/visitor needs at the Medical Center.
- Minimize, to the extent feasible, the conflicts between every-day parking needs and event-related parking needs.
- Provide appropriate, convenient and well-connected remote parking areas to support Campus needs. Consider relationship between arrival/departure patterns, lot size, and transportation operations when locating and sizing remote parking facilities.
- Provide on-street or special parking near buildings to meet specific requirements such as handicapped parking, valet needs, and deliveries.
- Consider and accommodate on-site the market-driven needs of public/private R&D, hotel and other special land uses within the Campus Core

TRANSIT SYSTEM

- Support the campus through a robust transit system that includes express shuttle service to parking, a campus core circulator system, shuttles serving other portions of the campus and service during off-peak hours.
- Provide transit service that supports the movement of staff, faculty and staff within the Campus Core
- Provide transit service that shuttles people directly from remote parking locations to key locations on the Campus
- Interface with COTA service at the campus edges and encourage system ridership
- Provide transit service that operates on or near schedule and with reasonable travel times between key origins and destinations.
- Minimize conflicts with general traffic congestion and event-related transportation patterns.
**CAMPUS STREET NETWORK**

- Make strategic improvements to the existing road system, carefully add additional road segments and implement a limited street management program to help balance vehicular, bicycle and pedestrian traffic.
- Enhance the grid of streets in the Core Campus area to help distribute traffic and improve mobility.
- Provide streets that meet the needs of all users and enhance the campus environment
- Manage conflicts between modes as effectively as possible given the context of the streets.

**REGIONAL STREET NETWORK**

- Work closely with Ohio Dept. of Transportation (ODOT) and the City of Columbus to plan for and implement upgrades and improvements to the regional road system including expansion of road capacity, design of campus gateways, and signage and wayfinding systems. Improve campus connections both to and from SR315 and I-71.
- As future development occurs on areas west of the Olentangy River – create a grid network to serve these future uses
- Design access from 315 interchanges to be efficient and user friendly
- Design intersections with surrounding road network to support effective traffic entry and exit from campus areas
- Allow for redundant paths of travel to support event, emergency and other unusual transportation conditions.

**BICYCLE SYSTEM**

- Expand and support creation of a comprehensive and safe bicycle network with supporting facilities that provide regional access and connectivity throughout the campus.
- Provide continuous and interconnected bicycle path system throughout appropriate portions of the campus
- Discourage bicycle use for short trips within the Campus Core where pedestrian conflicts are most significant
- Bicycle routes within the Core Campus should be primarily on-street, and encouraged by sharrows (shared-lane markings on that street).
- Bicycle paths west of the Olentangy should be either separated paths or defined bike lanes along the existing or future streets
- Provide connections between regional bike network such as Olentangy Greenway and Upper Arlington and the campus
- Provide connections between campus and the surrounding neighborhoods
- Provide support facilities for biking (repair, rental, long-term and secure storage) at key locations within the campus core and at significant destinations elsewhere on campus

**PEDESTRIAN SYSTEM**

- Expand and support creation of a comprehensive pedestrian network that encourages pedestrian access and improved safety, particularly areas west of the Olentangy River
- Provide wide and accessible sidewalks on both sides of the street in the Campus Core Area

**IMPLEMENTATION**

- Establish an implementation strategy that provides a flexible and thoughtful approach to implementing improvements in a phased sequence.
- Provide appropriately-sized, accessible, and buffered sidewalks on both sides of streets west of the Olentangy, unless special circumstances suggest otherwise.
- Provide pedestrian-level lighting, signals, and markings at all intersections throughout campus where sidewalks are present.
- Provide high-visibility crosswalks and other enhancements (signage, beacons, lighting, etc.) at unsignalized crosswalk locations.
2.0 PARKING SYSTEM
PARKING SYSTEM

PARKING MANAGEMENT

The Ohio State University parking system is comprised of an expansive network of parking garages, parking lots, and on-street parking interspersed throughout the campus. In September 2012, the University entered into a concession agreement which transferred the operation and management of parking at the University to CampusParc, an independent business entity. CampusParc manages a supply of approximately 34,000 parking spaces supporting a wide range of customers including student residents, commuting students, faculty and staff, clinicians, community physicians, hospital patients and visitors, museum patrons, event attendees, campus visitors, shoppers, and others. These parking spaces are distributed around the 1,700 acre campus, with some locations proximate to campus activity centers and others more distant from these key locations.

CAMPUS PARKING FACILITIES

A total of 16 parking garages are located on The Ohio State University campus. Surface parking is distributed throughout the campus, but is most heavily concentrated around the stadium/arena facilities and west of the Olentangy River.

WEXNER MEDICAL CENTER PARKING FACILITIES

The Wexner Medical Center (WMC) requires significant parking resources to support the highly-active clinical services provided by the hospital, as well as various research and teaching functions. Several parking garages are provided in close proximity to the Wexner Medical Center to faculty, staff, and visitors. Specifically, the 9th Avenue West, and Neil Avenue Garages provide faculty and staff parking. The 12th Avenue, South Cannon and SafeAuto Garages provide exclusive visitor parking and the North Cannon and 9th Avenue East Garages provide a combination of faculty/staff and visitor parking. The Cannon Lots are the most significant surface parking resource, used primarily by Wexner Medical Center staff, but these lots will be eliminated when the Cannon Drive relocation project is completed. Currently, remote parking for the Wexner Medical Center is provided in the Buckeye Lots, located in the northern reaches of the Athletics District. The Buckeye Lots are served by a CABS shuttle with direct access to the Wexner Medical Center. A new hospital containing the James Cancer Hospital and Solove Research Institute and Critical Care Center is currently under construction along 10th Avenue.

ACADEMIC CORE PARKING FACILITIES

The garages that primarily serve faculty/staff, commuters, and visitors to the Academic Core include the Tuttle, Northwest, Lane Avenue, Arps, Ohio Union North, Ohio Union South, and 11th Avenue Garages. The greatest repository of proximate surface parking for the Academic Core is located around the Ohio Stadium and St. John Arena complex. A handful of small parking lots and on-street parking spaces are provided near individual buildings throughout the core. Remote parking for the Academic Core is provided in the Carmack Lots. (See Figure 3)

OTHER PARKING FACILITIES

The West Lane Garage is primarily a student resident garage. The South Campus Gateway Garage serves a dual purpose as designated faculty/staff parking and market-rate parking to serve the commercial land uses in the South Campus Gateway development. Remote parking for on-campus residents, commuter students, faculty and staff is provided in the Carmack Lots, west of State Route 315, and is served by CABS.

PARKING SUPPLY AND OCCUPANCY

Both the University and CampusParc maintain detailed records of parking supply and occupancy data for the University’s parking lots and garages. The University parking system is comprised of a total of approximately 34,070 off-street parking spaces, including 21,080 surface parking spaces and 13,000 structured parking spaces. Records for on-street parking within the campus boundaries are not available.

To better assess and convey information regarding localized parking occupancy at the University, the campus was divided into nine regions based on geographic and functional characteristics. The regions consist of the Wexner Medical Center, Academic Core, Stadium/Arena Lots, Residential Zones, South Campus Gateway Garage, Agriculture/Veterinary Medicine Campus, Athletics District, Ackerman Campus, and areas west of State Route 315. All parking facilities within the campus were grouped with the regional structure to compare parking supply and occupancy conditions on a regional basis. (See Figure 4)

Table 1 summarizes the afternoon peak parking supply and occupancy data for each campus region and the overall campus. The total parking capacity, the peak number of vehicles parked (occupancy), and the peak utilization are identified for each region. This data represents conditions related primarily to commuter, residential, visitor, and service parking within the campus on a typical day. The regions with the highest parking demand are the Wexner Medical Center (85% utilization), the Academic Core (81% utilization), and the Stadium/Arena Lots (79% utilization). The University parking system is currently 67% occupied overall during the afternoon peak period, with approximately 22,850 available parking spaces.
FIGURE 3: EXISTING CONDITIONS

BUCKEYE LOTS
2,260 SPACES

CARMACK
4,090 SPACES

WEXNER MEDICAL CENTER
2,170 SPACES

CAMPUS CORE

Fred Taylor Drive
Herrick Drive
CarMacK
Woody Hayes Drive

2-2
### Table 1: OSU Parking System

<table>
<thead>
<tr>
<th>ZONE</th>
<th>Parking Type</th>
<th>2013 Parking Data</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Capacity</td>
<td>Occupied</td>
<td>Utilization</td>
<td></td>
</tr>
<tr>
<td>Medical Center</td>
<td>Surface Parking</td>
<td>2,201</td>
<td>1,995</td>
<td>91%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garages</td>
<td>5,685</td>
<td>4,715</td>
<td>83%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>7,886</td>
<td>6,710</td>
<td>85%</td>
<td></td>
</tr>
<tr>
<td>Academic Core</td>
<td>Surface Parking</td>
<td>288</td>
<td>255</td>
<td>89%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garages</td>
<td>5,819</td>
<td>4,701</td>
<td>81%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>6,107</td>
<td>4,956</td>
<td>81%</td>
<td></td>
</tr>
<tr>
<td>South Campus Gateway Garage</td>
<td>Surface Parking</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garages</td>
<td>1,200</td>
<td>676</td>
<td>54%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1,200</td>
<td>676</td>
<td>54%</td>
<td></td>
</tr>
<tr>
<td>Stadium/Arena Lots</td>
<td>Surface Parking</td>
<td>3,027</td>
<td>2,390</td>
<td>79%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>3,027</td>
<td>2,390</td>
<td>79%</td>
<td></td>
</tr>
<tr>
<td>Residential Zones</td>
<td>Surface Parking</td>
<td>412</td>
<td>329</td>
<td>80%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garages</td>
<td>284</td>
<td>53</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>696</td>
<td>382</td>
<td>55%</td>
<td></td>
</tr>
<tr>
<td>Ag Campus/Vet Med</td>
<td>Surface Parking</td>
<td>1,955</td>
<td>1,356</td>
<td>69%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1,955</td>
<td>1,356</td>
<td>69%</td>
<td></td>
</tr>
<tr>
<td>Athletics District</td>
<td>Surface Parking</td>
<td>5,485</td>
<td>1,505</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>5,485</td>
<td>1,505</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Ackerman</td>
<td>Surface Parking</td>
<td>1,248</td>
<td>862</td>
<td>69%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1,248</td>
<td>862</td>
<td>69%</td>
<td></td>
</tr>
<tr>
<td>West of 315</td>
<td>Surface Parking</td>
<td>6,467</td>
<td>4,011</td>
<td>62%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>6,467</td>
<td>4,011</td>
<td>62%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>34,071</td>
<td>22,848</td>
<td>67%</td>
<td></td>
</tr>
</tbody>
</table>

Note: * Athletics District parking utilization reflects typical weekday commuter parking, not peak event parking conditions.
PARKING PERMIT SYSTEM

CampusParc maintains a system of parking permits designed to provide tiered access to parking for faculty/staff, commuters, and residents. Parking permits are grouped by employment/enrollment status to provide diminishing levels of access to various parking facilities (i.e., “A” permits for faculty, “B” permits for staff, and “C” permits for students). Surface parking permits typically provide access to all surface lots throughout the campus. Faculty parking permits provide access to all garages, while staff and student garage parking permits provide full-time parking access to only a few parking garages and full access to all surface parking. Most of the University’s parking garages are open and accessible to all users during off-peak times.

Access to parking garages is controlled by an access card system that only allows approved permit holders to enter garages. Several parking garages on campus are designated for visitor-only access during the peak weekday period (5:00 AM – 4:00 PM). These locations include the 12th Avenue, South Cannon, and Ohio Union South garages. Most garages on the campus allow off-peak parking (4:00 PM – 3:00 AM) by any applicable permit holder.

The SafeAuto Garage, located in the medical center, is reserved for visitors at all times. Reserved valet parking for the Wexner Medical Center is provided in the 9th Avenue West Garage. The Wexner Medical Center parking valet is operated at the front entrance to Rhodes Hall off of Medical Center Drive and the James Cancer Hospital off of 10th Ave.

Access to surface parking at the university is uncontrolled. Enforcement of the parking permit system in the surface parking lots is dependent on enforcement using license plate scanners. In addition, the visitors are able to pay for parking in many of the lots. Pricing for parking permits is generally based on the location. CampusParc provides reduced parking prices for remote parking lots to incentivize parking in these locations. The lowest priced parking spaces on campus are the Buckeye Lots, located in the northern region of the Athletic District, which are connected to both the Wexner Medical Center and Academic Core via the CAB5 system.

NEAR-TERM PARKING STRATEGY

In the 2010 Framework Plan, a key driver for changes to the parking system is the realignment of Cannon Drive. The new road will displace 2,170 parking spaces currently located in the Cannon Lots west of Cannon Drive and Dodd Lot east of Cannon Drive. Addressing the need for Wexner Medical Center staff parking that is currently accommodated in the Cannon Lots is a primary goal for the near-term parking strategy.

Additionally, there is a continuing need to balance the rate of growth within the Wexner Medical Center and the desire to maintain adequate parking resources for proximate visitor parking. There are currently no near-term plans to expand parking facilities within the Wexner Medical Center and faculty/staff parking facilities need to maintain utilization levels conducive to efficient shift changes. These competing interests suggest that some staff members currently parking in garages throughout the Wexner Medical Center will need to be accommodated in other parking facilities to accommodate expanding visitor parking demands. Table 2 highlights the projected Wexner Medical Center parking facility utilization after completion of the new hospital tower and Cannon Drive relocation projects.

<table>
<thead>
<tr>
<th>TABLE 2: WEXNER MEDICAL CENTER PARKING PROJECTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OSU PARKING FACILITY</strong></td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td><strong>2013 Existing Condition</strong></td>
</tr>
<tr>
<td>Surface Parking</td>
</tr>
<tr>
<td>Parking Garages</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
</tr>
<tr>
<td><strong>Near Term Projections</strong></td>
</tr>
<tr>
<td>Surface Parking</td>
</tr>
<tr>
<td>Parking Garages</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
</tr>
</tbody>
</table>

Based on historical enrollment/employment growth and projections for new patient care capacities in the Wexner Medical Center, the University parking system is anticipated to need to provide remote parking for approximately 2,600 vehicles from the Wexner Medical Center during peak weekday conditions. This finding is based on evaluation of the remote parking required to replace capacity from the Cannon Lots (and other nearby surface lots), provide capacity for patient parking growth, and maintain an approximately 85% utilization level in Wexner Medical Center faculty/staff parking, which should maintain adequate capacity in Wexner Medical Center parking facilities for shift changes or elevated staffing events. This level of parking accommodation will allow the Wexner Medical Center to maintain adequate parking reserves for proximate visitor parking and staff shift changes. Greater reliance on remote parking resources for medical faculty and staff dictates a need for more robust campus transit service and facilities to make parking in remote lots as feasible.
The Buckeye and Carmack lots provide a total of 6,350 parking spaces with the potential to expand remote parking operations supporting both the Wexner Medical Center and Academic Core. The size of the Carmack Lots (4,090 spaces) suggests they are the only consolidated location that would fit the Wexner Medical Center’s needs. By reorganizing and focusing the Wexner Medical Center parking in the Carmack Lots and the academic parking in the Buckeye Lots, the University will be able to use existing parking resources to meet demand. This change in parking may also facilitate the shared event parking as academic parkers tend to leave their spaces by the end of the business day, while the Wexner Medical Center operates 24 hours requiring parking throughout the day and night.

To accommodate the Wexner Medical Center parking demands, vehicles associated with the Academic Core will need to be relocated from the Carmack Lots to the Buckeye Lots, and vice versa for existing remote Wexner Medical Center parking in the Buckeye Lots. A total of 1,600 vehicles in the Carmack Lots and 700 vehicles in the Buckeye Lots are estimated to be impacted by this strategy. Additionally, approximately 500 student resident vehicles currently parking in the Carmack Lots will need to be relocated to separate resident/overnight parking facilities. The only non-Wexner Medical Center parking anticipated to remain in the Carmack Lots is parking related to the academic buildings located near Beekman Park. Table 3 summarizes the projected parking conditions in the Carmack and Buckeye Lots (see Figure 5).

### TABLE 3: REMOTE PARKING SUPPORTING MEDICAL CENTER PROJECTIONS

<table>
<thead>
<tr>
<th>OSU PARKING FACILITY</th>
<th>PARKING CAPACITY (SPACES)</th>
<th>PARKING DEMAND (VEHICLES) FACULTY/STAFF</th>
<th>PATIENT/VISITOR</th>
<th>STUDENTS</th>
<th>TOT.</th>
<th>PARKING UTILIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2013 Existing Condition</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buckeye Lots</td>
<td>2,261</td>
<td>972</td>
<td>0</td>
<td>19</td>
<td>991</td>
<td>44%</td>
</tr>
<tr>
<td>Carmack Lots</td>
<td>4,093</td>
<td>429</td>
<td>0</td>
<td>1,740</td>
<td>2,169</td>
<td>53%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>6,354</td>
<td>1,401</td>
<td>0</td>
<td>1,759</td>
<td>3,160</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Near Term Projections</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buckeye Lots</td>
<td>2,541</td>
<td>850</td>
<td>150</td>
<td>1,200</td>
<td>2,200</td>
<td>86%</td>
</tr>
<tr>
<td>Carmack Lots</td>
<td>4,093</td>
<td>3,400</td>
<td>0</td>
<td>300</td>
<td>3,700</td>
<td>90%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>6,654</td>
<td>4,250</td>
<td>150</td>
<td>1,500</td>
<td>5,900</td>
<td>89%</td>
</tr>
</tbody>
</table>

The Carmack Lots are anticipated to accommodate parking by a total of 3,300 Medical Center vehicles and 400 vehicles associated with academic buildings near Beekman Park. Wexner Medical Center parking in the Carmack Lots will be supported by new CABS shuttle service directly to the Medical Center, via Woody Hayes Drive, Herrick Drive, and 12th Avenue. Significant bus shelter improvements are planned, including strategically locating shelters in each lot to ensure that the majority of parkers will have to walk more than 500 feet. Further, the CTPP recommends installing improved, appropriately sized, and climate controlled shelters containing appropriate technology to support the increased number of riders (see Figure 5).

