



FINAL REPORT

# THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL Transportation & Parking Five-Year Plan

PREPARED FOR:



THE UNIVERSITY  
of NORTH CAROLINA  
at CHAPEL HILL

PREPARED BY:

**Kimley»Horn**

MAY 2017



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## **1. ACKNOWLEDGEMENTS**

### **1.1 Transportation & Parking Staff**

- Cheryl Stout, Director
- Than Austin, Associate Director of Transportation and Planning
- Wil Steen, Associate Director of Parking and Strategy
- Mya Nguyen, Executive Assistant

### **1.2 Executive Sponsor Group**

- Vice Chancellor for Finance and Administration (Chair)
- Executive Vice Chancellor and Provost
- Vice Chancellor for Medical Affairs
- Vice Chancellor for Workforce, Strategy, Equity & Engagement
- Vice Chancellor for General Counsel
- Vice Chancellor for University Development
- Vice Chancellor for Student Affairs
- Vice Chancellor for Communications and Public Affairs
- Director of Athletics
- Senior Associate Vice Chancellor for Finance and Administration
- Associate Vice Chancellor for Campus Enterprises

### **1.3 Advisory Committee on Transportation and Parking (ACT)**

Representatives from each of the following:

- Academic Affairs
- Athletics
- Campus Enterprises
- Chapel Hill Transit
- Employee Forum
- Facilities Services
- Faculty Council
- Graduate Professional Student Federation
- Medical School
- Public Safety
- Student Affairs
- Student Government Undergraduate
- Transportation & Parking
- GoTriangle
- UNC Hospitals



## 2. EXECUTIVE SUMMARY

### 2.1 Project Overview

The University of North Carolina at Chapel Hill (UNC) Transportation & Parking teamed with Kimley-Horn and Associates to develop an update to the University's Transportation & Parking Five-Year Plan for academic years 2017-2022. The Five-Year Plan places special emphasis on campus community outreach and participation, system enhancements to improve service delivery, future economic impacts, and the efficiency of the parking and transportation system. The Plan was designed to:

- Integrate parking management strategies into campus and community transportation and mobility planning efforts;
- Provide additional services and benefits to the users within the community;
- Ensure that policies, programs, and infrastructure are coordinated and supportive of the larger campus Master Plan's goals.

The project team for the Five-Year Plan was led by the following representatives:

- UNC Transportation & Parking
  - Cheryl Stout, Director
  - Than Austin, Associate Director
  - Wil Steen, Associate Director
- Kimley-Horn and Associates, Inc.
  - Dean Penny, Project Director
  - Matt Sumpter, Project Manager
  - Vanessa Solesbee, Stakeholder Outreach and Communications

Supporting the project's leadership team, the Five-Year Plan was guided by the Advisory Committee on Transportation & Parking (ACT). ACT is a representative group of the campus community formed to provide guidance on strategies for sustainable and convenient transportation and parking access to campus. ACT members represent the community and provide feedback associated with the changing access needs of students, faculty, staff, patients, and visitors to the University and UNC Hospitals.

Early in the new Five-Year Plan process, the project team reviewed, evaluated, and updated the Guiding Principles from the previous Five-Year Plan to provide a clear set of principles on which to base the new Five-Year Plan. These principles provided a framework for the Plan to ensure that any recommendations are consistent with the overall goals of the University, the transportation & parking system, and support all of the system's users. As the recommendations were developed, the Guiding Principles listed below were used as the basic evaluation tool for the project team.

- **Principle 1:** Provide adequate and safe access for all who need to come to campus.
- **Principle 2:** Encourage sustainable multimodal transportation options for all users of the system.
- **Principle 3:** Support the Master Plan by coordinating transportation and parking needs with the land use, open space, and programmatic objectives of the physical Master Plan.
- **Principle 4:** Transportation and parking operations will remain solely self-funded and receipt supported.

### 2.2 Stakeholder Outreach

#### 2.2.1 Strategy Overview – A Phased Approach

At the beginning of the Five-Year Plan process, Kimley-Horn partnered with Transportation & Parking staff to develop a comprehensive campus outreach strategy to provide the UNC campus community with an opportunity to share their experiences, perceptions, ideas, and concerns related to accessing campus using their preferred method of transportation: car, bicycle, public transit and/or as a pedestrian.



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This strategy included a phased approach designed to offer in-person and online opportunities for stakeholder engagement throughout the Five-Year Plan process, including:

- Monthly Meetings with ACT from October 2015 through March 2017
- Presentations to the Executive Sponsor Group
- Project Website: [www.uncfiveyearplan.com](http://www.uncfiveyearplan.com)
- MetroQuest: An online campus outreach platform that provides a way for the campus community to provide feedback on the go.
- Targeted Stakeholder Conversations:
  - Round One: Spring/Early Summer 2016
  - Round Two: Fall/Winter 2016
- Transportation Fair/Open House: November 2016

Figure 1 below provides an overview of Outreach activities beginning in the Spring of 2016 through 2017, as well as ongoing activities to be done throughout the life of the Plan.

### Spring 2016 Actions

- Project website
- MetroQuest
- Stakeholder meetings

### Summer 2016 Actions

- Stakeholder meetings
- Staff conversation and questionnaire
- Summary memo
- Key issue identification

### Fall 2016 Actions

- Transportation Fair (November)
- Round II stakeholder meetings
- Communication strategy

### Spring 2017 Actions

- "Presentation Tour" of Plan
- Engagement of Peer Champions
- Finalize Strategic Communications Plan

### Ongoing Outreach

- Implement Strategic Communications Plan
- Regularly check in with stakeholders
- Forecast major policy/program recommendations

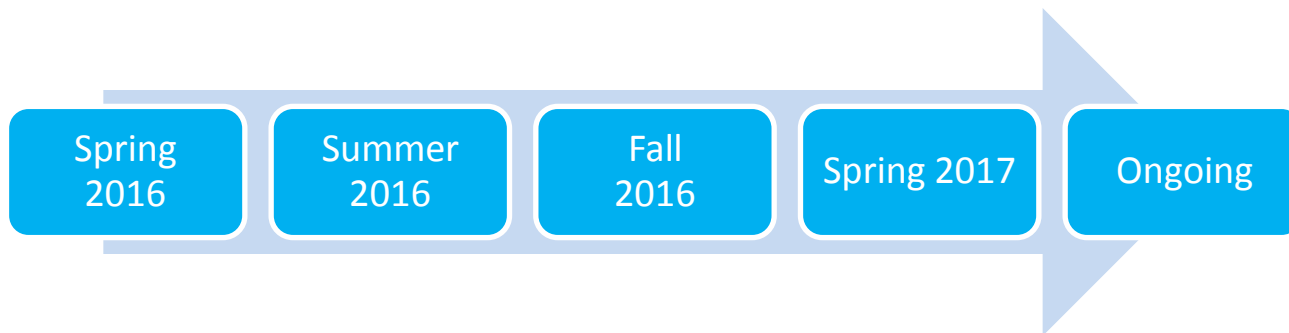


Figure 1 – Outreach Activities (Spring 2016 – Spring 2017)

Several strong themes emerged from the campus community members who participated in the new Five-Year Plan’s outreach process. The following list includes key themes that were present throughout both the quantitative (online surveying through MetroQuest) and qualitative (in-person meetings) outreach offerings, many of which were consistent with the vision outlined by the updated Guiding Principles:

- Bicycle infrastructure and amenities
- Pedestrian safety
- Roadway usage and prioritization
- Management of moped and scooter use
- Understanding “customer” data to maximize existing resources
- Investment in enhanced technology
- Impact of the distributed services model
- Potential for implementation of weeknight parking
- Integration with private parking providers
- Improved transit options and communication about options

### 2.3 System Evaluation Overview

A new element of the Five-Year Plan (2017-2022) is a high-level “system evaluation” of the UNC Chapel Hill Transportation & Parking operation. Based on Kimley-Horn’s extensive experience evaluating university parking systems of various sizes and complexity across the country and abroad, Kimley-Horn has identified a set of “20 Characteristics”, that when combined into an integrated approach to parking and access management, can provide the basis for a sound and well-managed operation that is positioned to best serve the campus today and into the future.

The 20 characteristics are:

1. Clear Vision and Mission
2. Parking Philosophy
3. Strong Planning
4. Campus Community Engagement
5. Organization
6. Staff Development
7. Safety, Security, and Risk Management
8. Effective Communication
9. Effective and Accountable Revenue Control
10. Financial Planning
11. Creative, Flexible, and Accountable Parking Management
12. Operational Efficiency
13. Comprehensive Facilities Maintenance Programs



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14. Effective Use of Technology
15. Parking System Marketing and Promotion
16. Positive Customer Service Programs
17. Special Events Parking Programs
18. Effective Enforcement
19. Parking and Transportation Demand Management
20. Awareness of Competitive Environment

A transportation and parking system that has all twenty of these characteristics is well on its way to being in a class apart from most university programs. The goal of the System Evaluation process is to identify an easy-to-understand set of criteria that, when used to guide program development and management, can support Transportation & Parking's continued investment to be an active contributor to improving the overall experience of traveling to, and around, the UNC campus.

Before beginning the evaluation, Transportation & Parking leadership were asked to share their goals for the process, including what they hoped to learn and what the value they thought the addition of this exercise would add to the Five-Year Plan. Key goals included:

- High-level operational overview that is easily shared with and understood by campus stakeholders
- Learn more about industry innovation, best practice and strategies for improvement
- Identify a "road map" for future investment in organizational and operational improvement, staffing, technology and programs.

While goals for this process were varied, they all centered around one main theme: to help Transportation & Parking "tell the story" about the myriad ways in which their staff, programs and services are working to provide a comprehensive, fiscally-responsible and customer-focused approach to balancing the campus access needs of students, faculty, staff, visitors, alumni and key partners like UNC Hospitals.