To facilitate an efficient and convenient connection from the Carmack Lots to the Wexner Medical Center for staff/employees, the CABS parking shuttles would enter the Medical Center from John Herrick Drive, make a counterclockwise route as follows: south on Cannon Drive, east on 12th Avenue, north on Neil Avenue, and west on John Herrick Drive. This loop will provide the best accessibility and connection for riders to their destination. The four stops below would be the maximum proposed, as 2-3 stops may be sufficient to accommodate the area.

- Intersection of the new Cannon Drive and 12th Avenue
- Existing stop on 12th Avenue at Doan Hall
- John Herrick Drive at Campbell Hall
- Walkway connection to Lincoln Tower on John Herrick Drive

The CTPP identifies the Buckeye Lots as the best near-term remote parking reserve to serve the needs of the Academic Core. Additionally, the Buckeye Lots will need to serve continuing parking demand from the Ackerman Road facilities and projected parking demand for the new Sports Medicine building, sited at the north end of the Buckeye Lots. To provide adequate parking capacity for existing and projected demand, the Buckeye Lots will need to be expanded by approximately 300 spaces. Available land to the west of the Buckeye 1 lot has been identified as a likely location for parking expansion.

Remote overnight parking for students with vehicles on campus will need to be provided in alternative locations to the Carmack Lots and Buckeye Lots. Approximately 750 overnight parking spaces should be provided for long-term parking needs. Current demand patterns suggest that approximately 500 parking spaces are available in the upper levels of the underutilized South Campus Gateway garage and West Lane garage. Additional long-term capacity may be provided in the Kinnear Road Center (KRC) parking lot if the existing KRC buildings are demolished.

Dedicated CABS shuttle service from the Buckeye Lots to the Academic Core will be provided via Fred Taylor Drive, Woody Hayes Drive, and Woodruff Avenue. The CABS service from the Buckeye Lots is planned to connect to a new transit center located in or near the Academic Core.
**FIGURE 4: NEAR TERM PARKING STRATEGY**

<table>
<thead>
<tr>
<th>Summary</th>
<th>Medical Center Needed</th>
<th>Other Needed</th>
<th>Total Demand</th>
<th>Provided Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carmack Lots</td>
<td>3,300</td>
<td>400</td>
<td>3,700</td>
<td>4,090</td>
</tr>
<tr>
<td>Academic Core</td>
<td>Needed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Needed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Demand</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provided Capacity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buckeye Lots</td>
<td>1,600</td>
<td></td>
<td>2,200</td>
<td>2,560</td>
</tr>
<tr>
<td>Academic Core</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Needed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Demand</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provided Capacity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Student storage provided elsewhere on campus
LONG-TERM PARKING STRATEGY

Growth in enrollment, employment, academic research, clinical services, medical research, and on-campus housing, among other key missions of the University, suggest that long-term parking demands on the campus will continue to grow steadily. Absent greater acceptance and implementation of regional transit options or other alternative transportation modes, the University needs to prepare for significantly increased parking demand within the campus.

Several recent campus plans show development projects that impact existing parking resources, particularly in proximity to the Academic Core. The North Residential District project, currently under construction, eliminated several small parking lots and on-street parking spaces. The 2010 OSU Framework Plan shows several projects that eliminate surface parking:

- Cannon Lots and Dod Lot (2,170 spaces) will be eliminated to realign Cannon Drive and provide greater development potential for the WMC.
- The Agriculture School will be relocated to the St. John Arena site, eliminating over 1,300 parking spaces.
- The North and South Riverbank Lots (320 spaces) along the west side of the Olentangy River will be eliminated to provide more open space and reduce impervious surfaces.

The Athletics District Framework Plan (see Figure 6) shows significant development of new athletic facilities west of the Olentangy River that will eliminate some surface parking. To offset the surface parking losses and provide adequate parking for multiple athletic events, the plan in the long term recommends constructing significant new parking decks on the Buckeye Lots, which would also temporarily impact existing parking in those lots. While the planned parking would address some Athletics event parking needs, several issues were identified with the scale of the parking structures and these facilities are not shown in the CTPP long-term parking plan. The issues included limited roadway capacity for commuter and event traffic even
after planned improvement projects, potential for operational conflicts during events, inefficient garage circulation and loading, event shuttle overload, and potential capital costs for parking that is unlikely to efficiently serve daily commuters. Alternative parking for special events is identified in the Events Parking Strategy section. The University should consider further study of parking structures in the Athletics District as development plans evolve throughout campus.

Figure 6: ATHLETICS DISTRICT FRAMEWORK PLAN

Parking demand projections were developed for a 10+ year planning horizon based on historical and anticipated growth data provided by the University. The primary sources of data used to develop parking growth projections include:

- Undergraduate and graduate student enrollment projections (Office of Enrollment Services)
- Faculty/staff employment projections (Institutional Research and Planning)
- Inpatient admissions and outpatient procedure projections (Wexner Medical Center)

Analysis of these data indicate that growth in the Wexner Medical Center is the greatest driver of future parking demand at the University, with inpatient admissions and outpatient procedures anticipated to increase at approximately 3.0% and 5.9% effective annual rates, respectively. The University’s academic enrollment and employment projections indicate more modest growth at approximately 1.1% and 0.6% annual growth rates, respectively.

Parking forecasts for the University, based on the long-term growth projections, indicate that overall parking demand is likely to grow by approximately 5,800 vehicles by 2025. Over the same planning horizon, approximately 3,800 existing parking spaces will be eliminated to accommodate various development projects. The combination of parking demand growth and parking supply reduction associated with the University’s growth results in an overall parking utilization ratio of 95 percent, which is an unsustainable level for efficient parking operations at the University. This level of parking utilization also causes special event conditions to be unmanageable.

The parking deficiency is driven in particular by parking demand growth in the Wexner Medical Center, Academic Core, and the stadium/arena regions. New parking facilities, including both proximate and remote options, will be necessary to provide adequate accommodations for these vehicles over the long term. The parking analysis indicates that the University is likely to require approximately 7,000 new parking spaces to address long-term parking demands while maintaining manageable utilization levels in all campus regions.

Beyond these larger regions, the parking demand analysis indicates some specific facilities at the University are projected to experience parking capacity challenges over the long term planning horizon. The Martha Morehouse Medical Pavilion in particular is anticipated to experience growth in peak parking demand of over 400 vehicles by 2025, significantly exceeding the already constrained parking capacity located in the Morehouse complex. This finding supports construction of additional parking facilities for employees of the Martha Morehouse Medical Pavilion within walking distance and supported by direct transit service.

The CTPP identifies several candidate sites to expand existing parking or construct new parking facilities. The principles that guided the selection of potential long-term parking sites included:

- Priority for sites that afford the ability to provide at least 300 new parking spaces.
- Proximate demand for parking, including support for special events.
- Ease of access to the regional arterial and freeway road network.
- Consolidated remote parking facilities that support efficient transit service.

New parking facilities in proximity to the Academic Core, including an expanded West Lane Garage, a site near the Ohio Stadium, and sites within the Wexner Medical Center, generally consist of parking structures. Expanded and new parking facilities west of the Olentangy River generally consist of surface parking, except at the Ackerman Road facility, where medical /clinical program growth suggests a new parking structure is appropriate. Additional parking in the Carmack Lots and new parking along Kenny Road can support long term parking growth in both the Wexner Medical Center and the Martha Morehouse Medical Pavilion. (See Figure 7)
**Figure 7: Future Parking Opportunities**

<table>
<thead>
<tr>
<th>LOT</th>
<th>SPACES</th>
<th>COMMENTS</th>
</tr>
</thead>
</table>
| A   | 1,500 (1,200 new) | Pros: Significant new capacity  
Cons: Construction impacts |
| B   | 400    | Pros: Proximity to events  
Cons: Potential wetland impacts |
| C   | 300    | Pros: Logical location  
Cons: AD Fields / Wetland Impacts |
| D   | 1,000 (700 new) | Pros: Proximity to events  
Cons: Service building impacts  
(requires Schottenstein Drive extension) |
| E   | 1,300 (1,150 new) | Pros: Proximity to events  
Cons: Service building impacts  
(requires Schottenstein Drive extension) |
| F   | 400    | Pros: Supports Core and events  
Cons: Rec field impacts |
| G   | 775 (500 new) | Pros: Close to Schott Center  
Cons: Limited size |
| H   | 1,000  | Pros: Proximate to events  
Cons: Rte. 315 is a barrier |
| I   | 640    | Pros: Supports Med Center  
Cons: Wetland impacts  
(see i (alt) for alt. to minimize wetland impact) |
| J   | 1,650 (1,400 new) | Pros: Significant Core capacity  
Cons: Land swap needed |
| K   | 900 (850 new) | Pros: Significant Core capacity  
Cons: Building impacts |
| L   | 450    | Pros: Supports WMC growth  
Cons: Limited footprint |
| M   | 825    | Pros: Supports WMC growth  
Cons: Furthest site from Hospital |
| **Total** | **11,140 (9,815 new)** | This compares to estimated growth by 2025  
suggesting a maximum capacity of 7,000 additional spaces |
Even after construction of new parking facilities in the Wexner Medical Center, some existing parking facilities that currently provide faculty/staff parking will need to be converted to patient/visitor parking facilities to manage the long term growth in demand for patient services. The CTPP recommends the North Cannon, South Cannon, and 9th Avenue East Garages should be converted to patient/visitor garages as the demand for proximate patient parking increases over time.

The University may pursue options for regional off-campus remote parking to address parking shortages on-campus. Off-campus parking resources may include off-campus facilities owned by the University, underutilized commercial or office parking for lease or sale, or seasonal land uses with significant parking reserves during the University’s academic year.

Locations for the University to consider acquiring off-campus parking resources generally include intercept locations near regional freeway interchanges, including in the vicinity of the Ohio State Fairgrounds along I-71 and near the Route 315 interchanges with both Olentangy River Road/North Broadway Street and Olentangy River Road/Goodale Boulevard. Further review and study of the off-campus regional parking options, availability, and cost is required before specific sites can be identified.

**SUMMARY OF PARKING RECOMMENDATIONS**

- Additional parking to support growth and parking losses in the Wexner Medical Center should be located in the Carmack Lot
- Remote Wexner Medical Center Parking currently located at the Buckeye Lots and remote parking for the Academic Core in the Carmack Lots should be swapped to consolidate Medical Center parking in the Carmack Lots.
- Remote parking should be served by new campus shuttle routes connecting to the Wexner Medical Center and a transit center near the Academic Core.
- Long term additional parking should be provided through construction of additional parking facilities as identified in the options on Figure 7.
3.0 EVENT PARKING STRATEGY
THIS PAGE IS INTENTIONALLY BLANK
EVENT PARKING STRATEGY

The University is home to numerous special event venues with an incredibly diverse range of size and function. Records provided by the University indicate that over 3,000 events of various sizes, durations, and intensity are held at the University each year, which equates to an average of about nine events per day.

The Athletic Department schedules a wide range of athletic contests, including massive events such as NCAA football and basketball games at the Ohio Stadium or Jerome Schottenstein Center, respectively. More modest athletics events are held at a host of locations, including St. John Arena, Jesse Owens Memorial Stadium, Bill Davis Stadium, Woody Hayes Athletic Center, French Field House, Ice Rink, and Varsity Tennis Center, among others. With the exception of football games, event attendance data suggests the venues consistently hosting highest average attendance events are the Schottenstein Center, St. John Arena, French Field House, Recreation & Physical Activity Center (RPAC), and the Ice Rink.

Numerous other types of events are held throughout the campus, ranging high-profile concerts at the Schottenstein Center to more moderate and small events that are organized by various departments or groups, including academic departments, the Wexner Medical Center, Student Life, and alumni groups, throughout the University on a daily basis. Several venues host over 100 annual events, including the Ohio Union, Fawcett Center, 4-H, Longaberger Alumni House, Faculty Club, Fred Beekman Park, and Mershon Auditorium/Wexner Center for the Arts. The Oval is also the site of a few events with high attendance.

Table 4 summarizes the frequency of special events at numerous venues on the campus over the course of one year and Table 5 summarizes the typical attendance at these events. It is worth noting that while average attendance for events at venues like the Ohio Union, Fawcett Center, and 4-H Center is relatively low, these venues host many events and may schedule overlapping events.

<table>
<thead>
<tr>
<th>TABLE 4: OSU ANNUAL EVENT FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
</tr>
<tr>
<td>Ohio Union</td>
</tr>
<tr>
<td>Fawcett Center</td>
</tr>
<tr>
<td>4-H Center</td>
</tr>
<tr>
<td>Longaberger Alumni House</td>
</tr>
<tr>
<td>Faculty Club</td>
</tr>
<tr>
<td>Schottenstein Center</td>
</tr>
<tr>
<td>Bill Davis Stadium</td>
</tr>
<tr>
<td>Woody Hayes Center</td>
</tr>
<tr>
<td>Jesse Owens Stadium</td>
</tr>
<tr>
<td>Buckeye Field</td>
</tr>
<tr>
<td>French Field House</td>
</tr>
<tr>
<td>RPAC</td>
</tr>
<tr>
<td>Oval/South Oval</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 5: OSU AVERAGE EVENT ATTENDANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
</tr>
<tr>
<td>Ohio Union</td>
</tr>
<tr>
<td>Fawcett Center</td>
</tr>
<tr>
<td>4-H Center</td>
</tr>
<tr>
<td>Longaberger Alumni House</td>
</tr>
<tr>
<td>Faculty Club</td>
</tr>
<tr>
<td>Schottenstein Center</td>
</tr>
<tr>
<td>Bill Davis Stadium</td>
</tr>
<tr>
<td>Woody Hayes Center</td>
</tr>
<tr>
<td>Jesse Owens Stadium</td>
</tr>
<tr>
<td>Buckeye Field</td>
</tr>
<tr>
<td>French Field House</td>
</tr>
<tr>
<td>RPAC</td>
</tr>
<tr>
<td>Oval/South Oval</td>
</tr>
</tbody>
</table>

- **Total Events**
- **Avg. No. of Attendees**
- **Median No. of Attendees**
The University maintains coordinated parking and traffic management plans for large athletic events at the Ohio Stadium, Schottenstein Center, St. John Arena, French Field House, and the Ice Rink. Events at these locations are supported by surface parking located throughout the Athletics District and in the Stadium/Arena lots, as well as parking in the Agriculture and Veterinary Medicine campuses. A total of 12,685 parking spaces are designated for event parking in online resources and information provided to attendees.

Many of the largest athletic events at these venues occur during the evening, after many faculty/staff and commuters have departed the campus, leaving approximately 8,350 parking spaces available for event parking in these facilities. This estimate is based on estimated parking utilization levels derived from available parking data and brief on-site observations. The CTPP identifies event parking lots according to four tiers based on proximity and convenience for spectators attending events at the Schottenstein Center. The vast majority of this parking is within a 10 minute walk of the Schottenstein Center, though parking spaces in the Buckeye Lots (Tier 4) are located beyond the 10 minute radius. Event shuttles are used to transport spectators parking in this location because of both the distance and accessibility, and as a rule of thumb, shuttles are most appropriate for parking facilities located further than a 10 minute walk from the venue (i.e. generally, Tier 3 and 4 parking locations). (See Figure 8)
The current athletics event parking supply is typically adequate, including for large events at the Schottenstein Center. However, efficient traffic management during large events at the Schottenstein Center can be challenging due to the large groups of pedestrians moving to/from the venue. Several traffic management issues were cited during the CTPP development process:

- Traffic approaching the Schottenstein Center from the east often bypasses available parking in the Lane Avenue Garage and Stadium/Arena lots in favor of finding more proximate, but heavily utilized, parking near the Schottenstein Center.
- Spectators favoring parking spaces most proximate to the Schottenstein Center use both the Fawcett Center, on the east side of Olentangy River Road, and the Agriculture and Veterinary Medicine campus parking, south of Lane Avenue. These spectators routinely cross the street at uncontrolled midblock locations and create potential vehicular-pedestrian conflicts and safety issues.
- Future development planned for the Athletics District will reduce the available parking supply, unless additional parking is constructed or the event management strategy is changed.

Additionally, the University hosts several daytime events throughout the academic year, including the state wrestling championship tournament, which present clear conflicts with daytime commuter parking on the campus. In some cases, other Athletics Department events may be scheduled for the same dates as these daytime events, which can exacerbate the limited parking availability for the entire campus community and visitors. Further detailed review of event scheduling and study of parking availability is recommended to address daytime event parking conflicts. Options may include temporary relocation of faculty/staff parking from event parking lots or off-campus parking with shuttle service for event attendees.

The CTPP addresses event management in the Athletics District by identifying several new or expanded parking facilities to support events, policies limiting parking availability for commuters in higher Tier locations, shuttle service for Tier 3 and 4 parking lots, and guidance for routing traffic to/from event parking. The new parking facilities include expanded parking along the southern part of the Buckeye Lots, expanded parking at the Vivian Lot, and a new parking lot along Kenny Road north of Woody Hayes Drive. These recommended parking facilities would provide a total of 2,400 new parking spaces, all within a 10 minute walk, or less, from the Schottenstein Center. Furthermore, these parking lots provide additional remote parking capacity to generally support the University on a daily basis. (See Figure 9)

To control parking utilization and reserve availability for events, the University should also consider policies limiting commuter parking in Tier 1-3 lots within three hours of events at the Schottenstein Center (i.e., require commuters to depart these lots by 4:00 PM when there is a 7:00 PM event). This policy may be implemented by issuing new parking permit types specific to the Tier 1-3 parking facilities and informing permit holders of their responsibility to park elsewhere during events. Temporary signage at parking lot entrances can be used to inform drivers about event parking requirements and enforcement actions.

More robust traffic management and wayfinding strategies are necessary during large events to direct event traffic to parking facilities along the approach routes and to deter traffic circulation near the Schottenstein Center. Traffic originating from State Route 315 should be guided to parking near Ackerman Road and Lane Avenue, or sent directly to the Stadium/Arena lots. Traffic originating from the east should largely be intercepted along Lane Avenue and directed to the Lane Avenue Garage, stadium/arena parking lots, or west along Woody Hayes Drive to prevent these vehicles from contributing to unnecessary congestion and conflicts near the Schottenstein Center. Representatives from the Schottenstein Center stated that they are pursuing replacement of several temporary variable message signs (VMS) that direct traffic approaching the venue with permanent VMS fixtures.

Event shuttles could be deployed for larger events to aid travel from more distant parking facilities and to accommodate patrons who are uncomfortable or unable to walk longer distances. Shuttles could also help reduce uncontrolled pedestrian activity on critical streets near the Schottenstein Center, particularly on Lane Avenue. Additionally, a median barrier on Lane Avenue between Fred Taylor Drive and Olentangy River Road could also deter uncontrolled midblock pedestrian crossing activity and promote the use of the nearby traffic signals for pedestrian crossings. Detailed evaluation of traffic signal and roadway capacity upgrades to reduce traffic congestion and improve event traffic circulation is recommended for Ackerman Road, Lane Avenue, Olentangy River Road, and Kenny Road. (See Figure 10–15)

Several campus roadway network projects are planned to improve overall traffic circulation and operations during special events. The plan proposes traffic signals at the Borror Drive/Olentangy River Road and Ohio Union Garage/College Road intersections to improve traffic access and egress, as well as manage pedestrian crossing activity, during events. The CTPP supports the planned extension of Schottensten Drive to both Olentangy River Road and Kenny Drive, which will provide alternative routes for event traffic approaching and leaving the area and minimize traffic congestion at existing gateways to the Athletics District.

The University’s Department of Public Safety is involved in the scheduling, coordination, and management of virtually all the large events that have a regional draw and significant impact on the roadway network and parking system. However, smaller events that cannot afford to involve the Public Safety Department are often conducted using an ad hoc approach and may overlap with other moderate and small events. Many of these events occur on weekdays and parking must be managed along with simultaneous academic and Wexner Medical Center parking demands.
The Department of Public Safety and other event managers at the University expressed a desire for several policies and procedures that would help them to address event parking and management issues at the campus, including:

- Central event planning calendar for entire University.
- New system/department to coordinate event planning and calendars between all University departments, including Registrar, Athletics Department, Student Life, and the Wexner Medical Center.
- University-wide policy regarding the thresholds, expectations, and procedures for contacting Public Safety and CampusParc about upcoming events.
- A dedicated source of revenue for event management and traffic control.
- Full-time access to facilities when needing to manage events.
- Variable messaging signs at all public garages so that it is clear where to park for each event and when garage is full.

It should be noted that the visual diagrams and exhibits contained in the CTPP are intended to depict illustrative options as a catalyst for refining event parking and traffic management strategies. These diagrams are not reflective of the significant detail addressed by the Public Safety Department for every specific event and should not be considered prescriptive for future event management.
SUMMARY OF EVENT PARKING RECOMMENDATIONS:

- Construct new or expanded parking facilities to provide more dedicated event parking for the Athletics District
- Implement a refined and enhanced event parking management strategy including directing traffic to specific lots and using additional wayfinding systems
- Add a median barrier on Lane Avenue between Fred Taylor and Olentangy River to encourage pedestrians to cross at signalized intersections versus at uncontrolled mid-block locations
- Establish a central event planning calendar and new system/department to coordinate event planning

FIGURE 10: SCHOTTENSTEIN EVENT PARKING AND SHUTTLE PLAN
FIGURE 11: SCHOTTENSTEIN EVENT PARKING AND SHUTTLE PLAN
FIGURE 12: SCHOTTENSTEIN EVENT PARKING AND SHUTTLE PLAN
FIGURE 14: SCHOTTENSTEIN EVENT PARKING AND SHUTTLE PLAN
4.0 TRANSIT CENTER
TRANSLATION CENTER

A primary goal for the university’s transit system is to reduce traffic impacts from CABS and COTA service. Currently both systems have routes that travel into the campus core. The benefit of this type of service is that it provides a very direct connection to the campus core and reduces the walking distance from the bus stop to the desired destination. The impact of this type of service is that in-vehicle travel time is longer because the route is impacted by and contributes to traffic congestion within the campus core. This congestion impacts travel time and the ability to maintain transit schedules and headways.

Having the routes come to the campus, but not penetrate the core so deeply can have positive impacts on scheduling and travel time. Removing the high volume of transit traffic that currently travels into the campus core will also improve the existing levels of congestion and contribute to an environment that is more pedestrian- and bike-friendly.

The CTPP recommends a transit center, or central location where all routes converge, to provide a destination for multiple shuttles and minimize transit vehicle circulation in the core. Locating the center on the edge of the campus core allows the majority of CABS and COTA transit traffic to access the campus easily, provide for improved transfers, and depart the campus quickly to return to service. The transit center design also provides an opportunity for the university to integrate facilities for biking, car sharing, drop-offs, and information about transportation services.

The CTPP development process addressed discussion and consideration of various options for transit center locations on The Ohio State University campus. Initial thoughts focused on a two hub system that would provide the anchors for a transit “spine” through the center of campus. This concept evolved into an alternative concept of the transit spine as the campus circulator. The two hub system was still achievable, but finding an available site near the Wexner Medical Center posed a significant challenge. This provided the impetus to focus on a single transit center near the academic campus.

Seven (7) locations were initially identified as potential multi-modal center sites during the process (Figure 16). Following analysis of these seven (7) sites, the alternatives were reduced to four (4) locations as shown in Figure 17. Based on further analysis and discussions with a number of stakeholders, the sites were reduced to two (2) locations as shown in Figure 18. Table 6 highlights the pros, cons, and traffic/infrastructure impacts associated with two locations. Based on this analysis and final discussions the 17th Avenue and Tuttle Park Place (RPAC) location was identified as the preferred location for the transit center (see Figure 19).

The transit center provides a location to join a number of transit activities encouraging transit usage on campus and providing an interface for external services such as Central Ohio Transit Authority (COTA) buses and other private transit providers.

The transit center could be developed over time or be integrated into an existing university building, with an initial phase including enhanced bus shelters just north of the RPAC facility.

Transit Center Key Programmatic Elements:

- Bus lay-bys for Campus Area Bus System (CABS), COTA, and private transit
- Variable messaging screens, i.e. bus route updates
- Bicycle parking and connection to bike sharing program
- Car sharing program
- Restrooms

SUMMARY OF TRANSIT CENTER RECOMMENDATIONS

- Develop new Transit Center near the intersection of 17th Avenue and Tuttle Park Place
**FIGURE 16: TRANSIT CENTER SITE OPTIONS (SEVEN LOCATIONS)**

1. **Serves the North Residential District**
   - Provides easy interface with COTA
   - Facilitates walking to academic core
   - Offers opportunity to directly connect with Neil Avenue corridor via new connection between Neilwood and Schoenbaum
   - Serves as an end point to the circulator
   - Easy access for west campus shuttles along Lane Avenue
   - Potential to create improved development area by realigning streets to grid pattern

2. **Does not facilitate walking to campus core destinations**
   - Requires longer circulator travel in mixed traffic
   - Dependent on future development of parking on this site
   - Does not serve North Residential District

3. **Limits future options for the redevelopment of the St. Johns block**
   - Requires longer circulator travel in mixed traffic
   - Does not serve North Residential District

4. **COTA interface challenge**
   - Limits future options for the redevelopment of the St. Johns block
   - Potential to integrate transit support space in existing building
   - COTA interface challenge
   - Requires 17th Extension for improved circulation
   - Facilitates walking to core campus and WMC

5. **Does not serve campus core north effectively**
   - Requires extension of circulator to the west
   - Site constrained by current and future road alignments
   - Long routes for parking shuttles
   - COTA interface challenges
   - Impact to Neil Avenue garage and dropoff operations
   - Does not serve as endpoint for circulator routing
Figure 17: Transit Center Site Options (Four Locations)

1. Neil and Lane Avenues
2. Tuttle Park Place and 17th Avenue
3. Tuttle Park Place and Woodruff Avenue
4. Tuttle Park Place and Lane Avenue
FIGURE 18: TRANSIT CENTER SITE OPTIONS (TWO LOCATIONS)

<table>
<thead>
<tr>
<th>TABLE 6: TRANSIT CENTER OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OPTION A</strong></td>
</tr>
<tr>
<td><strong>TUTTLE PARK PLACE AND 17TH AVENUE</strong></td>
</tr>
<tr>
<td><strong>Pros</strong></td>
</tr>
<tr>
<td>• Drop off location is closer to the center of campus.</td>
</tr>
<tr>
<td>• Location could provide potential to integrate a transit center into PAES building creating a multi-use facility.</td>
</tr>
<tr>
<td>• Facilitates walking to core campus and Wexner Medical Center better than the other option.</td>
</tr>
<tr>
<td>• Extending the Core Campus Circulator to the west and continuing on Cannon Drive to John Herrick Drive will serve the Residential Towers District better.</td>
</tr>
<tr>
<td>• Provides improved access to RPAC and the recreation fields.</td>
</tr>
<tr>
<td>• Site provides opportunity for bicycle amenities closer to the center of campus.</td>
</tr>
<tr>
<td>• Ability to use existing building (PAES) and roadway infrastructure for Transit Center use.</td>
</tr>
<tr>
<td>• Provides improved access to RPAC and the recreation fields.</td>
</tr>
<tr>
<td>• Site provides opportunity for bicycle amenities closer to the center of campus.</td>
</tr>
<tr>
<td>• Ability to use existing building (PAES) and roadway infrastructure for Transit Center use.</td>
</tr>
<tr>
<td>• Provides improved access to RPAC and the recreation fields.</td>
</tr>
<tr>
<td>• Site provides opportunity for bicycle amenities closer to the center of campus.</td>
</tr>
<tr>
<td>• Ability to use existing building (PAES) and roadway infrastructure for Transit Center use.</td>
</tr>
<tr>
<td>• Provides improved access to RPAC and the recreation fields.</td>
</tr>
<tr>
<td>• Site provides opportunity for bicycle amenities closer to the center of campus.</td>
</tr>
<tr>
<td>• Ability to use existing building (PAES) and roadway infrastructure for Transit Center use.</td>
</tr>
<tr>
<td>• Provides improved access to RPAC and the recreation fields.</td>
</tr>
<tr>
<td>• Site provides opportunity for bicycle amenities closer to the center of campus.</td>
</tr>
<tr>
<td>• Ability to use existing building (PAES) and roadway infrastructure for Transit Center use.</td>
</tr>
<tr>
<td>• Provides improved access to RPAC and the recreation fields.</td>
</tr>
<tr>
<td>• Site provides opportunity for bicycle amenities closer to the center of campus.</td>
</tr>
<tr>
<td>• Ability to use existing building (PAES) and roadway infrastructure for Transit Center use.</td>
</tr>
<tr>
<td>• Provides improved access to RPAC and the recreation fields.</td>
</tr>
<tr>
<td>• Site provides opportunity for bicycle amenities closer to the center of campus.</td>
</tr>
<tr>
<td>• Ability to use existing building (PAES) and roadway infrastructure for Transit Center use.</td>
</tr>
<tr>
<td>• Provides improved access to RPAC and the recreation fields.</td>
</tr>
<tr>
<td>• Site provides opportunity for bicycle amenities closer to the center of campus.</td>
</tr>
<tr>
<td>• Ability to use existing building (PAES) and roadway infrastructure for Transit Center use.</td>
</tr>
<tr>
<td>• Provides improved access to RPAC and the recreation fields.</td>
</tr>
<tr>
<td>• Site provides opportunity for bicycle amenities closer to the center of campus.</td>
</tr>
<tr>
<td>• Ability to use existing building (PAES) and roadway infrastructure for Transit Center use.</td>
</tr>
<tr>
<td>• Provides improved access to RPAC and the recreation fields.</td>
</tr>
<tr>
<td>• Site provides opportunity for bicycle amenities closer to the center of campus.</td>
</tr>
</tbody>
</table>

**Cons**

<table>
<thead>
<tr>
<th><strong>Cons</strong></th>
<th><strong>Cons</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• May create longer routes for parking shuttles.</td>
<td>• Requires longer Core Campus Circulator travel in mixed traffic.</td>
</tr>
<tr>
<td>• Does not provide easy interface with COTA, Megabus and other non-university shuttles.</td>
<td>• Limits future options for the redevelopment of the St. John site.</td>
</tr>
<tr>
<td>• Requires the extension of the Core Campus Circulator to the west or transit riders to walk to Nell Avenue.</td>
<td>• Does not serve North Residential District or students living north of Lane Avenue as well as previous options.</td>
</tr>
<tr>
<td>• May limit future options for a cogeneration plant that is proposed for this site.</td>
<td>• Creates an interference/safety issue with the traffic light at Lane &amp; Tutle.</td>
</tr>
<tr>
<td></td>
<td>• Requires the extension of the Core Campus Circulator to the northwest or transit riders to walk to Woodruff.</td>
</tr>
<tr>
<td></td>
<td>• Parking Concession impact – potential compensation required to remove parking spaces.</td>
</tr>
<tr>
<td></td>
<td>• Requires longer Core Campus Circulator travel in mixed traffic.</td>
</tr>
<tr>
<td></td>
<td>• Limits future options for the redevelopment of the St. John site.</td>
</tr>
<tr>
<td></td>
<td>• Does not serve North Residential District or students living north of Lane Avenue as well as previous options.</td>
</tr>
<tr>
<td></td>
<td>• Creates an interference/safety issue with the traffic light at Lane &amp; Tutle.</td>
</tr>
<tr>
<td></td>
<td>• Requires the extension of the Core Campus Circulator to the northwest or transit riders to walk to Woodruff.</td>
</tr>
<tr>
<td></td>
<td>• Parking Concession impact – potential compensation required to remove parking spaces.</td>
</tr>
</tbody>
</table>

**Traffic/Roadway/Infrastructure Impacts**

<table>
<thead>
<tr>
<th>Traffic/Roadway/Infrastructure Impacts</th>
<th>Traffic/Roadway/Infrastructure Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 17th Avenue would need to be extended to Cannon Drive to make this option viable.</td>
<td>• Provides difficulty for bus pull-off with existing right turn lane onto Tuttle Park Place.</td>
</tr>
<tr>
<td>• 17th Avenue extension has many other university benefits including: relieving traffic congestion exiting Tuttle Park and Northwest Garages, allowing better access to RPAC and the recreation fields, better utilization by Public Safety during Stadium events, etc.</td>
<td>• 17th Avenue would need to be extended to Cannon Drive to alleviate vehicular congestion on Tuttle.</td>
</tr>
<tr>
<td>• Impacts need to be studied further - significant infrastructure corridor south of the Stadium and on Neil between Woodruff and 19th.</td>
<td>• Impacts need to be studied further - significant infrastructure corridor south of the Stadium and on Neil between Woodruff and 19th.</td>
</tr>
</tbody>
</table>
Figure 19: BUS LAY-BYS FOR CAMPUS AREA BUS SYSTEM
5.0 TRANSIT SYSTEM
THIS PAGE IS INTENTIONALLY BLANK
**INTRODUCTION**

Given the geographic scale of the campus, The Ohio State University Department of Transportation and Traffic Management (TTM) operates an extensive system of shuttles known as the Campus Area Bus Service (CABS). CABS moves the campus community within the campus boundaries and adjacent neighborhoods. TTM supplements this system with accessible transportation for members of the community with personal mobility limitations.