### 2.4 Recommendations

Based on the feedback received during the stakeholder outreach, a series of key issues and improvements emerged that stakeholders wanted to be included / addressed in the Five-Year Plan. Among many items, the following are system enhancements that have been recommended for implementation into the Five-Year Plan:

- **PARCS:** Upgrades to the Parking Access and Revenue Control System to offer better customer interface and improved efficiencies with operations.
- **LED Lighting Enhancements:** Continued upgrades to the lighting within the existing parking facilities to enhance security and safety, as well as reduce operating costs.
- **Bike Share:** Implementation of a bike share program to provide better bike access to and throughout the campus.
- **P2P - Transloc:** Implementation and upgrades to the mobile transit information to allow better "real time" data to users and provide a new app-based ride request and reservation system for P2P on-demand services.
- **Campus Bird:** Inclusion of parking and transportation apps within the new Campus Bird web interface.

These System Enhancements will be funded by reducing the current operating reserve from 90 days to 30 days (\$4,500,000), as well as utilizing accumulated capital reserves (\$1,150,000). Table 1 shows the anticipated implementation schedule for the system enhancements.





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**Table 1 - System Enhancements Schedule of Implementation Summary**

System Enhancement	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22
<b>LED Parking Deck Installations</b>	Rams Head/ Cobb	Rams Head/ Cobb	Jackson Circle/ Business School	Jackson Circle/ Business School	
<b>PARCS</b>	Implementation	Implementation	Implementation		
<b>Bike Share</b>	Implementation				
<b>P2P - TransLoc</b>	Implementation				
<b>Campus Bird</b>	Ongoing				

## 2.5 Financial Overview

The Five-Year Plan includes a financial review of current projected revenues and expenses, as well as the projected financial obligations over the next five years. The fiscal year 16/17 was used as a baseline for this analysis.

Beyond the new system enhancements, the Five-Year Plan was developed based on the following growth obligations over that period. The financial obligations may be classified into three major categories: expenses associated with the operations of the Parking System (e.g., routine maintenance, administrative operations, ongoing operational expenses), expenditures to support the University’s participation in funding fare-free Transit Systems that serve the campus (Chapel Hill Transit and Regional Transit), and debt payments to service capital expenditures for existing and future parking structures. Table 2 summarizes the growth obligations over the duration of this Plan.

**Table 2 - Five-Year Plan Obligations**

Obligation	5 Year Total	Average Growth Per Year
Chapel Hill Transit	\$7,730,700	\$1,546,140
Regional Transit (Go Triangle, PART, Chatham)	\$1,056,837	\$211,367
P2P — TransLoc	\$350,000	\$70,000
Inflation on Existing Expenses	\$4,179,981	\$835,996
Patient/Visitor Deck Debt Payment	\$1,168,000	\$233,600
Total Needed over 5 years to Meet Growth	\$2,897,103	
Growth as Percent of Annual Budget	8%	

The projected revenue versus the projected expenditures were reviewed for the Five-Year Plan. Each year, the expenses are projected to be greater than current revenues with the projected deficit averaging \$2.3 Million annually. Over the course of the Plan, the shortfall would total \$11.3 Million if no additional funding sources were considered. Therefore, funding strategies were considered separately for both the Parking System and Transportation System to increase revenue in the System in order to meet the projected growth obligations. Based on the feedback of stakeholders, and the evaluation of several alternative funding strategies, the following blended funding strategy was recommended for



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implementation to fund the Five Year Growth Obligations. This funding recommendation was supported by ACT and the Executive Sponsor Committee, and is consistent with the Guiding Principles.

**Table 3 - Five-Year Recommended Funding Strategy**

	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22
Annual Daytime Permit Increases <sup>1</sup> 1% = \$0.12 to \$0.88/bi-weekly period	+1%	+1%	+1%	-	-
Department Transportation Fee Increases <sup>2</sup>	-	-	-	-	-
Student Transportation Fee Increases					
Local/Regional Component	+\$5.44/yr (3.5%)	+\$5.64/yr (3.5%)	-	-	-
Weeknight Parking Component (Overall rate)	-	-	+\$6 (\$6)	+\$2 (\$8)	+\$2 (\$10)
Weeknight Parking – Employee Permit <sup>5</sup>	-	-	\$234-\$402/yr	\$234-\$402/yr	\$234-\$402/yr
Weeknight Parking – Visitor Parking <sup>3</sup>	-	-	Y	Y	Y
North Campus Hourly Rate Increases <sup>4</sup> (Overall rate)	+\$0.25/hr (\$1.75/hr)	- (\$1.75/hr)	- (\$1.75/hr)	- (\$1.75/hr)	- (\$1.75/hr)

1. Parking subsidy set at \$800K/yr (reduced from \$1M in FY16/17)
2. Department Transportation Fee supports 50% of Local/Regional Transit cost (48% in previous Plan)
3. Paid visitor parking hours to be extended
4. No planned increases to healthcare patient/visitor rates (Dogwood, ACC, Hospital ADA)
5. Employees have a pay based sliding scale for permit cost

## 2.6 Continuing the Conversation: Communication to Support Implementation

Communicating about parking requires both technical savvy and an understanding of the often-intense emotions that are experienced when dealing with parking concerns and issues. Relationship and trust building can be a slow and a “show me, don’t tell me” kind of process, however building trust between UNC Transportation & Parking and the campus community will be a vital step in creating a truly customer-focused parking experience. To this end, campus outreach cannot be a one-time investment. Stakeholders should be engaged frequently and in a transparent manner that helps build trust and “show” how Transportation & Parking is incorporating feedback into policy and programmatic decisions.

A unique element of the new Five-Year Plan is the creation of a communication and outreach strategy to complement Plan recommendations. Chapter 7 of the report explores the following topic areas in a step-by-step way designed to guide Transportation & Parking staff as they work to keep the campus community informed and engaged throughout implementation.

- Program Vision, Mission and Branding
- Audience Segmentation
- Messaging
- Communication Tools and Platforms
- Strategies to Support Implementation

The background features a large grey shape on the left and a large blue shape on the right, both with rounded corners. Below these, there are several overlapping blue shapes in various shades, creating a layered effect.

## Transportation & Parking Five-Year Plan

Introduction

Study Process

System Evaluation

Five-Year Plan

Implementation Plan

Conclusion



### 3. INTRODUCTION

The Transportation & Parking System (System) at the University of North Carolina at Chapel Hill (UNC or University) supports approximately 29,400 total students, 12,400 faculty and staff, and 7,300 UNC Hospitals' employees. The System consists of approximately 9,128 structured parking spaces, 14,236 surface lot parking spaces, Local and Regional transit bus routes, and Point-to-Point system for after-hours and accessibility service. The System is solely receipt-supported, with revenue generated from three major sources: student and departmental transportation fees, daytime parking permit revenues, and visitor parking revenues. The UNC Parking & Transportation System receives no State funds.

UNC Transportation & Parking conducted a Transportation and Parking System Assessment and Access Plan in 2003 (Transportation and Parking Services were then part of the Department of Public Safety). This Plan developed, for the first time, a Five-Year Plan for the Transportation & Parking System that outlined funding strategies to support capital building projects (new parking decks, park and ride lots, etc.), fare-free Local and Regional Transit Services, increased park and ride use, and general changes in funding strategies as the Parking System eliminated large amounts of surface parking spaces and replaced it with parking structures. The University of North Carolina at Chapel Hill Development Plan and subsequent updates identified the approved strategies for managing traffic and parking based on planned University and Hospital growth. The recommended funding strategies and programmatic changes to support the growth were incorporated into the Transportation & Parking System over the next several years.

In 2010, the University initiated a new study to look beyond the previous Five-Year Plan and to reassess the Transportation & Parking System needs for the University and Healthcare System through the 2015/16 academic year. The 2010 report documents the results of planning efforts that focused on System requirements at the UNC campus for the next five years. Overall parking requirements and operational efficiencies were analyzed as they related to upcoming planned developments at that time by UNC, UNC Healthcare, Chapel Hill Transit (CHT), and Go Triangle (GT). The University of North Carolina at Chapel Hill Development Plan and subsequent updates outlined transportation and parking demand based on planned development on and around main campus.

For the current Five-Year Plan, the Transportation & Parking teamed with Kimley-Horn and Associates, Inc. to develop an update to the University's Transportation & Parking Five-Year Plan for academic years 2017-2021. This Five-Year Plan places special emphasis on campus community outreach and participation, system enhancements to improve service delivery, future economic impacts, and the efficiency of the parking and transportation system. The Plan was designed to:

- Integrate parking management strategies into campus and community transportation and mobility planning efforts;
- Provide additional services and benefits to the community;
- Ensure that policies, programs, and infrastructure are coordinated and supportive of the larger campus Master Plan's goals.



## 4. STUDY PROCESS

The purpose of this study is to develop a five-year funding strategy for the University's Transportation & Parking System. Research and analysis included confirmation of the proposed capital building projects as well as parking policies and revenue streams that support the projected financial obligations. Kimley-Horn was engaged to provide consulting services for an independent evaluation of the program and to aid in the Plan's development. This section outlines the process taken to complete this study. Further detail is provided in subsequent sections of this report.

### 4.1 Planning Process

#### Review of Management Strategies and Potential Recommendations

To begin, a cursory review of current management strategies and financial data was performed to develop a baseline upon which recommendations and improvements could be made. Upon initial review of the current state of the System, a preliminary list of potential operational, technological, and efficiency-related recommendations were developed and presented to the Advisory Committee on Transportation & Parking (ACT). Throughout this study, ACT assisted in the development and refining of various recommendations. Comments from ACT were gathered throughout the process and the initial recommendations revised and updated accordingly.