The changes being proposed for parking on The Ohio State University campus in response to the realignment of Cannon Drive and general campus population growth requires an analysis of whether the CABS system can respond. The university’s Framework Plan promotes a goal of “park once” when arriving to campus. This type of strategy requires a robust alternative transportation system, which includes transit service that can efficiently transport individuals from parking facilities to various destinations on campus.

Adapting the CABS system to accommodate planned campus expansion and changes are is also critical to keeping CABS a viable and successful alternative to driving. For instance, residential expansion in the North Residential District, expansion of the Wexner Medical Center and other medical services around the campus, and growth along Kinnear Road in the Western Lands requires an understanding of the needs for travel to and from these facilities as well as the magnitude of demand for those services. A thorough understanding of the existing CABS system, usage, and demand are needed prior to developing route alternatives.

**EXISTING SYSTEM**

The CABS system currently provides eight different routes and a patient courtesy shuttle. The bulk of their system is focused on connecting the Buckeye and Carmack parking lots with the academic and medical campuses of the university. CABS also provides frequent service to residential areas along the Summit Street and North 4th Street corridors between East 11th Avenue and East Hudson Street. There are no CABS routes that provide service with a frequency greater than 15 minutes during the day, and most provide better than 10 minute service. (See Figure 20)

Parking facilities are typically centers of significant activity on the campus during both morning and afternoon peak periods. GIS mapping of the parking areas with the greatest utilization provides a preliminary indication of activity centers throughout the campus. Figure 21 and Figure 22 show “heat maps” using color gradients to indicate areas of highest activity (red color range) in contrast to areas of lowest activity (green color range). The activity centers typically correspond to locations where the CABS system focuses its service to provide mobility options for the campus community and provides insight into future planning for campus transit system routing and service characteristics.

TTM collects stop-level ridership and operational information through the use of automatic passenger counters (APC) and their automatic vehicle location (AVL) system. This data provides an understanding of stop-level activity at both the system- and route-scale.

Understanding passenger activity at these scales provides insights into where and how many people are traveling to specific areas of The Ohio State University campus. Mapping these results using geographic information systems (GIS) provides a geographic understanding of major activity centers on the campus. Those locations that show a higher number of boardings and alightings are major activity centers for the campus, and should continue to be served by future transit services. The analysis identified the following locations as major trip generators due to the high number of passenger boardings. These are locations where people access the system:

- Buckeye Lot
- Carmack Lot
- Agricultural Campus
- Mason Hall
- Stillman Hall
- Ohio Union
- Stillman Hall
- 17th & College
- University Hall
- Ohio Union
- Doan Hall
- Hamilton Hall

Locations that displayed high passenger alightings can be considered major destination locations. A review of available CABS data indicates that high alighting locations outnumber high boarding stops. This is explained by the fact that people often choose the stop closest to their destination to alight, while often choosing the stop that shortens their overall trip to board. Stops at the Buckeye Lots and Carmack Lots also appear in the high alighting locations due to the large number of people returning to their cars. The agriculture campus is a major destination in both directions of travel, indicating that people coming from the Carmack and Buckeye parking lots are getting off here as well as people traveling out from the core of the campus. Many locations around the main academic core are major destinations. The Ohio Union as well as locations around the Wexner Medical Center are also key destinations. The CABS stops below are near major destination locations:

- Buckeye Lot
- Carmack Lot
- Agricultural Campus
- Knowlton Hall
- Mason Hall
- Blackburn House
- Watts Hall
- Stillman Hall
- Arps Hall
- 17th & College
- University Hall
- Ohio Union
- Doan Hall
- Hamilton Hall
Combining boardings and alightings helps to identify several major activity centers on the campus. The following locations were identified as the major activity centers, or locations with high concentrations of people, for The Ohio State University campus. (See Figure 23)

- Buckeye Lot
- Carmack Lot
- Agricultural Campus
- Academic Core
- Ohio Union
- Wexner Medical Center

Combining this information with data collected by the Transit Lab, an Ohio State University research group using CABS as a “real-life” laboratory to study aspects related to public transportation, allows for a greater understanding of actual rider flows. They supplement the data currently collected by CABS with on-board surveys to understand passenger flows along each route. Transit Lab data for origins and destinations for the CABS system for the fall of 2012 and spring of 2013 provided information about where riders are traveling once they board at a stop. This information is useful in determining how routes could be restructured to provide more direct travel paths for predominant flows.

An analysis of the passenger origin and destination data from the Transit Lab showed the following critical travel flows on the CABS system. All of these flows are bi-directional and account for the top 10 percent of all the origin and destination pairs studied.

- Buckeye Lot to Wexner Medical Center
- Buckeye Village to Academic Core
- Agriculture Campus to Academic Core
- Carmack Lot to Academic Core
- Carmack Lot to Agriculture Campus
- Carmack Lot to Wexner Medical Center
- Carmack Lot to Ohio Union
- St. John Arena to Campus Core
- East Residential to Campus Core
- Campus Core to South Residential
- Ohio Union to Academic Core

(See Figure 24)

FIGURE 21: ON-CAMPUS WEEKDAY MORNING PARKING ACTIVITY “HEAT” MAP

FIGURE 22: ON-CAMPUS WEEKDAY AFTERNOON PARKING ACTIVITY “HEAT” MAP
Figure 23: CABS Boarding and Alighting

CABS Stops
Total Boarding/Alighting per Stop
- 0–5000
- 5001–25000
- 25001–75000
- 75001–150000
- 15001–250000
- 250001–500000
- 500001–500000

CABS Routes
- Buckeye Village
- Campus Loop North
- Campus Loop South
- Central Connector
- East Residential
- Medical Center Express
- North Express
As recommendations are developed moving forward, these predominant flows should be considered so not to degrade the quality of existing connections. It is important to note that these flows are a result of the existing CABS service and not a true origin and destination study for each rider; the data simply identifies where the preponderance of riders boarded and alighted the existing system. A more detailed origin and destination study could help the University to identify and refine CABS travel patterns and route needs based on the true origins and destinations.

Prior to considering changes to the CABS system it is important to layout some goals for the future system comporting with the University’s priorities for its transportation system and supporting the “park once” philosophy. The goals are intended to guide how the system should be designed, operated, and interact with the other components of the larger transportation system. The following goals were outlined for the CABS system moving forward.

- Provide frequent service that supports the movement of students, faculty, and staff within the campus core.
- Provide frequent transit service that shuttles people directly from parking locations to key destinations on the campus.
- Interface with COTA and other non-University services near the campus edges and encourage regional transit connections.
- Provide transit service that operates on schedule and with reasonable travel times between key origins and destinations.
- Minimize conflicts with general traffic congestion and event-related transportation patterns.

While the existing CABS system does address some of these goals, many of the routes try and address multiple goals and users that may be at conflict with one another. Many of the routes that currently carry people from satellite parking locations travel into the campus core. This route structure can lengthen the trip for some riders and increases the number of vehicles within the campus core. The existing system also accommodates a parking system that does not specify where one should park based on their desired destination, academic or medical. This results in routes that need to meet both needs through multiple routes or routes that serve both user groups poorly. The goals outlined above attempt to address some of the issues associated with the existing route system, and the proposed system is designed to eliminate some of the issues discussed. Based on these goals, three types of routes were envisioned to comprise the CABS system:

- Shuttles connecting the Carmack and Buckeye parking lots with the campus core or Wexner Medical Center.
- Circulator that connects key activity centers around the campus core.
- Routes that connect other areas of the campus or community with the campus core.

Using the existing ridership, origin and destination data, and proposals for parking and roadway improvements, various route
options were developed. Some options considered routing the existing routes through potential transit hubs. This option was ruled out because it creates a lot of duplicative service and results in higher numbers of buses traveling within the campus core. Another option considered was developing a route structure utilizing bus interlining, or using a single bus to operate more than one route. This type of system adds operating complexity, but can eliminate some of the duplicative service in the core. This type of route configuration does have the potential to impact on-time performance because routes become more dependent on how other routes operate. A third option involved a route structure that sent routes into a transit hub and then had them return to their origin. This type of structure reduces duplication of route segments, but can result in greater transfer activity. All options considered above utilized a version of a campus circulator to connect key destinations around the campus core. These options were presented through different workshops to gauge reaction to each and explain the advantages and disadvantages. The following are the results of those discussions.

CAMPUS CORE CIRCULATOR

The majority of movement within The Ohio State University campus occurs within the campus core. This area comprises the academic campus areas north of the Oval, student residences and support buildings south of the Oval down to 11th Avenue, and the Wexner Medical Center campus.

A route that connects the key activity centers identified during the existing conditions analysis with a high service frequency allows for easy movement around the campus. The existing system does this through a combination of various routes all traveling into the campus core. Extracting these routes from the campus core and focusing one route around the core reduces the amount of transit traffic contributing to congestion in the core and promotes a more walkable campus.

The circulator will connect one or more transit hubs where the parking shuttles and campus shuttles would converge. This model provides transit service around the core campus, linking many of the major campus population nodes together while discouraging the need to drive around the campus core, thus supporting the Framework principle of “park once”.

A number of different concepts and routings were reviewed as part of the analysis for the Campus Core Circulator. Each concept had certain strengths and weaknesses. Initial concepts were focused on a multi-hub system, with primary hubs in the academic and medical campus regions. Other concepts were developed incorporating the Ohio Union as a hub. This location was identified as a major activity center for the campus through the ridership analysis.

The CTPP recommends a campus circulator that would originate from a main transit hub near the northern end of the academic campus. The route will then travel around the campus using Woodruff Avenue, College Road, and 11th Avenue, Neil Avenue, Herrick Drive, Cannon Drive, and 17th Avenue. This routing connects the academic campus with the Ohio Union and the WMC. This circulator concept provides a connection to all of the major destinations within the campus core with a five minute frequency during the majority of the day. (See Figure 25)
Multiple bus stops occur along the routes.
**PARKING SHUTTLES**

The goal of the parking shuttles is to quickly transport people parking in the Carmack and Buckeye parking lot locations to their destination on the campus. Based on the parking analysis, there are two types of commuters parking in these locations: academic and medical. Currently, the majority of the parkers associated with the Wexner Medical Center are located in the Buckeye Lots. There is a Wexner Medical Center shuttle that travels directly from the Buckeye Lots to the Wexner Medical Center. This service is frequent during the day, running every 10 minutes. This is critical for these parking shuttles to eliminate the potential for users to wait long times to be transported to their final destination. There is also a shuttle that connects the Buckeye Lots to the academic campus. The Buckeye Village route also stops in the Buckeye Lot prior to traveling through the Buckeye Village. The primary purpose of this shuttle is to connect those residents in the Buckeye Village with the academic campus, but also provides a connection between the Buckeye Lot to the academic campus. This shuttle operates at a lower frequency (15 minutes), and based on the ridership analysis doesn’t appear to connect as many people from the Buckeye Lots to the academic campus.

There are also three shuttles that connect the Carmack Lots to both the academic and medical regions of the campus. The Campus Loop North and South travel from the Carmack Lots and travel around the campus in opposite loops: the North traveling through the academic campus before traveling around the medical campus and the South doing the opposite. There is also the North Express which is a frequent connection between the academic campus and the Carmack Lots. Combined, these three routes provide a relative headway of just over two minutes for users to wait long times to be transported to their final destination. There is also a shuttle that connects the Buckeye Lots to the academic campus. The Buckeye Village route also stops in the Buckeye Lot prior to traveling through the Buckeye Village. The primary purpose of this shuttle is to connect those residents in the Buckeye Village with the academic campus, but also provides a connection between the Buckeye Lot to the academic campus. This shuttle operates at a lower frequency (15 minutes), and based on the ridership analysis doesn’t appear to connect as many people from the Buckeye Lots to the academic campus.

The displacement of roughly 2,600 parkers from the Cannon Drive lot near the Wexner Medical Center associated with the realignment of Cannon Drive has created a need to accommodate more parkers remotely. Numerous scenarios were explored for accommodating the additional parking demand. The CTPP recommends shifting all remote satellite academic campus parking to the Buckeye Lots and re-route all of the remote satellite Wexner Medical Center parking to the Carmack Lots. This change requires a modification in the shuttle routes serving the Carmack and Buckeye parking lots.

The Carmack Express Shuttle will provide a frequent and fast connection between the Carmack Lots and the Wexner Medical Center. The route will travel through the Carmack Lots, east along Woody Hayes Drive, south along John Herrick Drive, south along Cannon Drive, and then make a counter-clockwise loop around 12th Avenue, Neil Avenue, and John Herrick Drive. This counter-clockwise movement through the medical campus was determined to be the best from an operations perspective. The routing provides effective access and connections to various locations within the Wexner Medical Center. Headways for this route were calculated based on demand calculated from projected parking lot loading. Based on these figures, this shuttle will need to provide a frequency of three and a half minutes during the peak (5:30 am – 9:30 am and 3:30 pm – 7:30 pm) time period.

The Buckeye Express Shuttle will provide a similar connection between the Buckeye Lot and the academic campus. The route will travel through the Buckeye Lot, south along Fred Taylor Drive, east along Woody Hayes Drive/Woodruff Avenue, and then into a proposed transit center located within the academic core. The route will operate with a six minute frequency during the peak time periods (7:00-10:00 AM and 4:00-7:00 PM). (See Figure 26)

**CAMPUSS SHUTTLES**

The parking shuttles do not provide connections to many of the other key destinations within and around The Ohio State University campus. The CTPP recommends campus shuttles that will provide service within and around the campus with multiple stops. These shuttles will serve functions associated with both the academic campus and the medical campus. Frequency for these routes will not be as high as the parking shuttles due to demand and expectations for the type of service. An additional option could be to allow some or all of the parking shuttles to extend beyond the transit hubs into the campus, reducing the need to transfer. This option would reduce the need to transfer to a Campus Shuttle or the Circulator, but would begin duplicating service and adding to the number of vehicles traveling within the core. The following is a description of the campus shuttles:

The **East Residential Shuttle** will operate much like the existing East Residential route. The routing will continue to serve off-campus housing along Summit Street and 4th Street between 11th Avenue and Hudson Street. Instead of penetrating deep into the campus and accessing the academic core, the route will instead turn around at the Ohio Union. Service frequencies will remain similar to the existing service.

The **North Campus Shuttle** will provide service to many of the areas covered by the existing Buckeye Village Shuttle. The route will begin at the Service Annex and travel north along Kenny Road, turning east along Ackerman Road, then south onto Fred Taylor Drive, east onto Defiance Drive (serving Buckeye Village), then south onto Olentangy River Road, west onto Lane Avenue, south onto Fyffe Road, east onto Woody Hayes Drive/Woodruff Avenue, and into the proposed transit center. The service will retain the Buckeye Village frequency during the peak time period of 15 minutes.

The **Medical Center Shuttle** will provide a connection between the existing medical and veterinary facilities affiliated with The Ohio State University. The route will connect the Wexner Medical Center, the Morehouse Medical Plaza, and the Ackerman Complex. It will serve staff, patients, and visitors in linking various medical facilities. The route will begin at the Wexner Medical Center along 10th Avenue and head north along Cannon Drive, turn west onto John Herrick Drive, west onto Woody Hayes Drive, south into the Morehouse facility, then travel north along Kenny Road, before turning east onto Ackerman Road and into the Ackerman complex. The service will provide 15 minute service throughout the daytime hours (7:30 am – 7:30 pm).
FIGURE 26: PARKING SHUTTLES
The Ackerman Express Shuttle will provide a direct connection between the Ackerman Complex and the Wexner Medical Center via the Veterinary Medical campus. This shuttle will allow staff to travel between the two facilities from the two facilities to travel back and forth while also providing a connection to the Veterinary Medicine campus. The route will begin at the Ackerman Complex and travel south along Fred Taylor Drive and Fyffe Road, west along Woody Hayes Drive, south along John Herrick Drive (stopping at the Veterinary Medicine campus), south onto Cannon Drive, east onto 12th Avenue, stopping at the hospital before returning north onto Neil Avenue, and west onto John Herrick Drive. The service will operate with a 30-minute frequency during the daytime hours.

The Western Lands Shuttle will provide a new connection to University functions along Kinnear Road. These buildings provide support and research functions for the University. Currently, the College of Engineering is providing shuttle service with a passenger van from the Kinnear Road area. The new route will begin at the location of the proposed transit center in the academic campus and travel west along Woodruff Ave/Woody Hayes Drive, turning south onto Kenny Road, and west onto Kinnear Road. The route will provide a 15-minute service frequency from 7:30 am to 10:00 pm. (See Figure 27–33)

ADDITIONAL SHUTTLES

Travel demand on the campus reduces dramatically during the late night hours, but there is still a need to provide transportation services due to the 24-hour nature of some activities on campus and to provide a safe and secure connection to parking areas outside the campus core. A flexible route service is proposed to accommodate these trip needs. This type of service will cover the campus with a small fleet of vans when the primary CABS fixed routes do not operate. A flex route service model allows CABS to provide service to a relatively large, low-density area. It provides access to many areas of the campus when demand is low. There are many models and technologies available to provide a high-quality flexible route service. The combination of AVL automatic vehicle location (AVL) technology allows riders to track when a vehicle is approaching, improving perceptions of safety. Depending on the model selected, dispatching requirements may be reduced when compared to an on-demand type service.