#### Public Outreach

Following the initial ACT presentation, meetings were held with other stakeholders that included representatives from the following groups: Academic Affairs, Athletics, Facilities Services, Faculty Council, Incoming Undergraduate Student Leadership, Local/Regional Transit, Medical School, Public Safety, Staff Forum, Student Affairs, UNC Hospitals. The intent of these meetings was to gather information regarding the effect of current transportation and parking policies on each group, but, more importantly, to obtain an understanding of planned development or change in operations from each within the 5-year study period. Information collected included items such as plans for new parking decks, projected expense increases for Transit, and desired system enhancements. This information was used to project annual financial obligations through the 5-year study period and to gauge the financial impact of each recommendation. A complete review of the Public Outreach is detailed in 4.3.

#### Recommendations Review, Refinement, and Final ACT Presentation

As financial data and public input was gathered, System recommendations for the next five years were refined, including recommendations for financial sustainability and for system enhancements. These recommendations were then presented to ACT and to the Executive Sponsor Committee for additional commentary and feedback. The feedback was used to further refine the list of recommendations. A final presentation outlining the recommendations and implementation strategies were made, to and approved by, ACT on 12/14/2016 and to the Executive Sponsor Committee on 1/25/2017, respectively.

#### Ordinance Changes and Final Report

Ordinance modifications were developed based on the Plan recommendations and were approved by the Board of Trustees on 3/22/2017. Following approval, this report was developed to document the final recommendations and operational improvement strategies, including implementation timelines through the Fiscal Year 21/22.

### 4.2 Guiding Principles

To understand the ultimate goals of the University and its overall Transportation & Parking System objectives, it was important to review, evaluate, and update the Guiding Principles previously identified for the parking system. These principles provide a framework for the Transportation & Parking System, ensuring that decisions are consistent with the overall goals of the University, the Transportation & Parking System, and all the System's users. As recommendations were researched, developed, and refined, the Guiding Principles were also used as an evaluation tool for the team. Each idea to improve efficiencies or financial performance with the transportation and parking program was evaluated with respect to the Guiding Principles to determine if it should be considered further for implementation. Recommendations presented in this report fall within the Guiding Principles framework. The study's Guiding Principles appear below:



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- **Guiding Principle 1:** Provide adequate and safe access to campus for all who need to come to campus as affordably as possible.
- **Guiding Principle 2:** Encourage sustainable multimodal transportation options for all users of the system.
- **Guiding Principle 3:** Support the Campus Master Plan by coordinating transportation and parking needs with the land use, open space and programmatic objectives of the physical Master Plan.
- **Guiding Principle 4:** Transportation and parking operations will remain solely self-funded and receipt supported.

As a result of the stakeholder input, the following supporting practices were identified to support the Guiding Principles listed above:

- Maintain adequate on-campus parking for visitors and patients.
- Maintain commitment to partnership with the Towns of Chapel Hill and Carrboro in the operation of the Chapel Hill Transit fare-free system.
- Maintain commitment to promote use of Go Triangle and other regional transit options for access to the main campus.
- Reduce the current parking subsidy for transit services.
- Develop a more equitable balance of the cost of the Transportation and Parking System to all users of the System.

## 4.3 Public Outreach

### 4.3.1 Outreach Strategy: A Phased Approach

Early in the new Five-Year Plan process, Kimley-Horn partnered with Transportation & Parking staff to develop a comprehensive campus outreach strategy. The strategy was designed to provide the UNC campus community with an opportunity to share their experiences, perceptions, ideas, and concerns related to accessing campus using their preferred method of transportation: car, bicycle, public transit and/or as a pedestrian. This strategy included a phased approach that would offer in-person and online opportunities for stakeholder engagement throughout the Five-Year Plan process, including:

- Monthly Meetings with ACT from October 2015 through March 2017
- Presentations to the Executive Sponsor Group
- Project Website: [www.uncfiveyearplan.com](http://www.uncfiveyearplan.com)
- MetroQuest: An online campus outreach platform that provides a way for the campus community to provide feedback on the go.
- Targeted Stakeholder Conversations:
  - Round One: Spring/Early Summer 2016
  - Round Two: Fall/Winter 2016
- Transportation Fair/Open House: November 2016

This section details the process and results from the Five-Year Plan's campus outreach efforts. Feedback, thoughts and perceptions provided by each stakeholder group were reviewed in detail for key themes. These themes were then used to provide context and validation for the Five-Year Plan financial and operational recommendations.

### 4.3.2 Outreach Summary and Results

#### Project Website

A project website was developed to act as a central clearinghouse for information related to the Five-Year Plan. The website ([www.uncfiveyearplan.com](http://www.uncfiveyearplan.com)) was regularly updated and included all notes from ACT meetings, key project milestones and dates, contact information for questions, and promoted opportunities for public involvement. It is anticipated that the information included on the project website will be transitioned into a page on the Transportation & Parking website and that the page will be kept up to date throughout implementation of the new Five-Year Plan.



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### Targeted Stakeholder Conversations

A first round of stakeholder conversations was held with ACT members and invited representatives from their school or department April 6-7, 2016. A meeting with newly-elected undergraduate student leadership was conducted on April 14, 2016. Stakeholder conversations were facilitated by Kimley-Horn and were attended by both Transportation & Parking leadership.

Representatives from the following groups participated in the stakeholder conversations:

- Public Safety
- Athletics
- Medical School
- Faculty Council
- Employee Forum
- Facilities Services
- UNC Hospitals
- Student Affairs
- Academic Affairs
- Incoming Student Leadership
- Transportation & Parking Staff

A total of 46 people participated in the initial stakeholder conversations. Key themes that emerged from this series of meetings included:

- Investments in bicycle infrastructure and amenities would be well-received, specifically:
  - Bike share program to assist with inter-campus trips, as well as trips to and from Chapel Hill and Carrboro
  - Coordinated bike library/bicycle shop in partnership with the Town of Chapel Hill
  - Additional dedicated bicycle lanes and bicycle parking
- Pedestrian safety concerns, stemming from:
  - Distracted walking (i.e., pedestrians on cell phones or listening to earbuds)
  - Several intersections/roads with increased likelihood of pedestrian/vehicle conflict
  - Increased number of mopeds
  - Desire for pedestrian bridges or underpasses in key campus ped/bike/vehicle conflict “hot spots”
- Roadway usage and prioritization must factor into conversations about transportation and parking because:
  - As UNC continues to grow and redevelop, the use of certain buildings will intensify and put additional pressure on already busy roadways
  - Event parking and access for athletes, staff, patrons and regular campus users who are all competing for a limited number of parking spaces
  - The possibility of temporary and/or event-based two-way to one-way road conversions to assist with event ingress/egress
- Prevalence of mopeds/scooters is continuing to grow, and:
  - Adjustments in licensing have helped alleviate some of the issues, however, the growth of this mode will need additional monitoring and likely policy discussion (related to pricing, parking location, etc.)
- Understanding “customer” data will help maximize existing resources:
  - Identifying where the trips to campus are originating for residents, visitors and event attendees
  - Exploring the possibility of sharing parking resources between shifts
  - Incentivizing some users to choose an option beyond driving (i.e., parking cash out)
  - Investigating shared parking with the Town of Chapel Hill
- Technology investment, specifically:
  - Mobile applications that can provide wayfinding, parking availability and real-time transit information
  - Low cost options that can provide occupancy/availability data for facilities and lots
- Growth of distributed services model will shift needs of many users, especially the Hospital and Medical School:



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- Clinics are transitioning off-campus and physicians are finding themselves making multiple trips to and from campus
- Communication of options like Zipcar and P2P for after-hours uses
- Possible increase in tele-working or remote working for some or part of the week
- Night parking is on everyone's mind, specifically:
  - The top concern is about safety and security as the campus sees more 24/7 activity
  - Improving lighting for pedestrians/bicyclists
  - Balancing the need to have revenue to manage night parking with the desire not to penalize or restrict nighttime recreational/extracurricular activities
  - Instituting an equitable system where all system users are "paying their way"
- Integration with private providers
  - Proactive coordination with ridesharing services like Uber for gameday drop-off/pick-up and/or night-time rides
  - Coordination with off-campus housing shuttles
- Improved and/or consolidated communication about transportation options
  - Creative ways to cut through the "noise" and provide the campus community with useful information about their options (i.e., video vignettes, student ambassadors, parking "personas", "University 101")
  - Audit of existing options; are there too many options with not enough users that could be consolidated into a more concise menu of alternatives?
  - Communication issue goes beyond Transportation & Parking; how can the entire campus communicate to students, faculty and staff in a more meaningful way?
- Improved transit options, including:
  - Analyzing Chapel Hill Transit routes to maximize coverage to UNC locations and destinations
  - Expanding Chapel Hill Transit service hours later into the evening and on weekends

### Metroquest

A new element of the campus outreach strategy for the new Five-Year Plan was use of an online tool called MetroQuest. MetroQuest is a digital engagement platform that uses a series of tailored "cards" to provide an opportunity for stakeholders to interact with a planning project in a meaningful way and on their own. For the Five-Year Plan, a series of online activities were created that allowed participants to describe their commuting behavior, indicate challenges that were most concerning to them and to "balance a budget" with hypothetical dollars.

MetroQuest went live on March 24, 2016 and was actively promoted following a series of in-person stakeholder meetings that were conducted April 5-6, 2016. The following summary includes comments that were received between March 24th and June 9th, 2016, however the majority of interaction with MetroQuest happened in the month of May 2016.

### Participant Demographics/Commuting Behavior

The following data was collected in response to a series of questions that asked participants to describe themselves and their commuting behavior.