In addition to the shuttle service provided during the daytime hour, paratransit services will need to be provided for the campus population who fixed-route service is not a viable option. CABS currently provides on-demand paratransit service to all faculty, staff, and students with a permanent or temporary disability. This service will need to be continued to provide transportation for individuals who can’t use the fixed-route system. Efforts to improve the accessibility of the fixed-route system may reduce the demand on paratransit service moving forward.

COTA

There are a number of different COTA routes that currently serve the campus. These routes connect both commuters and area residents to locations on both the medical and academic campuses. COTA is currently undergoing a major study of bus routes. While specific routes for the COTA buses that interact with the Ohio State University campus weren’t developed, concepts about how the routes arrive and depart the campus were discussed. In an effort to reduce the number of vehicles currently traveling within the campus core and to reduce duplication of services between COTA and CABS, it was suggested that COTA buses utilize other nearby streets. These include: Cannon Drive, 11th Avenue, Neil Avenue south of 11th, High Street, and Lane Avenue. Utilizing these streets will allow COTA to avoid the congested streets within the campus core, improving transit operations. (See Figure 34)

SUMMARY OF TRANSIT SYSTEM RECOMMENDATIONS

- Implement Campus Core Circulator
- Adjust Parking Shuttle Routes to Carmack and Buckeye Parking lots so shuttles provide a direct connection between the Carmack lot and the Wexner Medical Center and Buckeye lot and the Academic Core
- Provide Enhanced Bus Shelters in the Carmack and Buckeye Lots
- Adjust other Shuttle Routes to support the planned Transit Center, Campus Core Circulator and Wexner Medical Center.
- Expand Fleet of Buses to support increased transit system requirements.

The composite transit system provides comprehensive, efficient and cost-effective connectivity across campus, meeting the needs of all campus users including faculty, staff, students, and visitors. The proposed system creates a safer environment by removing transit from 17th, 18th and 19th Avenues where there is heavy pedestrian and bicycle traffic. Safety is also enhanced by connecting to non-University transit operators at the edges of campus, reducing bus traffic on campus streets and minimizing schedule delays for all service. Paratransit vehicles will continue to operate as needed throughout campus.
FIGURE 27: ACADEMIC CAMPUS SHUTTLES
Note: Multiple bus stops occur along the routes.
Figure 29: Campus Services to Transit Center Shuttle

Note: Multiple bus stops occur along the routes.
Note: Multiple bus stops occur along the routes.

FIGURE 30: KRC TO TRANSIT CENTER SHUTTLE
Note: Multiple bus stops occur along the routes.
FIGURE 32: COMPOSITE TRANSIT ROUTES
FIGURE 33: WEXNER MEDICAL CENTER TRANSIT LOOP
Figure 34: COTA and Other External Bus Services Access to University
6.0 CAMPUS STREET NETWORK
Regional access to the campus is provided primarily by State Route 315 for north-south vehicular traffic. Access to State Route 315 is provided at a series of interchanges located on Cannon Drive, Kinnear Road, Lane Avenue, and Ackerman Road. Additionally, I-71 is located to the east of the campus and is accessible via 5th Avenue, 11th Avenue, 17th Avenue, and Hudson Street. Both State Route 315 and I-71 provide connectivity to the greater Columbus area and the interstate freeway system serving Columbus. The arterial highway system serving the University is comprised of several streets providing general north-south access, including High Street, Olentangy River Road, Kenny Road, Neil Avenue, Fourth Street and Summit Street. Several streets providing general east-west access, include 5th Avenue, King Avenue, Kinnear Road, 11th Avenue, Woodruff/Woody Hayes, Lane Avenue, and Hudson Street.

Geo-coded residential data for off-campus parking permit holders was used to develop a baseline understanding of the primary routes used by automobile commuters to the University. The data was used to establish “commute-sheds” and identify the major regional roadways attracting the most trip activity to and from the campus. Records related to a total of 39,593 parking permit holders were reviewed and indicated over 30,000 commuters (76 percent of the commuter population) live within 20 miles of the campus. Based on this data, Table 7 summarizes the percentages of commuter traffic served by various primary routes to the University. (See Figure 35 and Figure 36)
TABLE 7: THE OHIO STATE UNIVERSITY COMMUTER TRAFFIC DISTRIBUTION

<table>
<thead>
<tr>
<th>Roadway/Route</th>
<th>Direction of Approach</th>
<th>Traffic Distribution %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route 315</td>
<td>North</td>
<td>34.2%</td>
</tr>
<tr>
<td>Route 315</td>
<td>South</td>
<td>37.6%</td>
</tr>
<tr>
<td>High Street</td>
<td>North</td>
<td>4.0%</td>
</tr>
<tr>
<td>High Street</td>
<td>South</td>
<td>3.6%</td>
</tr>
<tr>
<td>Kenny Road</td>
<td>North</td>
<td>3.3%</td>
</tr>
<tr>
<td>Olentangy River Road</td>
<td>North</td>
<td>1.5%</td>
</tr>
<tr>
<td>West Lane Avenue</td>
<td>West</td>
<td>6.5%</td>
</tr>
<tr>
<td>East Hudson Street</td>
<td>East</td>
<td>2.4%</td>
</tr>
<tr>
<td>11th Avenue</td>
<td>East</td>
<td>1.5%</td>
</tr>
<tr>
<td>11th Avenue</td>
<td>East</td>
<td>2.5%</td>
</tr>
<tr>
<td>17th, via local streets</td>
<td>East</td>
<td>3.5%</td>
</tr>
<tr>
<td>Route 670/I-70, via local streets</td>
<td>East</td>
<td>1.0%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>100.0%</td>
</tr>
</tbody>
</table>

This data highlights the major role State Route 315 plays providing regional access to the campus. The majority of campus traffic uses several north-south routes to access the campus directly or to access other regional highways. It should be noted that driver survey data was unavailable, so this analysis is based on the aggregated commuter residence location data and assumptions regarding driving route desirability and preferences. In general, preference was given to the regional freeway system for traffic accessing the campus and use of local streets was generally dependent on route distance and typical travel times. This data does not account for all trip activity to the campus, specifically local, service, transit, and patient/visitor trips.

The campus core, east of the Olentangy River, is the historical center of activity and greatest density within the campus. The campus street network in the core is comprised of an urban grid of streets. Neil Avenue, Woodruff Avenue, College Road, and 12th Avenue represent the primary campus streets that define and provide circulation throughout the campus core. To the west of the Olentangy River, the road network is more suburban and generally characterized by longer block lengths, wider cross-sections, and higher vehicle speeds. Both Woody Hayes Drive, Fred Taylor Drive, and Kenny Road are representative of the roadway character west of the river. Connections between the regions of campus east and west of the Olentangy River are provided via Lane Avenue, Woody Hayes Drive, John Herrick Drive, and King Avenue.

PREVIOUSLY PLANNED ROADWAY PROJECTS

The University has a conceptual design for relocating Cannon Drive between John Herrick Drive and King Avenue to improve the roadway alignment, implement new floodplain management strategies, provide additional open space, and enable future development in the WMC. As part of this project, Cannon Drive will be shifted slightly to the west and existing intersections along the road will be reconstructed or reconfigured. Existing parking along Cannon Drive will be eliminated, which will reduce some trip activity in the Wexner Medical Center region, but the overall function and connectivity of the roadway will be maintained. Future projects will continue the Cannon Drive re-alignment from John Herrick Drive to Woody Hayes Drive, then eventually to Lane Avenue. (See Figure 38)
The 2010 Framework Plan highlighted several other potential long-term roadway network projects for the University to pursue, including:

- Extend Kinnear Road across the Olentangy River, via a new bridge connection to the newer John Herrick Drive on the east side, and decommission the aging Herrick bridge.
- Reconfigure the State Route 315 interchange at Kinnear Road to provide more direct access between State Route 315 North and the WMC.
- Realign Olentangy River Road to provide additional open space and improve traffic progression.
- Restore the campus street network to bolster the grid network, provide more direct connections between campus streets, and enhance wayfinding.
- Pedestrianize the campus core by limiting automobile access to the Oval and ‘ladder streets’ area (17th, 18th and 19th Avenues) during the weekday class schedule.
- Realign a portion of State Route 315 along the existing railroad alignment to enhance access design and enable new development opportunities on the west side of the river.

The Framework Plan recommendations generally provide the basis for development of CTPP strategies and recommendations. (See Figure 38)
NEAR TERM CAMPUS STREET PLAN

The CTPP identifies several roadway projects that are necessary to address transportation challenges at the University, addressing five elements: new road segments, improvements to existing roadways, new bridges, intersection improvements, and corridor enhancements. The near term campus street improvement projects are largely focused on the core campus, where vehicle circulation is constrained and the need for expanded transit service are greatest. The campus street recommendations are also intended to support the campus transit system recommendations to implement a Campus Core Circulator service, operate additional CABS shuttle service to parking locations, and construct a new transit center. (See Figure 39)

The key near-term improvements (within five years) recommended by the CTPP to address vehicle circulation, transit operation, and pedestrian/bicycle safety issues include:

- Manage traffic access to the campus core ‘ladder streets’
- Construct new roadway segment on Neil Avenue to complete the Campus Core Circulator
- Extend 17th Avenue to Cannon Drive
- Extend 17th Avenue to High Street
- Convert 11th Avenue to two-way traffic between High Street and Neil Avenue
- Construct a traffic signal at the intersection of Lane Avenue at Carmack Road
- Construct traffic signals at the Ohio Union Garages on College Road

The Managed Streets Plan, Campus Core Streets improvements, and 17th Avenue extension to Cannon Drive projects will address several of the 2010 Framework Plan’s goals. These projects are described in greater detail in the following sections.

FIGURE 39: NEAR TERM ROADWAY IMPROVEMENTS
The 17th Avenue extension to High Street has been contemplated by the University in previous planning efforts. This project will provide an additional point of access/egress for traffic along the High Street corridor and help to reduce traffic congestion on other campus roadways intersecting High Street. The combination of extending 17th Avenue to both High Street and Cannon Drive will also establish a new east-west alternative transportation spine through the campus core and potentially reduce some traffic burdens on 12th Avenue and Woodruff Avenue.

Converting 11th Avenue to allow two-way traffic flow will encourage greater use of the 11th Avenue corridor off-campus as a regional access route to the University. This project will establish a better connection between I-71 and the Wexner Medical Center.

Additionally, the University should consider constructing new traffic signals at the Union Garages North and South driveways on College Road. The purpose of these traffic signals would be to provide clarity to both motorists and pedestrians during peak activity periods and provide efficient traffic egress from the garages. These traffic signals may be designed for actuated operation when traffic delay and queuing exiting the garages exceeds acceptable thresholds.

**MANAGED STREETS PLAN**

The CTPP recommends implementing a Managed Streets concept for 17th, 18th, 19th and Woodruff Avenues (also referred to as the ‘ladder streets’), between College Road and Neil Avenue (see Figure 40). The management plan would improve pedestrian and bicycle safety in this denser portion of the campus and allow for a smoother flow for the Campus Core Circulator. It is anticipated that the management of these streets for non-essential vehicles would be during peak academic activity. During this time, non-essential vehicles would be prohibited from using these streets and only the CABS buses, essential service and authorized vehicles would be allowed to enter. During off-peak times, these streets would be open to all traffic and parking may be permitted on some streets.

The Managed Streets concept will help the University to address issues raised by stakeholders regarding conflicts between numerous transportation modes in the campus core, including automobiles, buses, service vehicles, pedestrians, bicycles, other non-motorized users. By limiting vehicular traffic on the managed streets, bicyclists will likely feel more comfortable riding in the street, which should reduce pedestrian-bicycle conflicts on the sidewalks and other roadside areas. The University is also pursuing a centralized Storage & Receiving operation that will allow the University to minimize service/delivery activity in the campus core by consolidating deliveries using the University fleet and scheduling management. (See Figure 41)

There are a number of techniques available to manage the vehicular traffic on these streets. They can be as simple as installing signs indicating when traffic is prohibited, supported by enforcement of the restrictions. More robust access control equipment includes installing bollards or gates, with access provided by either an automated credential system or manual checks. Different techniques may be employed depending on the streets’ function and level of vehicular traffic. Initial vehicle management may be achieved by installing signs before determining if additional measures are required. (See Figure 41)
Figure 41: Access Control Techniques

- Signage
- Bollards
- Gates
CAMPUS CORE STREET ENHANCEMENTS

The CTPP recommends several campus street enhancement projects to support access for the planned Campus Core Circulator service to a proposed transit center and improve multimodal circulation within the campus core. Specifically, portions of Neil Avenue and 17th Avenue are proposed to be extended or improved to facilitate transit, provide alternative vehicular connections, and improve bicycle movement. The following sections summarize these campus core projects. (See Figure 42)

A: NEIL AVENUE: SOUTH OF WOODRUFF AVENUE

As recommended in the Framework Plan, re-establishing the Neil Avenue road segment between 19th and Woodruff Avenues will transform the current pedestrian plaza between Knowlton Hall and Hitchcock Hall. The road segment is proposed to be 30 feet wide to match the width of Neil Avenue south of this area. The road would be designed to carry transit, limited service vehicles, and bicycle traffic only. There is ample width in this area to provide generous sidewalk space for pedestrians. A key consideration will be the re-design of the stairs to Hitchcock Hall allowing space for the road while still meeting the egress and accessibility requirements for the building. (See Figures 43 - 46)

The segment of Neil Avenue located south of 17th Avenue will be restricted to allow only transit vehicles, limited service vehicles, and bicycles. The roadway will provide two 12.5-foot lanes to allow transit vehicles to travel through this segment in both directions and shuttle stops will be provided in close proximity to the Thompson Library. Some modification of the curb limits and roadside features may be necessary to accommodate this cross-section and a key consideration will be to maintain adequate access to the Thompson Library. Sharrow pavement markings will indicate that bicycle traffic is allowed on the street.

B: 17TH AVENUE: OHIO STADIUM

The CTPP recommends a new 17th Avenue roadway segment between Tuttle Park Place and Cannon Drive to provide another route for vehicular traffic to exit the Tuttle and Northwest Garages and enable additional parking facility construction in the future. Currently, traffic exiting from the Tuttle and Northwest Garages headed to the west or south is effectively forced along Tuttle Park Place to the congested intersections at Woodruff Avenue and Lane Avenue. The planned 17th Avenue connection would allow vehicles to efficiently exit the campus to the south and use the more direct ramp connection to State Route 315 south from Cannon Drive. A potential new ramp connection to State Route 315 northbound from Cannon Drive should also be studied. (See Figure 47–49)

In addition, the 17th Avenue segment would provide an attractive road connection including wide sidewalks and a shared-use path along the south side of the street to support a direct pedestrian and bicycle connection between the Olentangy Trail and the campus core. This roadway can be managed by the university’s Public Safety Department during events at the stadium and may provide a useful location for additional transit service to the stadium or staging emergency response and athletic vehicles.

C: SOUTHERN SECTION OF NEIL AVENUE

The Neil Avenue segment between John Herrick Drive and 11th Avenue currently supports three lanes of traffic. This area could be widened to four lanes to allow for transit only curb lanes and center lanes for vehicular traffic. The northbound side of this roadway segment is currently wide enough to accommodate the plan, but the northbound left-turn lane would need to be repurposed and some on-street parking would be eliminated. The southbound side of this roadway segment would require widening to accommodate both vehicular and transit lanes.

Alternatively, it is feasible to run the transit in mixed traffic for this segment, similar to the conditions on Neil Avenue south of campus, College Road, and 11th Avenue. This strategy would minimize the costs and impacts of widening the roadway, but the major drawback is the potential for traffic congestion to impact transit operations and service reliability. (See Figure 50–52)
FIGURE 43: NEIL AVENUE TRANSIT SPINE
FIGURE 44: NEIL AVENUE - SOUTH OF WOODRUFF

6-10
FIGURE 45: NEIL AVENUE - SOUTH OF WOODRUFF - BEFORE
FIGURE 46: NEIL AVENUE - SOUTH OF WOODRUFF - AFTER
FIGURE 47: 17TH AVENUE
FIGURE 48: 17TH AVENUE SECTION
FIGURE 49: 17TH AVENUE BEFORE AND AFTER
FIGURE 50: SOUTH NEIL AVENUE TRANSIT SPINE

6-16
FIGURE 51: NEIL AVENUE - SOUTH NEIL
FIGURE 52: NEIL AVENUE SOUTHERN SECTION BEFORE AND AFTER
LONG TERM/REGIONAL STREET NETWORK PLAN

The CTTP identifies several long term roadway projects to improve access and circulation both within the campus and on streets accessing the campus. These projects are classified as long term projects because they are generally dependent on planned campus development projects and/or will require significant capital to complete. These projects include:

- Connect and realign Schottenstein Drive between Olentangy River Road and Fred Taylor Drive
- Extend Schottenstein Drive from Fred Taylor Drive to Kenny Road
- Construct an access ramp from 12th Avenue to State Route 315 north
- Connect John Herrick Drive to Kinnear Road and realign Olentangy River Road
- Extend Carmack Road to the south to connect Lane Avenue to Kinnear Road on west campus

(See Figure 53)

The Schottenstein Drive extension project was identified in the Athletics District Framework plan to provide a roadway connection between Olentangy River Road and Kenny Road. This project is intended to provide an alternative access/egress route for event traffic in the Athletics District. The planned roadway would provide direct access to Kenny Road from the Athletics District, allow access for event traffic to the State Route 315 interchanges from the west side, and relieve some of the existing traffic congestion on Fred Taylor Drive, Ackerman Road, and Lane Avenue. This project requires a tunnel under State Route 315 and impacts several service and administrative buildings along Kenny Road.