- 554 unique individuals visited the site with 383 visitors providing data (70%).
- Majority of respondents self-identified as "University Staff or Faculty" (63%), with the next highest participation seen among "UNC Hospitals Staff" (17%) and "Students" (16%).
- 69% of respondents reported living "Off Campus outside of Chapel Hill or Carrboro", with only 1% reporting that they lived "On Campus".
- The vast majority of respondents travel to campus "At least five times per week" (82%).
- Respondents indicated using a variety of modes to travel to and from campus, including (number indicates total number of individual affirmative responses):
  - Drive alone: 189
  - Chapel Hill Transit: 135
  - Regional transit bus: 122
  - Park and Ride: 119





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- Walk: 40
- Bicycle: 36
- Carpool / vanpool: 27
- Motorcycle / Scooter: 3
- Other: 11

### Commuting Challenges

In this exercise, participants were asked to drop three “pins” on a map and to input a brief narrative describing issues and/or challenges that they encountered getting to and/or around the UNC Chapel Hill campus. The following summarizes hundreds of responses into the most frequently mentioned issues by category:

- Transit: Respondents cited “inadequate frequency of transit” to describe what was most challenging about their transit experience on campus.
- Drive: Respondents cited “lack of parking” as the biggest challenge when driving to campus.
- Walk: Crosswalk improvement was selected as the biggest pedestrian issue on campus, followed closely by [the need for] “sidewalk improvement”.
- Bike: Cyclists indicated that their biggest challenge was the lack of bike paths.

### Balancing the Budget

Respondents were given 100 hypothetical dollars or “chips” to invest in their parking and / or transportation priorities. As a result, participants selected (invested in) the following:

1. Additional buses / service: 26 chips (\$26 out of \$100)
2. Parking supply expansion: 23 chips (\$23 out of \$100)
3. Bike lane construction: 11 chips (\$11 out of \$100)
4. Transit amenities (i.e., signs, shelters): 10 chips (\$10 out of \$100)
5. Other alternative transportation amenities: 8 chips (\$8 out of \$100)
6. Sidewalk construction / maintenance: 8 chips (\$8 out of \$100)
7. Parking deck / lot maintenance: 5 chips (\$5 out of \$100)
8. Additional bike parking: 2 chips (\$2 out of \$100)

### Transportation Fair / Open House

The Transportation Fair aims to engage and educate the public about transportation alternatives at UNC, and the 2016 Transportation Fair took place November 16, 2016. The Department hosted a session for UNC Hospitals and another session for all of campus.

Over 100 people attended the UNC Hospitals session. Over 170 people attended the campus-wide session, which also featured a presentation on the Transportation and Parking Five-Year Plan, delivered by Transportation & Parking Associate Director Than Austin. At the events, patrons and community members interacted with vendors and T&P partners such as Chapel Hill Transit, GoTriangle, Tar Heel Bikes, Zipcar, and Eco-Reps. The Fair also made the event interactive by offering participants a chance to win prizes by playing a trivia game. Players answered “True or False” questions about local and regional transit, as well as general trivia about transportation.

The event allowed community members to sign up for the Commuter Alternative Program (CAP), a transportation demand initiative. T&P received about 40 requests from interested parties to enroll in the program. CAP members utilize transportation alternatives including Chapel Hill Transit, GoTriangle, Vanpool, and Carpool to travel to and from campus, decreasing the number of single-occupancy vehicles on campus. CAP and other transportation demand alternatives align with the University's goal of sustainability.

Participants were also given the opportunity to provide anonymous feedback about the program. Some of the feedback responses received included the opinion that permit rates are high compared to comparable systems in this geographic region. In addition, there was a desire to provide more options for regional transit routes.



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### 4.3.3 Outreach Summary

UNC Transportation & Parking should be commended for their decision to expand and diversify campus outreach with the new Five-Year Plan. Outreach to UNC Chapel Hill's diverse constituencies, while not without its challenges and varied opinions, provides important insight into the experience that students, faculty, staff and visitors have when parking on and moving around the UNC campus. Therefore, it is important to continue regular stakeholder communication and education throughout implementation of this project's recommendations, giving the campus community an avenue to provide ongoing feedback that could help refine the implementation process.

This activity – “Closing the Communication Loop” – also helps build trust and confidence that feedback given during the community engagement process was both heard and incorporated into the final recommendations. Recommendations on how to continue the conversation with the campus community throughout implementation can be found in Section 7.



## 5. SYSTEM EVALUATION

A new element of the Five-Year Plan (2017-2022) is a high-level “system evaluation” of the University of North Carolina at Chapel Hill (UNC) Transportation & Parking operation. Based on Kimley-Horn’s extensive experience evaluating university parking systems of various sizes and complexities across the country and abroad, Kimley-Horn has identified a set of “20 Characteristics” that, when combined into an integrated approach to parking and access management, can provide the basis for a sound and well-managed operation that is positioned to best serve the campus today and into the future.

The 20 characteristics are:

1. Clear Vision and Mission
2. Parking Philosophy
3. Strong Planning
4. Campus Community Engagement
5. Organization
6. Staff Development
7. Safety, Security, and Risk Management
8. Effective Communication
9. Effective and Accountable Revenue Control
10. Financial Planning
11. Creative, Flexible, and Accountable Parking Management
12. Operational Efficiency
13. Comprehensive Facilities Maintenance Programs
14. Effective Use of Technology
15. Parking System Marketing and Promotion
16. Positive Customer Service Programs
17. Special Events Parking Programs
18. Effective Enforcement
19. Parking and Transportation Demand Management
20. Awareness of Competitive Environment

A transportation and parking system that has all twenty of these characteristics is well on its way to being in a class apart from the majority of university programs. The ultimate goal of the System Evaluation process is to identify an easy-to-understand set of criteria that, when used to guide program development and management, can support Transportation & Parking’s continued investment to actively improve the overall experience of traveling to, and around, the UNC Chapel Hill campus.

### 5.1 Evaluation Process

The System Evaluation was conducted on site at UNC Chapel Hill, July 12—13, 2016. The evaluation was conducted by Kimley-Horn team member, Vanessa Solesbee, with support from Matt Sumpter. A variety of Transportation & Parking staff participated in the evaluation process over the two-day period, including the following department leadership:

- **Cheryl Stout**, Director, UNC Chapel Hill Transportation & Parking
- **Than Austin**, Associate Director of Transportation and Planning, UNC Chapel Hill Transportation & Parking
- **Wil Steen**, Associate Director of Parking and Strategy, UNC Chapel Hill Transportation & Parking
- **Mya Nguyen**, Executive Assistant, UNC

Representatives from Kimley-Horn also met with the Transportation & Parking management team and performed a brief field assessment and visual review of the Point-to-Point operation, maintenance and meter repair workshop and Craige Deck parking facility.



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Before beginning the evaluation, Transportation & Parking leadership were asked to share their goals for the process, including what they hoped to learn and what the value they thought the addition of this exercise would add to the Five-Year Plan. Key goals included:

- High-level operational overview that is easily shared with and understood by campus stakeholders
- Learn more about industry innovation, best practices and strategies for improvement
- Identify a “road map” for future investment in organizational and operational improvement, staffing, technology and programs.

While goals for this process were varied, they all centered around one main theme: to help Transportation & Parking “tell the story” about the myriad ways in which their staff, programs and services are working to provide a comprehensive, fiscally-responsible and customer-focused approach to balancing the campus access needs of students, faculty, staff, visitors, alumni and key partners like UNC Hospitals. The following section summarizes the results of the System Evaluation process, including observations about current program status. Each category is organized as follows:

- **Characteristic Overview:** A brief description of what is being evaluated within the criteria, including the importance of that characteristic in the creation of parking and transportation program excellence.
- **Discussion Questions:** Transportation & Parking leadership team members who participated in the process were asked a series of questions about their operation; some were “yes/no” and others were more open-ended.
- **Next Steps:** A list of next steps/key concepts to for Transportation & Parking staff to keep in mind.
- **Assessment Rating:** Using a scale of 1 through 10, where 1 = “poor” and 10 = “excellent”, each of the Transportation & Parking leadership team members who participated in the system evaluation were asked to rank how they felt the program would score today. The consultant team also separately ranked the program based on both information learned during the evaluation process, and previous knowledge of the UNC Chapel Hill program.

### 5.2 Evaluation Results

Overall, the Transportation & Parking System is very well performing although there are some recommended areas for improvement. Table 4 on the next page summarizes the assessment ratings of the System Evaluation, both from the standpoint of T&P staff (Self Rating) and from the Kimley-Horn representative’s standpoint (Consultant Rating).



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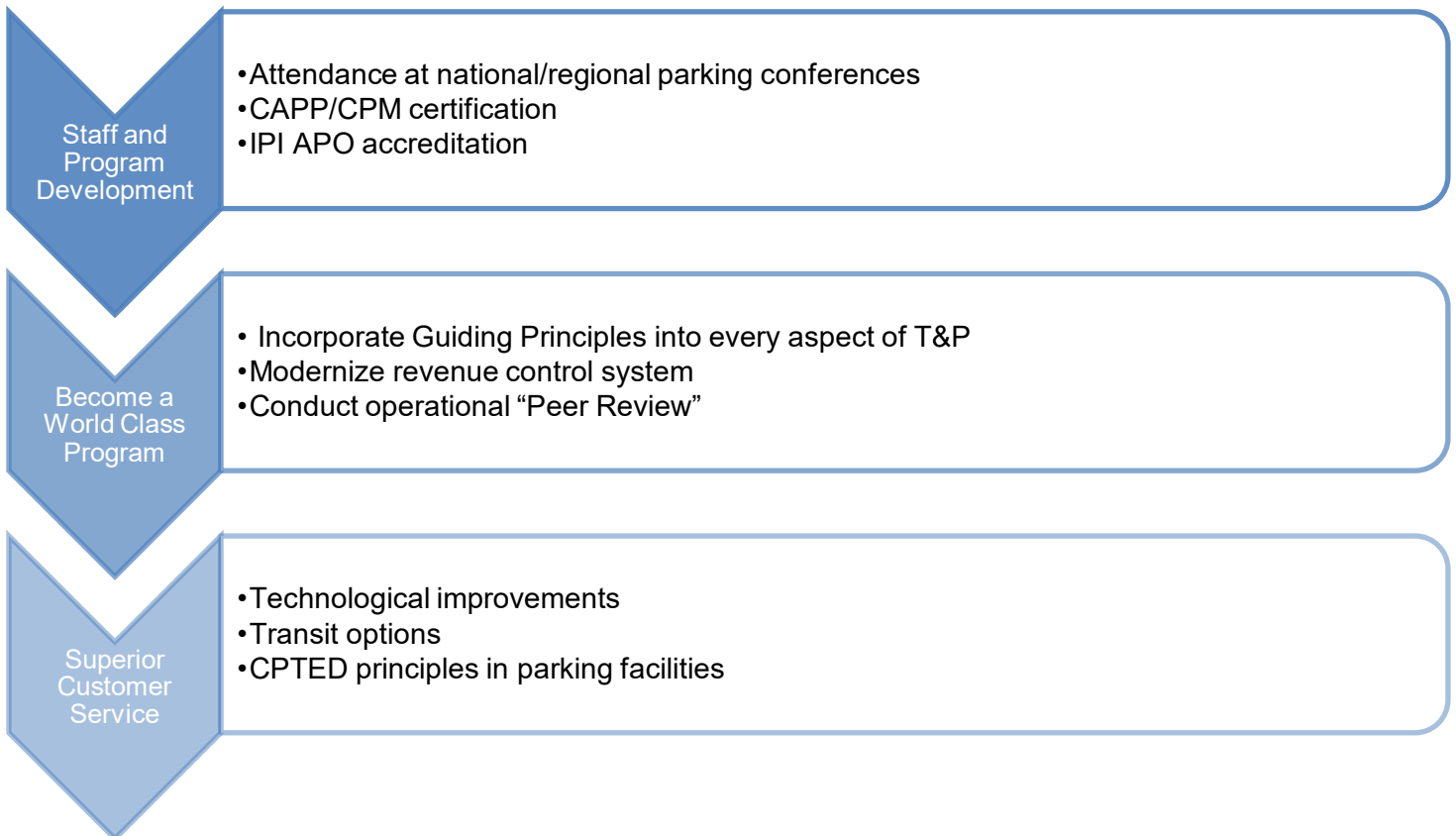
**Table 4 – System Evaluation Summary**

Characteristics		Self Rating	Consultant Rating	Characteristics		Self Rating	Consultant Rating
	1. Clear Vision and Mission	7.5	8.5		11. Creative, Flexible, and Accountable Parking Management	7.5	8
	2. Parking Philosophy	7.5	9		12. Operational Efficiency	8.5	8
	3. Strong Planning	9.5	9		13. Comprehensive Facilities Maintenance Programs	6	6
	4. Campus Community Engagement	9	8		14. Effective Use of Technology	6	6
	5. Organization	8	8		15. Parking System Marketing and Promotion	8	8
	6. Staff Development	6.5	6		16. Positive Customer Service Programs	8	8
	7. Safety, Security, and Risk Management	7	7		17. Special Events Parking Programs	8	7
	8. Effective Communications	8	8		18. Effective Enforcement	9	9
	9. Effective and Accountable Revenue Control	5	5		19. Parking and Transportation Demand Management	9	9
	10. Financial Planning	7.5	8		20. Awareness of Competitive Environment	9	8



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Figure 2 provides some examples of “Next Steps” and goals for the program to improve. A complete description of the System Evaluation process and results is provided in the Task Memo prepared by Kimley-Horn dated September 15, 2016. This Task Memo has also been provided in Appendix B.



**Figure 2 – System Evaluation Next Steps**



## 6. FIVE-YEAR PLAN

The Transportation & Parking is responsible for maintaining and operating the parking facilities on and around main campus, as well as enforcement and administration of the Transportation & Parking System. As previously noted, the System is primarily receipt-supported, with revenue generated from three major sources: student and departmental transportation fees, daytime parking permit revenues, and visitor parking revenues. The Transportation System receives State funds to support the P2P service.

This section develops and summarizes the projected revenues and projected expenditures for the Five-Year Plan, which begins at fiscal year (FY) 17/18 and goes through FY 21/22. Projected expenditures not only include the current expenses incurred by the System, but also new “plan” expense obligations such as inflation, increased transit costs, and recommended system enhancements. The analysis shows that the projected current revenue sources cannot meet the projected expenditures, without providing for additional revenue funding strategies.

### 6.1 FY 16/17 Current Year Projections

Because the Five-Year Plan study occurred during the current fiscal year 16/17, this year provides the baseline for all projected revenues and expenses over the course of the Plan (FY 17/18 through FY 21/22). Current year projections were obtained in coordination with Transportation & Parking staff.

Table 5 and Table 6 summarize budgeted revenue and expense data for FY 16/17.

**Table 5 – Fiscal Year 16/17 Budgeted Revenue**

Parking Permits	\$13,700,000.00
Patient/Visitor Parking	\$5,100,000.00
Events	\$1,100,000.00
Departmental Transportation Fee	\$4,900,000.00
Student Transportation Fee	\$4,227,918.00
Student Transportation Fee-P2P	\$804,696.00
Student Transit-Bus/Van Replacement	\$125,054.00
Student Transportation Fee-Safe Ride	\$106,568.00
Debt Supplement	\$560,282.00
Citations (net)	\$75,000.00
P2P State Funding	\$187,457.00
All Other Revenue	\$250,000.00
<b>Total Revenue</b>	<b>\$31,136,975.00</b>



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**Table 6 – Fiscal Year 16/17 Budgeted Expense**

Salaries/Wages	\$5,362,639.00
Temporary/Student Wages	\$600,000.00
Fringes	\$1,993,748.00
Supplies	\$600,000.00
Utilities	\$700,000.00
Repair/Maintenance	\$1,000,000.00
Service Agreements	\$1,686,070.00
All Other Operating Costs	\$1,194,458.00
UNC Admin Charges	\$338,652.00
Chapel Hill Transit	\$7,923,860.00
Regional Transit	\$853,945.00
Debt Expense	\$7,516,611.00
Debt Encumbered	-
Transfer to Police Department	\$250,000.00
Capital Repair	\$500,000.00
<b>Total Expense</b>	<b>\$30,519,983.00</b>

As shown in Table 5, the most significant sources of revenue are parking permits, visitor parking fees, and transportation fees paid by students and University departments. These sources represent approximately 95% of revenue.

As shown in Table 6, the highest expense categories are transit, debt expense, and salaries/wages/benefits. These three categories make up approximately two-thirds of the total expense budget. Transit expenses include the direct costs paid by the University to the following transit systems:

- Chapel Hill Transit (CHT)
- Regional Transit: Go Triangle (GT), Piedmont Authority for Regional Transportation (PART), Chatham Transit Network (Chatham)
- Point-to-Point system (P2P)

Historically, transportation fees received from students and University departments have not met all the expenses required to maintain the transit system. These expenses include the direct transit costs for the systems noted above, as well as costs to maintain the park and ride lots which are carried within various expense categories. As a result, the Parking System has been required to subsidize the Transportation System.

As established in the previous Five-Year Plan and reinforced in the Guiding Principles, it was desired to reduce the overall subsidy the Parking System provides in order to more equitably share the cost of the entire system with all of the users. At the beginning of the last Plan in FY11/12, the Parking System subsidy to the Transportation System was approximately \$1.5M per fiscal year. Because of policies implemented by the University within the last Plan, this subsidy was reduced to \$1.0M by FY15/16. At the start of the current FY 16/17 year projections, the Parking System subsidy was also estimated to be at \$1.0M.





## 6.2 Five-Year Plan Obligations

The financial obligations of the Transportation & Parking System for the next five years may be classified into three major categories:

- Expenses associated with the operations of the Parking System (e.g., routine maintenance, administrative operations, ongoing operational expenses)
- Expenditures to support the University’s participation in funding fare-free Transit Systems that serve the campus (Chapel Hill Transit and Regional Transit)
- Debt payments to service capital expenditures for existing and future parking structures.

This section reviews the planned increases in expenditures associated with transit obligations, inflation estimates on existing expenses, and reviews the additional capital expenditures necessary to increase parking supply. Planned increases consider how much those expenses increase if the FY16/17 baseline cost were to be kept constant over the next five years.

**Table 7 – Plan Obligations**

Obligation	5 Year Total	Average Growth Per Year
Chapel Hill Transit	\$7,730,700	\$1,546,140
Regional Transit (Go Triangle, PART, Chatham)	\$1,056,837	\$211,367
P2P — TransLoc	\$350,000	\$70,000
Inflation on Existing Expenses	\$4,183,781	\$835,996
Patient/Visitor Deck Debt Payment	\$1,168,000	\$233,600
<b>Total Needed over 5 years to Meet Growth</b>	<b>\$2,897,103</b>	
<b>Growth as Percent of Annual Budget</b>		<b>8%</b>

### 6.2.1 Transit

Transit providers (Chapel Hill Transit, Go Triangle, PART, and Chatham) provided the estimated transit expenses over the next five years to UNC as part of the Plan. Additional expenses for the Point-to-Point system were estimated by UNC staff. In total, the transit cost is expected to have planned increases of \$9,137,537 above the current FY16/17 expenses over the next five years.