Access to State Route 315 north from the Wexner Medical Center is inconvenient and requires drivers to travel on several campus streets to access Lane Avenue or cross the river at King Avenue by driving south. A new access ramp located at the Cannon Drive/12th Avenue intersection would provide direct access to State Route 315 north for traffic exiting the WMC. An existing access ramp to State Route 315 South is provided at this location and topography and interchange geometry appear conducive to constructing the proposed ramp, however this needs to be further studied in partnership with ODOT.

A more ambitious project to provide a new bridge connecting Kinnear Road with Herrick Drive and re-constructing the State Route 315/Kinnear Road interchange was proposed in the 2010 Framework Plan. Conceptual designs for the bridge and interchange project fully re-imagine the interchange and provide access to/from State Route 315 north via Kinnear Road. The plans show the existing Herrick Drive bridge being demolished and Olentangy River Road being re-aligned to maintain north-south continuity. Several existing intersections would be eliminated or reconstructed as part of the project. Further study is needed; however, there are many benefits to connecting the Wexner Medical Center with the research corridor on Kinnear Road and medical facilities/parking west of the river.

The CTTP recommends a roadway extension of Carmack Road south to provide a connection from Kinnear Road to Lane Avenue on the west campus. This project is part of a long term plan to provide more regular street grid throughout the west campus and enable future development and redevelopment of the University's real estate assets.

The University should support off-campus development and roadway improvement projects on 11th Avenue, between the campus and I-71. The South Campus Gateway development was completed at least in part to help establish the 11th Avenue corridor as an important potential gateway to the campus from I-71. The CTTP recommends projects that improve the overall attractiveness of 11th Avenue approaching the campus and potentially to divert traffic that would otherwise use State Route 315 and contribute to existing congestion and conflicts at the campus State Route 315 interchanges. The 11th Avenue corridor provides a direct route to the Wexner Medical Center area for traffic approaching generally from the east and future planning efforts by the University may consider new parking opportunities for Wexner Medical Center staff in proximity to the 11th Avenue corridor, perhaps through acquisition of existing city parking lots.

The CTTP recommends that the University undertake a detailed traffic study of several intersections that either currently operate under constrained conditions or are anticipated to be impacted by planned development/roadway projects. These locations include intersections at the congested State Route 315 interchanges; intersections affected by planned roadway projects along Cannon Drive and Neil Avenue; and intersections on the relatively high-volume arterials streets bordering the campus. The purpose of a detailed traffic study would be to assess the need for and feasibility of implementing traffic control or capacity upgrades at these locations in the future.

Finally, the University should coordinate with the Ohio Department of Transportation (ODOT) to complete a detailed corridor study of State Route 315 in proximity to the campus. This study should focus on traffic operations at the State Route 315 interchanges at Cannon Drive, Kinnear Road, Lane Avenue, and Ackerman Road. The design of the State Route 315 overpasses and adjacent railroad trestles also limits the ability to modify Woody Hayes Drive, Lane Avenue, and Ackerman Road to improve operational capacity and provide multimodal facilities. A primary goal of the study would be to evaluate proposed alternatives for the Kinnear Road extension to Herrick Drive and associated interchange modifications.

Many of the CTTP recommendations involve access to or through the State Route 315 corridor, which is a regional issue managed by ODOT and requires significant funding to address.
FIGURE 53: ALL ROADWAY IMPROVEMENTS
TRAFFIC OPERATIONS ANALYSIS

Traffic operations analyses were conducted for the recommended roadway projects included in the CTPP. These analyses were based on traffic capacity analysis methodologies contained in the Highway Capacity Manual, which is the industry standard for evaluating roadway and intersection traffic operations. The Highway Capacity Manual methodology evaluates the ability for a given intersection to process projected traffic volumes given the planned geometric conditions and traffic control parameters associated with each intersection. The methodology defines the quality of operation for an overall intersection, as well as individual intersection approaches, in terms of “level of service” (LOS) and produces a letter grade ranging from A-F. The range of LOS A to LOS D is generally considered an acceptable operating condition for urban intersections by the City of Columbus, while LOS E to LOS F are generally considered failing conditions.

The CTPP traffic operations analysis was conducted for numerous critical intersections within and bordering the campus during both the weekday morning and evening peak hours. The traffic analysis is generally based on traffic volume data and observations of geometric conditions collected by the University since 2012. The following CTPP roadway and parking plans were incorporated in the analysis:

- Cannon Drive relocation and re-construction
- Parking expansion in the Buckeye Lots
- Parking expansion in the Carmack Lots
- Managed streets concept on Woodruff Avenue
- 17th Avenue extension to Cannon Drive
- Kinnear Road bridge extension to Herrick Drive

The results of the traffic operations analysis indicate that many campus intersections are anticipated to operate at levels of service consistent with or better than existing conditions after completion of one or more of the CTPP roadway projects. In some cases, individual intersection approaches may operate at poor levels of service during peak conditions, but these intersections are expected to operate at overall acceptable levels.

The analysis also highlights intersections that are anticipated to operate at poor levels of service (i.e., LOS E or F). However, the intensity of development and order of completion for the various development and transportation infrastructure projects proposed by the University and CTPP will determine the specific impacts at individual intersections. Given the campus-wide scope of these projects and complexity of establishing an implementation schedule, the CTPP recommends that further detailed evaluation or design of traffic operations/capacity improvements should be conducted for these intersections as the University implements individual development projects in the future.

The following is a summary of locations that the CTPP traffic analysis indicates are likely to operate at poor levels of service under future planned conditions and potential roadway projects to improve operations as these locations:

- Lane Avenue at Tuttle Park Place: provide additional capacity or signal time for northbound right turn lane
- Lane Avenue at High Street: provide additional capacity or signal time for westbound left turn lane, southbound through/right lanes, and/or northbound left turn lane
- Lane Avenue at Carmack Road: provide a traffic signal
- Lane Avenue at Kenny Road: provide additional capacity or signal time for eastbound left turn lane
- High Street at Woodruff Avenue: eliminate southbound right turn lane
- 17th Avenue at Tuttle Park Place: provide all-way stop sign control
- 17th Avenue at Cannon Drive (planned intersection): provide stop sign control on 17th Avenue
- Ackerman Road at Fred Taylor Drive: provide additional capacity or signal time for eastbound right turn lane and/or northbound left turn lane
- Ackerman Road at Route 315 North Ramps: provide additional capacity or signal time for westbound through and/or right lanes
- Ackerman Road at Kenny Road: provide additional capacity or signal time for southbound left turn lane, northbound through lane, and/or westbound right turn lane
- Olentangy River Road at Schottenstein Drive (extension): provide a traffic signal

• Fred Taylor Drive at Schottenstein Drive (extension): provide a traffic signal
• Kenny Road at Schottenstein Drive (extension): provide southbound left turn lane and a traffic signal
• Olentangy River Road at Kinnear Road: provide additional capacity or signal time for eastbound through/right lanes, eastbound left turn lane, and/or northbound left turn lane
• Olentangy River Road at King Avenue: provide additional capacity or signal time for eastbound through/right lane

As noted in the roadway project summary, several of the State Route 315 interchange ramps are included in the locations identified for potential roadway projects. Modifications to these interchange ramps/intersections will likely require an Interchange Modification Study for review by the Ohio Department of Transportation.

The traffic analysis also identified several intersections that are projected to generally operate at acceptable levels of service, but may develop future traffic operations issues as planned projects are completed. The University should continue to review and consider detailed traffic studies at the following locations:
• Lane Avenue at State Route 315 north and south ramps
• Lane Avenue at Cannon Drive (extension)
• Woodruff Avenue at Tuttle Park Place
• Neil Avenue at 17th Avenue
• Neil Avenue at 12th Avenue
• Neil Avenue at 9th Avenue
• Neil Avenue at 8th Avenue
• High Street at 17th Avenue (extension)
• High Street at 11th Avenue (two-way operation on 11th Avenue)

Additional traffic studies for the campus roadway network would likely include localized evaluation of roadway capacity, merge/diverge operations, vehicular delay, vehicular queuing, and intersection capacity constraints. These studies should identify potential operational and/or geometric traffic mitigation measures designed to maintain or improve traffic operations throughout the campus.

SUMMARY OF ROAD NETWORK RECOMMENDATIONS

• Implement Cannon Road Project
• Extend Neil Avenue from 19th Avenue to Woodruff to support the Core Circulator
• Extend 17th Avenue east from Tuttle Park Place to Cannon Drive to support Core Circulator as well as vehicular traffic
• Convert 11th Avenue to a two-way Street to support the Core Circulator
• Implement access control of 17th, 18th and 19th Avenue "Ladder Streets in the Academic Core"
• Extend 17th Avenue from College Road to High Street
• Implement the additional Cannon Drive phases north of Herrick Drive
• Create a connector street from Carmack Lot to Kinnear Road
• Study implementation of Schottenstein Drive Extension
• Study option of adding a ramp connection to Route 315 north-bound from 12th Avenue
• Study implementation of the Herrick-Kinnear Connector
• Perform detailed traffic studies of multiple campus roadway intersections for Traffic Control / Capacity Improvements
7.0 BICYCLE SYSTEM
**EXISTING CONDITIONS**

Bicycling on The Ohio State Campus is considered a reasonable, healthy, and sustainable mode of transportation. The surrounding topography is relatively flat and visual observations suggest that even during the winter months there is substantial reliance on bicycling within the campus. The Ohio State University campus community recognizes the benefits of increasing bicycle activity for commuting trips include a wide range of desirable outcomes for both individuals and the University:

- Bicycling supports a healthy lifestyle.
- Bicycling by commuters reduces traffic congestion.
- Bicycling promotes a sustainable campus transportation system and reduces the overall carbon footprint of the University.

Off-campus resident population data maintained by the University indicates that nearly 12,000 parking permit holders live within five miles of the campus, primarily to the north and west. These individuals represent a significant contingent of the campus community within reasonable cycling distance of the campus that may be able to commute by bicycle more frequently. Commuters traveling further than five miles may also be encouraged to use a bicycle within the campus after parking in a remote location, which comports with the university’s park once policy. The Ohio State University campus recognizes the benefits and importance of increasing bicycle activity for commuting trips include a wide range of desirable outcomes for both individuals and the University.

Numerous types of bicycle facilities are provided throughout the campus. Dedicated bicycle facilities on campus include a shared-use path along the Olentangy River, which is part of the 13-mile Olentangy Greenway Trail network connecting between Worthington Hills Park near I-270 and downtown Columbus. Short segments of shared-use paths are also provided along Olentangy River Road in the Athletics District and connecting the Carmack Lots to North Star Road. Bicycle facilities within the campus core, east of the Olentangy River, primarily consist of on-street shared lane marking treatments (i.e., sharrows) along primary campus streets, including High Street, Lane Avenue, Woodruff Avenue, College Road, and Neil Avenue. 

(See Figure 54) Outdoor bicycle parking is provided at numerous locations throughout the campus core, typically located along sidewalks and near building entrances. A total of approximately 1,000 bicycle parking spaces are provided in the campus core. Concerns expressed about bicycle activity at the University largely fall into two categories: need for improved campus bicycle facilities and desire to reduce bicycle conflicts with pedestrians in the Academic Core. The need for improved bicycle facilities is particularly noticeable west of the Olentangy River, where existing on-street and off-street bicycle facilities are limited and unconnected to one another or to the core campus.

The campus core is the center of a tremendous amount of pedestrian and bicycle activity, particularly during class changes when thousands of students travel between different buildings within a limited timeframe. Significant pedestrian and bicycle activity occurs between the campus core and the North and South Residential Districts throughout the day. Bicycle activity is restricted within the Oval, but otherwise, bicycles are allowed to travel on campus streets and pathways. In particular, the areas surrounding the Oval, the ‘ladder streets’, and the Neil Avenue/17th Avenue intersection are consistently beset by pedestrians and bicycles during class changes. The preponderance of uncontrolled pedestrian activity in the campus core limits maneuverability for cyclists and contributes to conflicts between pedestrians and cyclists throughout the core area.

**PROPOSED BICYCLE PLAN**

The goal for the bicycle plan is to expand and create a clear and safe system for bicyclists to move through campus and connect to regional networks. A combination of improvements including shared roads (sharrows), bike lanes, and shared-use paths is recommended.

The proposed system builds on and expands the existing bicycle network to provide context-sensitive facilities within different regions of campus to create a comprehensive bicycle network. Use of on-street shared lane markings (i.e., sharrows) is recommended throughout the campus core and streets east of the Olentangy River. The use of sharrows throughout the campus core is intended to establish the street as the preferred location for bicycle traffic and reduce potential bicycle conflicts with pedestrian on sidewalks and pathways. These treatments are consistent with and connect to existing facilities on High Street, Lane Avenue, and College Road.

Building on findings from the 2012 Traffic Safety Task Force Report, the bicycle plan recommends treatments in the campus core area to minimize conflicts between automobiles, bicycles, and pedestrians. Several Managed Streets within the campus core (i.e., 17th, 18th, and 19th Avenues) will restrict automobile traffic from entering the core, reducing potential for vehicular conflicts with pedestrians and bicyclists. Bicycle speeds are generally compatible with bus traffic in the campus core, and as
part of the conversion of Neil Avenue to a transitway, bicycles will be allowed on the limited-access portions of Neil Avenue. The bicycle plan recommends a separate shared-use pathway along the proposed 17th Avenue connection to Cannon Drive. Several locations are identified for additional connections to the Olentangy Trail system, including at the proposed 17th Avenue connection.

West of the Olentangy River, the bicycle plan recommends separated bicycle facilities to provide dedicated space for bicyclists on or along roads carrying higher-speed automobile traffic. A network of on-street bicycle lanes and off-street pathways are proposed to complete the connections between existing facilities and provide direct bicycle corridors between off-campus facilities and the campus core.

Shared-use paths along Lane Avenue and Kinnear Road will improve east-west bicycle connectivity, and sharrows on Woody Hayes Drive between Kenny Road and Cannon Drive will support a cycling route between North Star Drive and the campus core. The long term preference for Woody Hayes Drive east of Kenny Road is to provide an off-street shared-use pathway along the south side of the street, but the roadway cross-section is limited by the existing rail trestle and the State Route 315 overpass. Further study of potential interchange/overpass modifications by the Ohio Department of Transportation is required before implementing a separate bicycle facility. Similarly, a critical north-south connection involves the combination of proposed bicycle lanes and a shared use pathway along Kenny Road, which provide dedicated bicycle facilities for the significant campus population residing to the north with on-campus bicycle facilities and supports cyclists of varying skill levels. (See Figure 55–57)

In addition to the bicycle network, providing consolidated and enhanced bicycle storage at key locations around campus is recommended. These locations would support large reservoirs of bicycle parking, repair stations, and in some cases weather protection. The plan identifies numerous sites dispersed throughout the campus core where consolidated bicycle parking facilities, each providing at least 75 bicycle berths, could be located. By providing coverage throughout the campus core, the consolidated bicycle parking facilities can serve several buildings and allow the University to remove some smaller bicycle parking.

A full-service bicycle station is proposed near the Recreation and Physical Activity Center (RPAC). The purpose of a bicycle station is to establish a centrally-located hub for bicycle support services and raise the overall profile of bicycling to the University from off-campus. The bicycle station may provide a combination of services, including:
- Covered and secure bike parking
- Bike rentals
- Bike share site
- Bike repair
- Retail sales and/or food service
- Classes and instruction

The RPAC site is recommended based on its central location, with direct and walkable access to the campus core, proximity to several existing or proposed CABS routes, and ability to support cyclists with showers and lockers available at the RPAC. Through the use of appropriate marketing and programming, the bicycle station can be established as the primary location for a significant number of cyclist commuters to store valuable bicycle equipment and then enter the campus on foot or by CABS. At other universities, bicycle stations are often staffed largely by students, who can serve as some of the best advocates for bicycling to their peers.

Columbus has a regional bike sharing service and several bicycle storage locations throughout the campus are identified as potential bike share station sites. Introducing a bike sharing service to the University can provide the ability for students, faculty, staff, and visitors a viable option for traveling quickly throughout the campus without an automobile. The bike share stations can also be integrated with the regional bike sharing system that allows the campus community to seamlessly travel to off-campus locations using the same system.

**SUMMARY OF BICYCLE NETWORKS RECOMMENDATIONS**

- Implement sharrows, bike lanes and shared use paths as shown on the proposed bicycle facilities figure
- Consider opportunities to develop consolidated and enhanced bike storage facilities in or around the Academic Core
- Coordinate bike parking with planned bike sharing locations
- Develop a Bicycle Station Facility in proximity to RPAC
- Ensure safe connections from the bike network onto the Olentangy River trail
FIGURE 54: EXISTING SHARROWS AND BIKE PATHS
FIGURE 55: PROPOSED SHARRROWS, BIKE LANES, MANAGED STREETS, BUS/BIKE LANES AND SHARED USE PATHS
Bicycle Accommodations Plan

- Existing Sharrow
- Existing Shared Use Path
- Proposed Sharrow
- Proposed Bike Lane
- Managed Street / Sharrow
- Bus/Bike Lane
- Proposed Shared Use Path
- Consolidated and Enhanced Bicycle Storage
- Potential Bikeshare Location
- Preferred Bicycle Station Location
- New Olentangy Trail Connection

FIGURE 56: POTENTIAL BICYCLE STORAGE LOCATION
8.0 PEDESTRIAN SYSTEM
The current pedestrian system on campus consists of an extensive sidewalk and path system within the core campus area east of the Olentangy River. Intersections in the campus core are generally provided with crosswalks, pedestrian signals, and accessible ramps. Pedestrian amenities are more limited west of the river. Sidewalks are absent along many streets and some pathways do not provide continuous connections to other parts of the pedestrian system. Many intersections west of the Olentangy River are not provided with crosswalks or pedestrian signals.

With thousands of students living on-campus and in the residential neighborhoods surrounding the campus, to the north and east in particular, the university experiences periods of significant pedestrian activity in proximity to the campus core. Pedestrians are required to cross several major thoroughfares to enter or exit the campus core, including Lane Avenue, Woodruff Avenue, or High Street. Pedestrian activity in the campus core during class change periods can be overwhelming for the existing pedestrian network and large groups of pedestrians walk in the streets and cross at uncontrolled locations. This activity is particularly acute in Academic Core `ladder streets' area bordered by Woodruff Avenue, Neil Avenue, 17th Avenue, and College Road.

Pedestrian crash data collected by the University indicates that about 20 pedestrian crashes are reported on the campus annually. Crash mapping highlights several high-impact locations, or ‘hotspots,’ with elevated pedestrian crash potential. The crash hotspots include portions of High Street, Woodruff Avenue, Neil Avenue, 17th Avenue, 19th Avenue, and Cannon Drive in the campus core and Wexner Medical Center regions.

The Pedestrian Plan provides recommendations for the core campus that focus on completing the pedestrian network, increasing overall pedestrian safety, and enhancing street crossings in a number of locations. In general, as roadway and building projects are designed and constructed, the University should also prioritize the provision of abundant spaces for pedestrians to move in large groups throughout the campus core.

In the campus core, the recommendations are primarily focused on minimizing vehicle/pedestrian conflicts and improving street crossings. Highlights of the Pedestrian Plan include:

- Managed and restricted automobile access on Woodruff Avenue, 17th Avenue, 18th Avenue, and 19th Avenue to reduce potential vehicle-pedestrian conflicts in the campus core.
- Enhanced crossing treatments, such as pedestrian signals, at the marked crosswalks on Woodruff Avenue between the North Residential District and the campus core.
- A shared-use path along the proposed 17th Avenue connection to Cannon Drive.
- Pedestrian signal upgrades to provide lead or pedestrian scramble phases at key intersections throughout the campus core.

A proposed pedestrian signal at the High Street/14th Avenue intersection.

(See Figure 58)

West of the Olentangy River, the Pedestrian Plan identifies several sidewalk and shared-use pathway connections that should be constructed to provide a complete and comprehensive pedestrian network throughout the campus. The plan recommends sidewalks along Kenny Road, Kinnear Road, Ackerman Road, and Herrick Drive. Planned shared use paths are recommended along portions of Woody Hayes Avenue, Lane Avenue, Olentangy River Road, Fred Taylor Drive, Kenny Road, Kinnear Road, Schottenstein Drive, and Carmack Road. The plan also proposes pedestrian signals at the Olentangy River Road/Borror Drive and Kenny Road/Morehouse driveway intersections to improve pedestrian safety between parking facilities and activity centers.

Additionally, median barrier treatments at multiple locations on Lane Avenue are recommended to minimize uncontrolled mid-block crossing activity on the relatively wide and high-speed roadway. In particular, the segment of Lane Avenue between Olentangy River Road and Kenny Road is a location of significant uncontrolled mid-block pedestrian crossing activity during events at the Schottenstein Center (often after dark) and a median barrier at this location would help to direct pedestrians to signalized and managed crossings at either end of the segment.

**SUMMARY OF PEDESTRIAN NETWORKS RECOMMENDATIONS**

- Expand pedestrian facility network to improve overall campus connectivity, particularly west of the Olentangy River
- Implement managed street plan on 17th, 18th and 19th Streets
- Consider implementing managed street on Woodruff Avenue
- Upgrade or construct new pedestrian signals at key intersections identified in the pedestrian facilities figure
- Install median barrier along Lane Avenue south of the Schottenstein Center
Pedestrian Plan

- Existing Shared Use Path
- Planned Shared Use Path
- Planned Sidewalks
- Install Pedestrian Signal
- Enhanced Crossing -Pedestrian Signal
- Median Barrier

Pedestrian Signal Phasing Upgrade
Lead Phase or Ped Scramble

FIGURE 58: PEDESTRIAN PLAN
9.0 SIGNAGE AND WAYFINDING
SIGNAGE AND WAYFINDING

Signage and Wayfinding is an important element within the overall campus transportation system. There have been recent efforts to further define the Signage and Wayfinding systems (2013 Signage and Wayfinding Plan) to improve the regional signage directing people to campus as well as improvement wayfinding around the campus.

The 2013 Signage and Wayfinding System established three (3) campus areas:
- Athletic Facilities
- Academic Campus
- Medical Campus

The plan requires that vehicular and pedestrian wayfinding be implemented throughout the campus areas. The district identification signs have a campus name at the top with detailed wayfinding information below name. Currently it is unclear if this standard has been adopted by the University and how it may relate to the Campus Park facilities. Currently, the campus wayfinding plan has been implemented and maintained by FOD and WMC with a expected 2014 completion date. Campus Parc is maintaining the same guidelines for the parking facilities.

Based on this information, the following recommendations have been identified as part of the CTTP:
- Identify / transition oversight of the implementation of the signage system to appropriate entity within the OSU organization
- Implement Campus Areas Plans
- Ensure plans for all new roads, parking and shuttles reinforce the Campus Districts identified in the Wayfinding Plan
- Work to align the Medical and Campus Parc Facilities with the Campus Districts
- Work to align planned changes in transit and development of a transit center with Campus Districts
- Incorporate bikeway signage into the public wayfinding sign system such as add a simple icon to accommodate bike routes to connect with the City and CoGo facilities.
10.0 TRANSPORTATION SYSTEM SUSTAINABILITY
TRANSPORTATION SYSTEM SUSTAINABILITY

The basis of a sustainable transportation system are programs and policies designed to minimize single-occupant driving, which is typically the primary contributor of University-related carbon-based emissions and elevated capital, operations, and maintenance investments in transportation and parking infrastructure. The Ohio State University operates a comprehensive transportation system offering numerous forms of alternative transportation and maintaining policies that encourage the campus community to minimize or forgo single-occupant driving to campus.

TRANSPORTATION DEMAND MANAGEMENT PROGRAM

As part of the University’s overall transportation system, these services and policies comprise the University’s transportation demand management (TDM) program. The following is a summary of the TDM program component supporting sustainable transportation at the University:

- Campus Area Bus Service (CABS) operates seven free campus shuttle routes covering virtually the entire campus footprint, as well as off-campus residential neighborhoods to the east and south.
- The Central Ohio Transit Authority (COTA) operates numerous bus routes in and around the OSU campus. OSU partners with COTA to refine routes and share bus stops with the CABS system.
- Typically known as a U-Pass Program, the University subsidizes COTA service to the University that allows students to ride free on COTA bus routes with BuckID and TTM sells discounted monthly passes to faculty and staff.
- CampusParc maintains a website showing parking utilization in all garages on the campus to inform commuters where parking is available in real time.
- Bicycle facilities and programs include:
  - Bike racks located throughout the core campus
  - Covered bicycle parking in some garages
  - 16 bike lockers for rent ($10 per month or $100 per year) at Lane Avenue Garage and Fisher College of Business
  - Air pumps are located at some garages
  - OSU has adopted on-street shared lane markings (sharrows) and Share The Road signage to indicate bicycle routes and promote bike safety.
  - The Olentangy Trail travels through the campus and provides access to areas to the north and south
  - Bike registration program
  - The University contracts with a car sharing service (Car2Go) to provide a total of 45 cars in 11 separate locations on the OSU campus. Car2Go offers a mobile phone application for users to find car locations and availability.
- The University partners with the Mid-Ohio Regional Planning Commission (MORPC) to provide vanpooling to the campus. This program includes a Guaranteed Ride Home service.
- The Office of Student Life offers numerous special services, including:
  - Off-Campus and Commuter Student Engagement program offers Commuter Liaisons to assist commuter students.
  - The Commuter Liaisons operate a Commuter Student Facebook page
  - Free commuter lockers in the Ohio Union and Younkin Success Center.
  - A Commuter Kitchen is located in the Ohio Union.
- A Commuter Meal Plan is available for eating on campus 3-5 days per week.
- The University provides on-campus housing for over 11,700 students, minimizing the need for these students to commute by car. Additionally, on-campus housing capacity will increase by over 3,300 beds when the North Residential District modernization project is complete.

CTPP SUSTAINABILITY OBJECTIVES

The Comprehensive Transportation and Parking Plan supports and furthers the goals outlined in The Ohio State University Sustainability Plan. The sustainability initiative addresses the University’s goals for creating systems that preserve resources and minimize impacts on several interrelated aspects of the University’s operations, including transportation, energy, environment, and waste management. Specifically, the recommendations in the plan address the following sustainability objectives:

- Efficient Use of Existing Resources – The CTPP establishes an improved transit system that will enable drivers to park their cars at one location and then use transit to access multiple destinations on campus, which limits the need to construct additional parking spaces and reduces driving on campus.
- Encourage Use of Transit Systems – By investing in new transit alignments, a transit center, enhanced bus shelters and improved connections between bike routes, parking and transit routes, the campus population will be encouraged to increase their use of the various transit systems serving the campus.
Non-Motorized Transportation – Investing in additional improvements to campus bicycle facilities and the pedestrian network will create safe and convenient systems serving the campus while encouraging healthy lifestyle choices.

Alternative Transportation Programs – Encourage continuation and use of LEFE and vanpool preferred parking, car sharing, bike sharing, and enhanced facilities and route adjustments for regional transit access by COTA.

ADDITIONAL LONG TERM CONSIDERATIONS

The CTPP identifies several additional strategies that the University should pursue to support stewardship of the environmental resources of the campus and surrounding Columbus communities. These strategies include:

- Low impact development techniques should be used in the design of parking, paths or other site improvements including pervious pavements, bio-retention areas, or other green infrastructure systems.
- Transportation facilities should consider incorporating “green” building techniques such as green roofs, use of solar panels, natural ventilation, sun shading or other appropriate design.
- Materials should be selected for new construction, renovation or repair that have long life spans and low maintenance costs.
- As part of future transit system improvements, vehicles with alternative fuel sources or propulsion technologies may be selected to reduce emissions.
11.0 IMPLEMENTATION
Implementation of the CTPP recommendations is anticipated to occur over a number of years in multiple phases and provides a framework for future investment decisions for the university.

**NEAR TERM (PHASE 1) IMPLEMENTATION**

The CTPP’s near term implementation recommendations are focused on supporting the Cannon Drive relocation project, North Residential District project, the university’s Park Once philosophy, and laying the groundwork for priorities first established in the 2010 Framework Plan. The following projects are required to address the near term needs and impacts of potential university development:

- Change the parking assignments at the Carmack and Buckeye lots to support the additional parking demand and address event management requirements.
- Provide enhanced bus shelters in the Carmack and Buckeye lots.
- Add a signal at the intersection of Carmack Road and Lane Avenue to support the additional traffic parking in the Carmack lots.
- Implement changes to the Campus Transit System to support the additional parking demand at Carmack and Buckeye lots including additional transit service and vehicles.
- Address pedestrian safety issues on Woodruff Avenue due to the increase in student population in the North Residential District.
- Convert 11th to 2-way
- Construct new roadway segment on Neil Avenue to complete the Campus Core Circulator route
- Extend 17th Avenue to Cannon Drive (major utility corridor)
- Implement street management

Planning-level cost estimates were developed for Phase 1 to help the university make decisions about implementing specific components of the CTPP recommendations. The estimates are based on actual cost data from previous university projects and other similar transportation project cost data. The Phase 1 cost estimates indicate that the near term transportation projects are likely to cost between $10.8 million and $13 million (in 2014 dollars). Underground utility improvements that may be needed were not assessed as part of this project. Additionally, the cost to operate the transit system will increase as a result of operating expanded and more frequent service, ranging from $2.0 million to $2.5 million annually.

### Table 8: Phase 1 Cost Data

<table>
<thead>
<tr>
<th>Roadway Improvements</th>
<th>Range</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal at Carmack and Lane (by City)</td>
<td>$236,300</td>
<td>$283,560</td>
</tr>
<tr>
<td>Pedestrian Signals on Woodruff</td>
<td>$250,000</td>
<td>$300,000</td>
</tr>
<tr>
<td>17th from Tuttle to Cannon</td>
<td>$6,750,000</td>
<td>$8,100,000</td>
</tr>
<tr>
<td>Convert 11th to 2-Way</td>
<td>$236,300</td>
<td>$283,560</td>
</tr>
<tr>
<td>Neil Connection between Woodruff and 19th</td>
<td>$2,700,000</td>
<td>$3,240,000</td>
</tr>
<tr>
<td>Street Management</td>
<td>$135,000</td>
<td>$162,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$9,936,300</strong></td>
<td><strong>$11,923,560</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transit Facilities and Operation</th>
<th>Range</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhanced Bus Shelters (Carmack/Buckeye)</td>
<td>$1,350,000</td>
<td>$1,620,000</td>
</tr>
<tr>
<td>Transit Center (Temporary) includes site work</td>
<td>$675,000</td>
<td>$810,000</td>
</tr>
<tr>
<td>Transit Vehicles</td>
<td>$7,000,000</td>
<td>$8,400,000</td>
</tr>
<tr>
<td>Incremental Increase in Transit Operations</td>
<td>$1,684,900</td>
<td>$2,021,900</td>
</tr>
<tr>
<td>ITS Upgrades for Expanded Transit Operations</td>
<td>$150,000</td>
<td>$180,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$10,851,900</strong></td>
<td><strong>$13,031,900</strong></td>
</tr>
</tbody>
</table>

Cost Estimate Notes:

- Estimate in 2014 Dollars
- Roadway costs do not include underground utility improvements (if needed)
- Estimates are order of magnitude based on historic cost data and gross unit costs based on conceptual planning
- Soft costs have been included as an additional 35%
- Cost range is based on a 20% contingency
- Changes in cost are subject to further detailed design
The CTPP identifies a number of additional infrastructure strategies to support the transportation recommendations. The Core Campus Circulator may be implemented in stages to accommodate existing user needs prior to completion of new roadway connections or transit facilities. The initial route for the Campus Core Circulator requires construction of the 17th Avenue connection between Tuttle Park Place and Cannon Drive. This connection would not only serve to support the initial Campus Core Circulator route, but it will also provide another route for vehicular traffic to exit the Tuttle and Northwest Garages, offering a more direct connection to State Route 315 south.

Additionally, the University can pursue several access, signage, and wayfinding improvements in the near term. Traffic management on Woodruff Avenue, 19th Avenue, 18th Avenue, and 17th Avenue may be implemented primarily with signage and outreach to inform the campus community. Adoption of the CTPP recommendations for access to the Athletics District during athletics events is primarily dependent on coordination between the Department of Transportation & Traffic Management Department and the Department of Public Safety to implement the appropriate outreach, signage, and management activities to more efficiently direct traffic to parking facilities.

Several projects addressed in the CTPP are anticipated to be completed by the University or City using funding from previously approved projects or outside sources. These projects include the Cannon Drive relocation project, a 17th Avenue connection to High Street, and construction of a traffic signal at the Lane Avenue/Carmack Road intersection by the City of Columbus. The University will need to pursue further coordination with the City of Columbus to establish a two-way traffic pattern on 11th Avenue or purchase the street from the City.
LONG TERM IMPLEMENTATION

There are a number of strategies that have been identified to support the CTPP recommendations, such as new or expanded parking facilities, new road connections, construction of a transit center, pedestrian and bicycle network improvements, and approaches to event management. The implementation plan and sequencing for these projects is dependent on actual long term enrollment/employment growth and further review during the conceptual design and costing processes.

Long term growth in University enrollment and medical services will drive the need and schedule for providing new parking facilities. The lowest cost options include expanded use of remote parking and constructing surface parking. New or expanded surface parking in the Buckeye Lots (expand), Carmack Lots (expand), Vivian Lot (expand), and Kenny Lot (new) all can potentially support the academic mission, medical services, and special events functions of the University at relatively low investment levels, assuming there are no significant environmental impacts.

Constructing new parking structures is significantly more expensive than surface parking, but can provide the greatest parking density in proximity to both the Academic Core and Wexner Medical Center. Significant additional development in the Wexner Medical Center will require a greater parking supply for patients and visitors. This trend suggests that new parking structures within the relocated Cannon Drive development area can serve growing patient activity and also preserve adequate parking for faculty and staff proximate to the Medical Center.