### 6.2.2 Inflation on Existing Expenses

Inflation projections include the following existing static expenses: Salaries/Wages, Fringes, Supplies, Utilities, Repair/Maintenance, Service Agreements, All Other Operating Costs, and UNC Admin Charges. The previous Five-Year Plan projected an average of approximately 3% per year for inflation across all the items noted. For this Plan, UNC staff reviewed each expense item independently for their respective inflation increases from the last five years, and assigned a new projected inflation rate to each item individually. Based on that analysis, the current Plan averages approximately 2% inflation per year which totals \$4,183,781 over the life of the Plan and is more consistent with actual experience from the last five years.

It is important to note that these inflation estimates are based on static expenses only. Static expenses do not consider planned system enhancements which may additionally affect overall expenses on the system. Examples include additional operating expense if the Patient/Visitor deck is constructed, or reduced utility expenses if more LED fixtures are replaced in existing parking decks.



### 6.2.3 Patient/Visitor Deck

Campus and hospital growth indicates a need for additional parking for patient and visitor users. In the previous Plan, this demand was projected at 430 patient/visitor spaces. For the current Plan, the campus Master Plan has estimated the new campus-wide parking demand to be 800 spaces. To save for the future design and construction of the deck, the Five-Year Plan incorporates the projected debt payment into the obligation calculations. The five-year total for the patient/visitor deck debt payments is \$1,168,000, which has been equally distributed each year of the Plan = \$233,600 / year.

## 6.3 System Enhancements

Feedback received during the stakeholder outreach was critical to prioritize key issues and improvements that should be considered in the Five-Year Plan. Termed “System Enhancements,” these recommended measures reflect improvements to the Transportation & Parking System that will improve the overall customer experience, increase sustainability, and consider financial performance metrics. The following table summarizes the System Enhancements that are incorporated into the Plan. Additional descriptions for each measure is located below.

**Table 8 – System Enhancement Summary**

System Enhancement	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22
<b>LED Parking Deck Installations</b>	Rams Head/ Cobb	Rams Head/ Cobb	Jackson Circle/ Business School	Jackson Circle/ Business School	
<b>PARCS</b>	Implementation	Implementation	Implementation		
<b>Bike Share</b>	Implementation				
<b>P2P - TransLoc</b>	Implementation				
<b>Campus Bird</b>	Ongoing				

### 6.3.1 LED Lighting

Light Emitting Diodes (LED) lighting technology provides the opportunity to improve parking facilities in several metrics, when compared to the existing High-Intensity Discharge (HID) light systems:

- Customer Experience: LED light fixtures increase lighting quality and allow users to see better. Improved light also improves safety and security.
- Sustainability: LED technology reduces the electrical power consumption, reduces landfill waste, and reduces hazardous materials waste.
- Financial: Maintenance and Operating costs associated with cleaning and replacing lamps are reduced, and lower energy usage reduces the utility bill.



During the last Plan, two parking decks had successful LED fixture upgrades: Craige Deck and Dogwood Deck. For this Plan, an additional four parking decks are recommended to receive LED fixture upgrades:

- Rams Head Parking Deck
- Jackson Circle Parking Deck



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- Cobb Parking Deck
- Business School Parking Deck

The cost for this enhancement is already incorporated within the existing repairs and maintenance budget and will not incur an additional expense onto the System.

## 6.3.2 Parking and Revenue Control System (PARCS)

A PARCS system represents the equipment which all users to enter and exit a facility, including revenue control. This includes the gate arms, card readers, ticket dispensers, pay machines, and background software which run the system and allow program management reporting. The existing PARCS at UNC originated over 30 years old, and despite some periodic updates over the years, is outdated. It is recommended that UNC proceed with a full system upgrade on all parking decks and parking lots, which will provide the following benefits:

- Customer Experience: PARCS systems lead to improved parking availability and reliability.
- Sustainability: More reliability and faster equipment operation leads to less vehicle idle time, reducing overall carbon emissions.
- Financial: Effective PARCS systems lower operating costs and decrease parking abuse.
- Security: The revenue control equipment does not meet current Payment Card Industry Data Security Standards (PCI DDS) compliance standards for keeping payment card data secure. Besides a potential liability risk, this also represents reduced level of service to users.



The anticipated cost to upgrade the PARCS equipment as well as to upgrade other portions of the infrastructure to support the new system is approximately \$5 Million.

## 6.3.3 Bike Share

A bike share program is a service in which bicycles are made publicly available for rental from stations distributed around campus. Some of the systems being evaluated do not have stations, but geofence the bikes and park at normal racks. Bike share programs across the country have introduced a convenient alternative transportation option to students, citizens, and visitors.

It is recommended for the System to formally implement a bike share program on campus which also has the potential to be integrated with future programs at the Town of Chapel Hill and the Town of Carrboro.



- Customer Experience: Bike share programs were noted during Public Outreach as being a highly-desired enhancement to the System. Cycling as a form of transportation is linked to improvements in physical and mental health.
- Sustainability: Fewer vehicles will be on the road reducing overall carbon emissions.
- Financial: Alternative transportation options will reduce campus transit and parking demands.

The bike share program is estimated to cost \$130,000/year for a cumulative five-year Plan total of \$650,000. This would provide approximately 75 bikes distributed between 9 stations around campus.



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### 6.3.4 TransLoc (P2P)

TransLoc is an online and app-based transit locating system. It is already being used by the Go Triangle system to provide real-time data to show where buses are along the routes. For this Plan, it is recommended to extend the TransLoc integration to the P2P system.

- Customer Experience: TransLoc provides the following benefits to the transit user:
  - Reservation System
  - Access vehicle location in real time
  - Enhanced night safety
  - Reduced wait times
  - Improved ADA service
- Sustainability: Transit vehicles idle for less time reducing overall carbon emissions.
- Financial: TransLoc will help improve utilization of resources—personnel and equipment—and will lead to more efficient dispatch practices.

This system enhancement is estimated to cost \$70,000/year for a cumulative five-year Plan total of \$350,000.

### 6.3.5 Campus Bird

Campus Bird is an interactive campus map platform already being used by the University and can be accessed at <http://www.unc.edu/maps/>. The Transportation & Parking will add new modules to the Campus Bird system related to special event management and parking information (locating parking, points of interest, transit stops).

The cost for this enhancement is already incorporated within the existing budget and will not incur an additional expense onto the System.

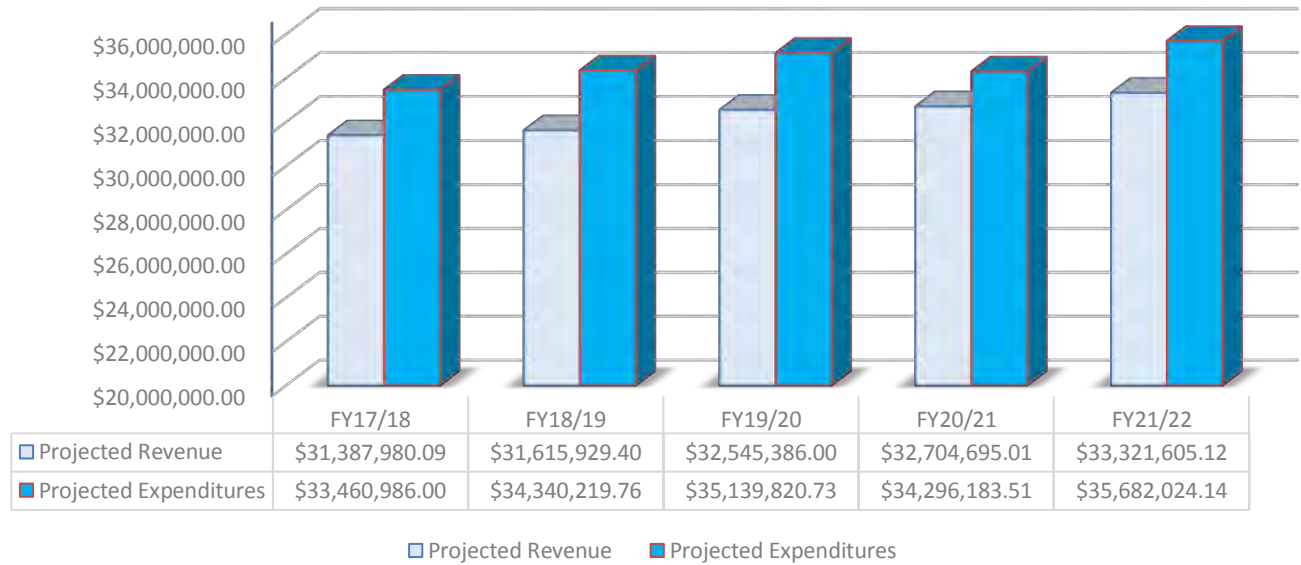
## 6.4 FY 17/18 – FY 21/22: Projected Revenue vs. Projected Expenditures

Figure 3 shows the projected revenue versus the projected expenditures for the Five-Year Plan starting FY17/18 through FY21/22. Starting from the FY 16/17 baseline, these projections consider all static expenses, planned expense obligations, and system enhancements. Each year, the expenses are projected to be greater than revenues with the projected deficit averaging \$2.3 Million annually. Over the course of the Plan, the shortfall would total \$11.3 Million if no additional funding sources were considered. See Appendix A for a complete breakdown summary of revenue and expenses for the Plan.