The CTPP identifies several campus roadway projects that the University should begin planning for in the long term to support expanded transit service, new traffic circulation options, and enhanced event traffic management, including:
- Extend Schottenstein Drive from Olentangy River Road to Kenny Road
- Modify the intersection of Borror Drive and Olentangy River Road to provide full access and a traffic signal
- Construct an access ramp from 12th Avenue to 315 North
- Construct a new roadway connection between Lane Avenue and Kinnear Road on west campus
- Extend Cannon Drive modifications from John Herrick Drive to Woody Hayes Drive
- Extend Cannon Drive modifications from Woody Hayes Drive to Lane Avenue
- Construct the Herrick-Kinnear bridge connection

The University should continue to review these projects as regional development plans stemming from the 2010 Framework Plan continue to evolve. The University is encouraged to establish an internal process and schedule to pursue design, approval, and funding for these projects as needed.

Investment in both pedestrian and bicycle facilities throughout the campus represent a relatively low cost approach to improving multimodal transportation comfort and viability. The CTPP recommends a network of improved sidewalks, shared-use pathways, shared-lane markings, and bicycle lanes that will provide continuous connections throughout the campus and support additional non-motorized commuter activity from off-campus residents. Consolidated bicycle parking and bike-sharing facilities represent modest investments to expand bicycle options on campus and integrate the University with the City of Columbus’ regional bicycle network. Constructing a new full-service Bicycle Station is a more expensive investment in multimodal transportation, but will provide a unique and marketable facility to support bicycling commuting.
CONCLUSION / NEXT STEPS

The Comprehensive Transportation and Parking Plan provides a series of recommendations for supporting an efficient and well-managed transportation and parking system. The plan is intended to be a “living” document that should be updated and adjusted as circumstances change or new issues arise. Also, this plan provides a framework for future studies and next steps that should be addressed over the next few years to further refine the recommendations as well as develop more detailed analysis and designs for the Transportation and Parking system. The following provides a list of Next Steps:

Near Term Implementation Actions

- Prepare a detailed plan for the transit system. This plan should be based on the preferred location for the transit center and would identify in detail the routes, schedules, equipment, staffing, and costs to support the proposed transit network.
- Preliminary engineering and design studies for:
  - 17th Street Extension between Tuttle and Cannon
  - Neil Avenue Extension from 19th to Woodruff
  - Conversion of 11th Avenue to two-way traffic
- Preliminary engineering and design studies for proposed Transit Center
- Design and siting of the Enhanced Bus Shelters
- Planning and design of Managed Streets
- Planning and design of Bicycle Station
- Planning and design of new bicycle treatments on Woody Hayes Drive and Kenny Road
- Design for pedestrian signals on Woodruff Avenue

- Traffic analysis for key intersections / potential signal locations
  - Carmack Road at Lane Avenue
  - Olentangy River Road at Borror Drive
  - Ackerman (?)

LONG TERM IMPLEMENTATION ACTIONS

- Undertake a detailed traffic study of several intersections that either currently operate under constrained conditions or are anticipated to be impacted by planned development/roadway projects.
- Coordinate with the Ohio Department of Transportation (ODOT) to complete a detailed corridor study of State Route 315 in proximity to the campus.
- Coordinate with the City of Columbus to establish a two-way traffic pattern on 11th Avenue or purchase the street from the City.
- Review and reevaluate CTPP recommended projects as regional development plans continue to evolve.
- Establish an internal process and schedule to pursue design, approval, and funding for these projects as needed.
CTPP STAKEHOLDER TEAM MEETING NOTES
OSU PARKING UTILIZATION DATA AND MAPPING
FUTURE CONDITIONS PARKING SYSTEM UTILIZATION PROJECTIONS
TRANSIT ANALYSIS RIDERSHIP DATA AND MAPPING
CORE CAMPUS CIRCULATOR CONCEPT DIAGRAMS
CAMPUS STREET CONCEPT DIAGRAMS
OSU CAMPUS SIDEWALK MAPPING
PEDESTRIAN MOBILITY AND SAFETY HOTSPOTS DIAGRAMS
BICYCLE CORRIDOR OPTIONS DIAGRAMS
CTPP PROJECT COST ESTIMATES

Please contact PPARSE for copies of the Appendix information
The **Executive Team** is responsible for executive oversight of the project, approval of any costs for the project, approval of major project changes resulting in significant shifts in focus and/or time, and resolving issues that the Core Planning Team sends to them. The Team is also responsible for the endorsement of the Comprehensive Parking and Transportation Plan for it to move forward for university approval. The Team will receive an update or be invited to a summary meeting after each visit by the consultants to review the meeting outcomes, any issues, etc.

**EXECUTIVE TEAM**

Amy Burgess  
IPPLG-A&P  
burgess.97@osu.edu  
614-292-5162

Mark Conselyea  
Wexner Medical Center  
conselyea.1@osu.edu  
614-293-2562

Jennifer Evans-Cowley  
IPPLG-AAA  
cowley.11@osu.edu  
614-247-4109

Jay Kasey  
ASAP  
kasey.3@osu.edu  
614-292-3080

Beth Kelley-Snake  
TTM  
kelly-snake.1@osu.edu  
614-292-9944

Keith Myers  
IPPLG-PPARE  
myers.641@osu.edu  
614-292-5618

Lynn Readey  
IPPLG-FOO  
readey.3@osu.edu  
614-247-8704

Alex Wright  
TTM  
wright.942@osu.edu  
614-292-0972

Kim Moss  
PPARE-Project Manager  
moss.58@osu.edu  
614-292-5974

The **Core OSU Planning Team** will be responsible for all aspects of the integrated planning process, including program, financial, and physical planning. Once the priorities for the project have been determined, an immediate next step is to include the financial planning in the strategy for the Capital Planning Process. The Team is also responsible for coordination and facilitation, budget (as applicable), schedule, project changes, communication of the project, and reporting to and gaining endorsement from the Executive Team and others as appropriate. The Core OSU Planning Team will meet per the project schedule.

**CORE OSU PLANNING TEAM MEMBERS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarah Blouch</td>
<td>CampusParc</td>
<td><a href="mailto:sbouch@campusparc.com">sbouch@campusparc.com</a></td>
<td>614-688-1550</td>
</tr>
<tr>
<td>Amy Burgess</td>
<td>AAP</td>
<td><a href="mailto:burgess.97@osu.edu">burgess.97@osu.edu</a></td>
<td>614-292-5162</td>
</tr>
<tr>
<td>Bernie Costantino</td>
<td>FOD-FDC</td>
<td><a href="mailto:costantino.6@osu.edu">costantino.6@osu.edu</a></td>
<td>614-247-7053</td>
</tr>
<tr>
<td>Steve Gresh</td>
<td>CampusParc</td>
<td><a href="mailto:sgresh@campusparc.com">sgresh@campusparc.com</a></td>
<td>832-405-4550</td>
</tr>
<tr>
<td>Beth Kelley-Snake</td>
<td>TTM</td>
<td><a href="mailto:kelly-snake.1@osu.edu">kelly-snake.1@osu.edu</a></td>
<td>614-292-9944</td>
</tr>
<tr>
<td>Bill Mifsud</td>
<td>WMc</td>
<td><a href="mailto:mifsud.1@osu.edu">mifsud.1@osu.edu</a></td>
<td>614-293-3338</td>
</tr>
<tr>
<td>Richelle Simonson</td>
<td>CampusParc</td>
<td><a href="mailto:rsimonson@campusparc.com">rsimonson@campusparc.com</a></td>
<td>614-688-1526</td>
</tr>
<tr>
<td>Carolyn Staskiewicz</td>
<td>PPARE</td>
<td><a href="mailto:staskiewicz.1@osu.edu">staskiewicz.1@osu.edu</a></td>
<td>614-247-8725</td>
</tr>
<tr>
<td>Steve Volkman</td>
<td>FOD</td>
<td><a href="mailto:volkmann.4@osu.edu">volkmann.4@osu.edu</a></td>
<td>614-292-3673</td>
</tr>
<tr>
<td>Jerry Winget</td>
<td>WMc</td>
<td><a href="mailto:winget.1@osu.edu">winget.1@osu.edu</a></td>
<td>614-366-8571</td>
</tr>
<tr>
<td>Alex Wright</td>
<td>TTM</td>
<td><a href="mailto:wright.942@osu.edu">wright.942@osu.edu</a></td>
<td>614-292-0972</td>
</tr>
<tr>
<td>Kim Moss</td>
<td>PPARE-Project Manager</td>
<td><a href="mailto:moss.58@osu.edu">moss.58@osu.edu</a></td>
<td>614-292-5974</td>
</tr>
</tbody>
</table>

**OSU Stakeholders** are on-campus groups who will be engaged throughout the development of the plan to ensure that all relevant information is factored into the study and that the best possible solutions are recommended.

**OSU STAKEHOLDER GROUPS**

<table>
<thead>
<tr>
<th>Category</th>
<th>Name</th>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Affairs</td>
<td>Jennifer Evans-Cowley</td>
<td><a href="mailto:cowley.10@osu.edu">cowley.10@osu.edu</a></td>
<td>614-247-6109</td>
</tr>
<tr>
<td>Athletics</td>
<td>Mike Penner</td>
<td><a href="mailto:penner.2@osu.edu">penner.2@osu.edu</a></td>
<td>614-292-1844</td>
</tr>
<tr>
<td>Business Adv.</td>
<td>Xan Riggs</td>
<td><a href="mailto:riggs.44@osu.edu">riggs.44@osu.edu</a></td>
<td>614-292-6258</td>
</tr>
<tr>
<td>Business &amp; Finance</td>
<td>Richard Adams</td>
<td><a href="mailto:adams.849@osu.edu">adams.849@osu.edu</a></td>
<td>614-292-6267</td>
</tr>
<tr>
<td>Public Safety</td>
<td>Chief Paul Denton</td>
<td><a href="mailto:denton.25@osu.edu">denton.25@osu.edu</a></td>
<td>614-247-3742</td>
</tr>
<tr>
<td>Student Life</td>
<td>Molly Rano-Calhoun</td>
<td><a href="mailto:calhoun.1@osu.edu">calhoun.1@osu.edu</a></td>
<td>614-292-3001</td>
</tr>
<tr>
<td>Wexner Center for the Arts</td>
<td>Megan Cavanaugh</td>
<td><a href="mailto:cavanaugh.31@osu.edu">cavanaugh.31@osu.edu</a></td>
<td>614-292-9958</td>
</tr>
<tr>
<td>Wexner Medical Center</td>
<td>Mark Conselyea</td>
<td><a href="mailto:conselyea.1@osu.edu">conselyea.1@osu.edu</a></td>
<td>614-292-2762</td>
</tr>
<tr>
<td></td>
<td>Amy Helder</td>
<td><a href="mailto:helder.3@osu.edu">helder.3@osu.edu</a></td>
<td>614-292-8944</td>
</tr>
<tr>
<td></td>
<td>Marsh Gail</td>
<td><a href="mailto:marsh.4@osu.edu">marsh.4@osu.edu</a></td>
<td>614-247-8361</td>
</tr>
<tr>
<td></td>
<td>Bill Mifsud</td>
<td><a href="mailto:mifsud.1@osu.edu">mifsud.1@osu.edu</a></td>
<td>614-293-3338</td>
</tr>
<tr>
<td></td>
<td>Bill Orosz</td>
<td><a href="mailto:orosz.21@osu.edu">orosz.21@osu.edu</a></td>
<td>614-293-0519</td>
</tr>
<tr>
<td></td>
<td>Dr. Andy Thomas</td>
<td><a href="mailto:thomas.382@osu.edu">thomas.382@osu.edu</a></td>
<td>614-293-8158</td>
</tr>
<tr>
<td></td>
<td>Jerry Winget</td>
<td><a href="mailto:winget.1@osu.edu">winget.1@osu.edu</a></td>
<td>614-366-8571</td>
</tr>
<tr>
<td></td>
<td>Sharon Cross</td>
<td><a href="mailto:cross.95@osu.edu">cross.95@osu.edu</a></td>
<td>614-293-0526</td>
</tr>
<tr>
<td></td>
<td>Kent Hess</td>
<td><a href="mailto:hess.212@osu.edu">hess.212@osu.edu</a></td>
<td>614-293-8028</td>
</tr>
<tr>
<td></td>
<td>Rob Hofacre</td>
<td><a href="mailto:hofacre.1@osu.edu">hofacre.1@osu.edu</a></td>
<td>614-293-3434</td>
</tr>
<tr>
<td></td>
<td>Renee Jones</td>
<td><a href="mailto:jones.1860@osu.edu">jones.1860@osu.edu</a></td>
<td>614-293-3712</td>
</tr>
<tr>
<td></td>
<td>Carey Ker</td>
<td><a href="mailto:ker.8@osu.edu">ker.8@osu.edu</a></td>
<td>614-366-6822</td>
</tr>
</tbody>
</table>

12-1
**External Stakeholders** are off-campus groups who will be engaged to provide initial input related to the current regional transportation system, to discuss planned improvements within jurisdictions, and to review recommendations of the plan.

**OSU Participants** include on-campus groups who may be affected by the plan or have interest in it. Input from this group will be sought before substantial technical work is completed and will be complemented with an internet-based, facilitated discussion tool.

**OSU Resources** are groups or individuals that will provide data, information or resources to the Core OSU Planning Team and the selected consultants.

### EXTERNAL STAKEHOLDER GROUPS

| City of Columbus | Jennifer Gallagher  | jlgallagher@columbus.gov |
| COTA            | Mike Bradley       | bradleyML@ota.com        |
|                | Ginny Barry        | barryvt@ota.com          |
|                | Elliott Doza       | dozaec@ota.com           |
| MORPC          | Kerstin Carr       | karr@morpc.org           |
| ODOT           | Ferzan Ahmed       | ferzan.ahmed@dot.state.oh.us |

### City of Upper Arlington

| Ted Staton, City Manager | tstaton@uaoh.net |

### OSU PARTICIPANTS

#### Campus

| Transit Lab | Dr. Mark McCord | mccord.2@osu.edu | 614-292-2388 |
|            | Dr. Rabi Mishalani | mshalani.1@osu.edu | 614-292-5949 |

#### Council of Graduate Students

| Joshua Coy | coy.82@osu.edu | 614-292-6158 |

#### COPE

| Jeff McKeen, Chair | mckee.95@osu.edu | 614-292-2745 |

#### Faculty Club

| Sara Tennyson | Jeff White | tennyson.5@osu.edu | white.440@osu.edu | 614-688-8592 |
|              |            | 614-292-2262 |

#### Faculty Member

| Gulnas Akar | Harvey Miller | miler.81@osu.edu | 614-292-2514 |
|            | Umit Ozguner | ozguner.1@osu.edu | 614-292-5940 |
|            | Philip Viton | viton.1@osu.edu | 614-292-2119 |

#### Faculty Council

| Dr. Michael Lisa | lisa.1@osu.edu | 614-292-8524 |

### Human Resources

| Don Fuzer | fuzer.2@osu.edu | 614-292-4453 |

### Inter-Professional Council

| BreAnna Zilm | zilm.2@osu.edu |
| David Gorenz | davidgorenz@gmail.com |

### OSU COTA Group

| Brian Myers, student chair | myers.945@osu.edu |

### Stores and Receiving

| Shawn Jones | jones.127@osu.edu | 614-688-8682 |

### USAC

| Emily Meyer | meyer.700@osu.edu | 740-725-6192 |

### USG

| Taylor Stepp | stepp.45@osu.edu |

### OSU RESOURCES

| A&P Communications | Lindsay Komlanc | komlanc.2@osu.edu | 614-292-2041 |
|                    | Alison Hinkle  | hinkle.135@osu.edu | 614-247-5825 |
| ADA                | Scott Lissner  | lissner.2@osu.edu  | 614-292-6207 |
| FOD                | Robert Osterfeld | osterfeld.5@osu.edu | 614-688-8482 |
|                    | Glen Yoder     | yoder.237@osu.edu  | 614-292-7594 |
| Institutional Research and Planning | Julie Carpenter-Hubin | carpenter-hubin.16@osu.edu | 614-292-5915 |
| ADA                | Scott Lissner  | lissner.2@osu.edu  | 614-292-6207 |
| FOD                | Robert Osterfeld | osterfeld.5@osu.edu | 614-688-8482 |
|                    | Glen Yoder     | yoder.237@osu.edu  | 614-292-7594 |
| Institutional Research and Planning | Julie Carpenter-Hubin | carpenter-hubin.16@osu.edu | 614-292-5915 |
| ADA                | Scott Lissner  | lissner.2@osu.edu  | 614-292-6207 |
| FOD                | Robert Osterfeld | osterfeld.5@osu.edu | 614-688-8482 |
|                    | Glen Yoder     | yoder.237@osu.edu  | 614-292-7594 |
| PPAR | Aaron Kidwell | kidwell.87@osu.edu | 614-688-8287 |
|      | Larissa Kruger | kruger.57@osu.edu | 614-292-9521 |
|      | Erin Prosser  | prosser.70@osu.edu | 614-247-5958 |
|      | Alyssa Sexton | sexton.167@osu.edu | 614-292-9113 |
| TTM   | Dale Harris   | harris.497@osu.edu | 614-292-1002 |
|      | Tom Holman    | holman.30@osu.edu  | 614-292-9113 |
|      | Mi Namgung    | namgung.1@osu.edu  | 614-688-5313 |
THIS PAGE IS INTENTIONALLY BLANK