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Projected Revenue vs Projected Expenditures (FY17/18 - FY21/22)



**Figure 3 – Projected Revenue vs. Projected Expenditures (FY17/18 – FY21/22)**



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## 6.5 Funding Strategy

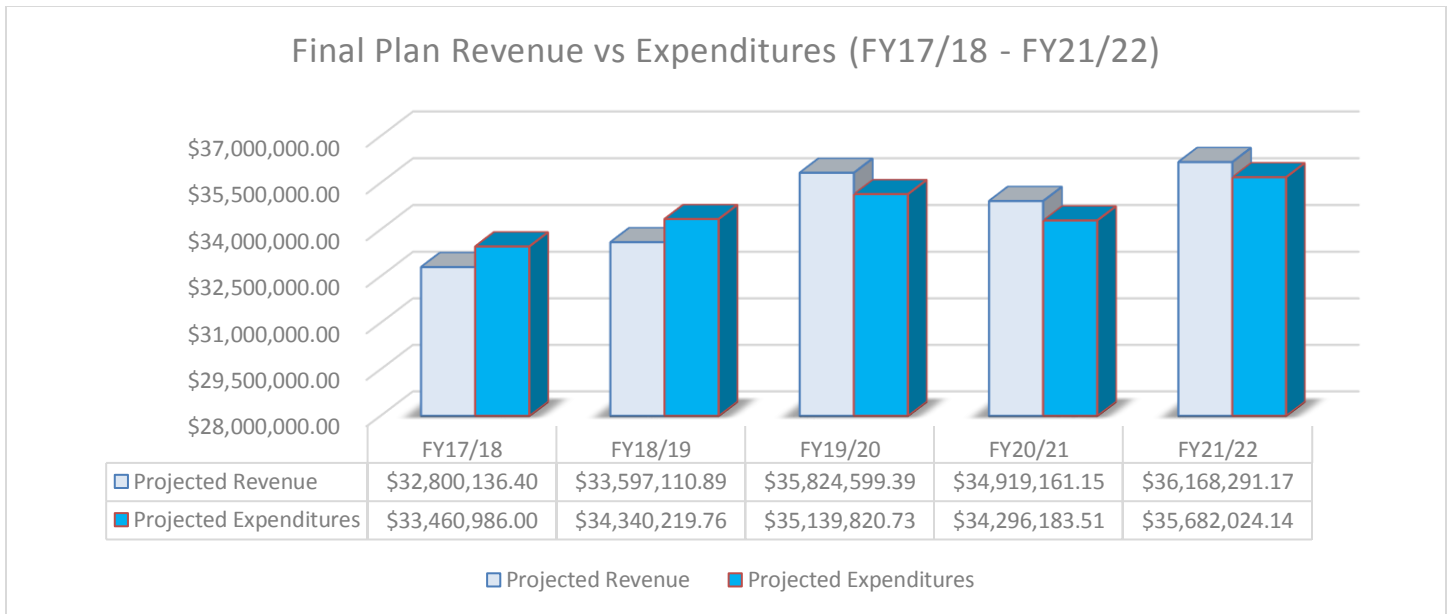
Table 9 shows the final recommended funding strategy, which combines elements of the Parking System funding strategy with the Transportation System funding strategy. These strategies are further detailed later in this section.

**Table 9 – Final Recommendation**

	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22
Annual Daytime Permit Increases <sup>1</sup> (1% = \$0.12 to \$0.88/bi-weekly period)	+1%	+1%	+1%	-	-
Department Transportation Fee Increases <sup>2</sup>	-	-	-	-	-
Student Transportation Fee Increases:					
Local/Regional Component	+\$5.44/yr (3.5%)	+\$5.64/yr (3.5%)	-	-	-
Weeknight Parking Component (Overall rate)	-	-	+\$6 (\$6)	+\$2 (\$8)	+\$2 (\$10)
Weeknight Parking – Employee Permit <sup>5</sup>	-	-	\$234-\$402/yr	\$234-\$402/yr	\$234-\$402/yr
Weeknight Parking – Visitor Parking <sup>3</sup>	-	-	Y	Y	Y
North Campus Hourly Rate Increases <sup>4</sup> (Overall rate)	+\$0.25/hr (\$1.75/hr)	- (\$1.75/hr)	- (\$1.75/hr)	- (\$1.75/hr)	- (\$1.75/hr)

1. Parking subsidy set at \$800K/yr (reduced from \$1M in FY16/17). Without the parking subsidy reduction, the permits would require increases of +2%, +1%, +1%, and +1% for the first four years, respectively.
2. Department Transportation Fee supports 50% of Local/Regional Transit cost (48% in previous Plan)
3. Paid visitor parking hours to be extended
4. No planned increases to healthcare patient/visitor rates (Dogwood, ACC, Hospital ADA)
5. Employees have a pay based sliding scale for permit cost

Figure 4 below reflects the final Plan revenue vs. expenditures after the funding strategies are implemented. The Plan results in an estimated surplus of \$390K over the next five years.



**Figure 4 – Final Plan Revenue vs. Expenditures**

### 6.5.1 Funding Strategy Considerations

In the Transportation & Parking System, the revenue components of the Parking System must remain separate from the revenue components of the Transportation System. Therefore, any planned revenue increases (“funding strategies”) must be considered separately for the Parking and Transportation Systems, respectively.

As previously discussed, the following items are the major planned expenditure increases to the Parking System:

- Inflation on existing expenses
- Patient/Visitor deck debt payment
- System enhancements: LED lighting, PARCS, Bike share, P2P – Transloc, Campus Bird

As previously discussed, the following items are the major planned expenditure increases to the Transportation System:

- Transit planned expenditure increases

To eliminate the projected shortfall, various funding strategies were reviewed and compared to campus goals, stakeholder feedback, and the Guiding Principles. Based on the Outreach efforts, meetings with ACT, and meetings with the Executive Sponsor Group, the most consistent feedback related to funding strategies for the Five-Year Plan included:

- Utilize existing capital reserves.
- Minimize the impact to daytime permit holders.
- Do not increase costs for South Campus patients/visitors (i.e. hospital visitors).
- Equitably distribute the rising cost among all system users.

The funding strategies presented in the following subsections are considered to best align with the Guiding Principles and with stakeholder feedback received throughout the planning process.



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### 6.5.2 Utilize Existing Reserves

A key component of funding the Transportation & Parking System shortfall for the next five years will be to utilize existing reserves. Capital and operating reserves can be used directly for planned Parking System expenditures, and transportation reserves can be used directly for Plan Transportation System expenditures.

#### Parking System Reserves

Capital reserves refers to money dedicated to long-term capital investment projects or other large anticipated expenses. There is an accumulated capital reserve of \$1.15M which can be directly used to offset new Parking System expenditures in the Plan.

Operating reserves refer to a fund balance set aside to stabilize the Department's finances by providing a cushion against unexpected events, losses of income, and large unbudgeted expenses. Historically the operating reserve for the Department has been set at 90-days. However, industry standard typically allots an operating reserve of 30-days. Transportation & Parking staff reviewed this with leadership within the Finance and Administration Division, who concurred that reducing the operating reserve to 30-days was acceptable and still conservative. With this reduction from 90-days to 30-days, an additional \$4.50M is freed up to use for anticipated expenses within the Plan.

Combining the capital and operating reserves together yields an available resource = \$5.65M. It is recommended that the reserves be used to fully fund the PARCS and Bike Share system enhancements, which together are estimated to cost about \$5.65M.

#### Transportation System Reserves

The previous Plan revenues exceeded original revenue projections for the Transportation System by approximately 2.2% over the five-year Plan. In that same time period, expenditures were less than original projections by approximately 4.5%. This combination resulted in a transit fund surplus within the Department Transportation Fees (DTF) = \$2.84M and reserves within the Student Transportation Fees = \$1.07M. These reserves can be used to help fund future transportation obligations for the current Plan.

### 6.5.3 Parking Funding Strategy

Table 10 shows the recommended Parking Funding strategy.





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**Transportation & Parking Five-Year Plan**

**Table 10 – Parking Funding Strategy**

	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22
Annual Daytime Permit Increases <sup>1</sup> (1% = \$0.12 to \$0.88/bi-weekly period)	+1%	+1%	+1%	-	-
Student Transportation Fee Increases:					
Weeknight Parking Component (Overall rate)	-	-	+\$6 (\$6)	+\$2 (\$8)	+\$2 (\$10)
Weeknight Parking – Employee Permit <sup>4</sup>	-	-	\$234-\$402/yr	\$234-\$402/yr	\$234-\$402/yr
Weeknight Parking – Visitor Parking <sup>2</sup>	-	-	Y	Y	Y
North Campus Hourly Rate Increases <sup>3</sup> (Overall rate)	+\$0.25/hr (\$1.75/hr)	- (\$1.75/hr)	- (\$1.75/hr)	- (\$1.75/hr)	- (\$1.75/hr)

1. Parking subsidy set at \$800K/yr (reduced from \$1M in FY16/17). Without the parking subsidy reduction, the permits would require increases of +2%, +1%, +1%, and +1% for the first four years, respectively.
2. Paid visitor parking hours to be extended
3. No planned increases to healthcare patient/visitor rates (Dogwood, ACC, Hospital ADA)
4. Employees have a pay based sliding scale for permit cost

As previously noted, the Parking System provides a subsidy for the Transportation System. At the start of the current FY 16/17 year projections, the Parking System annual subsidy was estimated to be at \$1.0M which reflected a \$500,000 subsidy reduction over the course of the last Plan. In accordance to the Guiding Principles and from Stakeholder feedback, the recommendation for this Plan is to reduce the annual subsidy to \$800,000 during the first year of the Plan (FY 17/18) and keep it constant for the duration of the Plan.

The other Parking System planned expenditures which require additional funding include the inflation on existing expenses (\$4.180M) and new patient/visitor deck debt payment (\$1.168M). The LED fixture upgrades for four parking decks and Campus Bird integration already have funds allocated in the existing program, and therefore do not incur further expense.

As indicated in Table 10, additional funding was considered through the following sources:

- Annual daytime permit increase
- North Campus visitor parking rate increase
- Weeknight parking

**Parking Permits**

Parking permits are purchased and issued to various user groups (faculty, staff, commuting students, and on-campus residential students) to allow parking on or near campus.

On-campus parking is limited to the requirements noted in the University of North Carolina at Chapel Hill Development Plan and subsequent updates. Departments receive an allocation of parking permits to distribute based on criteria established by the Dean/Director/Chair. Student permit prices are determined based on the permit type and duration of the permit. Faculty / Staff permits are based on a sliding scale fee structure in which permit holders are charged fees in accordance with their salaries. Rates also vary depending upon the permit type and duration of the permit. For FY 16/17, the minimum salary range is set at \$25,000. But to align with the University’s lowest wage scale, it is recommended that the lowest bracket level be raised \$29,000. The other brackets have remained the same.



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Commuter and resident students also are required to have a permit to park on campus. The number of student permits offered for sale is limited, and first year students are neither eligible to park on campus nor eligible to purchase a parking permit. Parking permits for commuter and resident students vary from \$227 - \$768 per year. The number of on-campus parking permits issued to students is not expected to change significantly over the next five years.

Permit pricing may be obtained at the Transportation & Parking website: <http://move.unc.edu/policy/pricing/>

With the parking subsidy changed to \$800,000 per year, the Five-Year Plan recommends that all parking permits be increased by 1% in FY 17/18, FY 18/19, and FY 19/20, respectively. No increase is required in FY 21/22. The proposed permit increases will increase revenues by an additional \$2.6M. (Note: Without the subsidy change, parking permits would require increases of 2% in FY 17/18, and 1% in FY 18/19, FY 19/20, and FY 20/21, respectively.)

### Weeknight Parking

Night parking restrictions vary across the campus. Some lots offer unrestricted parking on weekends and after 5:00 PM on weekdays, and parking in other lots is allowed after 9:00 PM on weekdays. Information regarding the hours of operation is displayed on the signs located at the entrances to each lot.

There is a demand for night parking due to students/faculty/staff who return to campus after hours, night classes, sporting and entertainment events, and patients/visitors to the Healthcare System. While some evening users possess permits, a significant number of vehicles parked at night do not have permits. The Parking System incurs expenses for providing night parking (e.g., security, lighting, maintenance, parking lot cleaning). However, evening users are not contributing to the costs of the Parking System if they are not permit holders. To address this, the Five-Year Plan recommends implementing a program to charge for weeknight parking. To have adequate time for Transportation & Parking to create the weeknight parking program, and to engage in campus and community communication efforts, it is not recommended to begin the program until year three of the Plan (FY 19/20).

Weeknight parking will be administered as follows:

- Applies for weeknight, not weekend, parking.
- Daytime and Park-and-Ride permits are honored at night without any additional fee.
- Parking is not zoned, and will be on a first-come, first-serve basis in most lots throughout campus. This will provide freedom to park in areas closer to the user's destination.
- Employee weeknight permits: Employees who do not have daytime permits will have the option to purchase weeknight permits for the same rates as currently charged for the Park-and-Ride permits. The permit rate scale is estimated to be \$234-\$402/year.
- Student weeknight parking fees: Except for first-year students, all undergraduate and graduate students will be charged a fee for weeknight parking. The fee will be \$6 in FY 19/20, \$8 in FY 20/21, and \$10 in FY 21/22. First-year students do not pay the fee and are not eligible for weeknight parking.
- Visitor parking hours: Paid visitor/metered parking hours will be extended in areas not currently operating weeknights.
- Daily weeknight permits will be available for public or infrequent users to purchase.

The projected revenues associated with weeknight parking is estimated at \$2.0M.

### North Campus Visitor Parking

In addition to the weeknight parking adjustments, North Campus visitor lots and spaces will increase by \$0.25/hour in the first year of the Plan. This raises the hourly rate to \$1.75/hour for the duration of the Five-Year Plan. There are no planned increases to healthcare patient/visitor rates (Dogwood, ACC, or the Hospital ADA) in keeping with the Guiding Principles and stakeholder feedback obtained during the planning process.

The projected revenues associated with North Campus visitor parking rate increase is estimated at \$0.9M.



### 6.5.4 Transportation Funding Strategy

Table 11 shows the recommended Transportation Funding strategy.

**Table 11 – Transportation Funding Strategy**

	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22
Department Transportation Fee Increases <sup>1</sup>	-	-	-	-	-
Student Transportation Fee Increases:					
Local/Regional Component <sup>2</sup>	+\$5.44/yr (3.5%)	+\$5.64/yr (3.5%)	-	-	-

1. Department Transportation Fee supports 50% of Local/Regional Transit cost (48% in previous Plan)
2. Student Transportation Fee supports 41.5%-43.2% of Local/Regional Transit cost (42% in previous Plan)

The Transportation System planned expenditures which require additional funding are primarily from increases in Transit costs (CHT, Regional, P2P). The TransLoc system enhancement is estimated to cost \$70,000/year for a cumulative five-year Plan total of \$350,000. In addition, reducing the parking subsidy onto the Transportation System means that additional revenue must be generated.

As previously noted, a portion of the system will be funded through existing transit surplus from the previous Plan. However, this does not fully close the revenue vs. expenditure deficit. Therefore, additional funding strategies were considered from the following sources:

- Department Transportation Fee (DTF) increases
- Student Transportation Fee (STF) increases

#### Transportation Fees (Department and Student)

Transportation fees directly pay for the university-funded transit services that many students and employees use. Department Transportation Fees (DTF) are assessed at 0.3% of payroll for faculty, staff, and employees of the University (\$2,998 per million of departmental payroll assessed). Student Transportation Fees (STF) are an annual fee assessed to all undergraduate and graduate students, and may vary year by year (\$193.64 for FY 16/17). Based upon actual usage and cost to the system, the required contribution of DTF vs. STF to the overall transportation system costs were considered. While relative percentages vary year-by-year, by FY 16/17 this transportation system cost share resulted in 48% from the DTF, 42% from the STF, and the remaining 10% paid by the parking subsidy. For the current Five-Year Plan, it was determined that an appropriate DTF cost share should move to 50%. Because the parking subsidy remains at a constant \$800K per year (8.5% to 6.8% cost share), the STF cost share varies between 41.5% in FY 17/18 to 43.2% in FY 21/22.

No increases are planned for the DTF fee, which will remain at 0.3% of payroll through all five years of the Plan. STF fees will have 3.5% increases for the first two years of the Plan (FY 17/18 and FY 18/19), but no other increases the final three years.



## 7. IMPLEMENTATION PLAN

A unique element of the new Five-Year Plan is the creation of a communication and outreach strategy to complement Plan recommendations. This chapter of the report explores the following topic areas in a step-by-step way designed to guide Transportation & Parking staff as they work to keep the campus community informed and engaged throughout implementation.

- Program Vision, Mission and Branding
- Audience Segmentation
- Messaging
- Strategies to Support Implementation

The next section will outline components of a Strategic Communications Plan that has been developed specifically to support the implementation of recommendations outlined new Five-Year Plan. The Strategic Communications Plan has been designed to:

- Educate Transportation & Parking staff about the basic elements that go into creating a strong organizational identity and brand; and
- Support and encourage new stakeholder communication and education efforts as the university works to develop mobility management solutions that increase the ease with which the students, faculty, staff, visitors and the larger Chapel Hill community travel to and around the UNC campus.

### 7.1 Strategic Communications Plan Components

Regardless of whether an organization is budgeting for dollars, staff time and/or scarce resources, strategic investment in marketing and communications often slides to the bottom of the list. However in reality, thinking strategically about communications, public education and media relations decisions can support every other aspect of a parking and transportation system's operations.

This section highlights opportunities to proactively engage key user groups in policy and programmatic decisions that will impact their experience accessing the UNC Chapel Hill campus. Key elements covered in this section include:

- Branding, Messaging and Audience Segmentation: Ways to build connection, pride and ownership among staff and system users.
- Implementation Tactics & Tools: How to organize the various elements of a communication plan for practical implementation and progress tracking.

#### KEY DEFINITIONS

- ▲ **Brand Position:** A Brand Position is a simple statement that conveys the essence of an organization and provides a promise to patrons about type of interaction they can routinely expect. It also sets the tone for the development of the actual brand, which will only resonate with UNC Transportation & Parking patrons if it reflects the true character of the organization it represents.
- ▲ **Messaging:** A Messaging Strategy is the foundation for an organization's marketing efforts. Put simply, a messaging strategy tells the audiences why they should visit your organization, what they will find when they do and why they should care. For a brand to resonate with its customers and partners, the messaging strategy needs to inspire confidence that the university understand its patron and partner needs, and has something relevant and unique to offer.
- ▲ **Vision:** This statement should be very aspirational and speak to the Transportation program's ultimate point of success.
- ▲ **Mission:** This statement defines what a department is, why it exists and its reason for being.



### 7.1.1 Branding, Messaging and Audience Segmentation

Intentional promotion and positioning of parking and transportation service offerings at UNC Chapel Hill will provide opportunities for increased user recognition and engagement, as well as increased understanding about existing and future service areas.

#### Branding

A brand goes beyond an organization's name, logo and visual identity. A brand represents an unspoken promise, or commitment – of quality, value, professionalism and financial stewardship – about the consistent experience patrons can expect when interacting with UNC Transportation & Parking. Over time, a brand becomes synonymous with an organization. When patrons see an organization's signage, communication pieces or uniforms, an emotional connection is created that evokes the memories and feelings that a person associates with a particular organization. Branding creates value and starts with truth. It identifies shared values and areas of expertise; for example, what campus community needs are and are not being met by the department? What story is your current brand telling about the department? What story do you want to tell? An organizational brand provides the foundation for the creation of content and tone for marketing, customer relations efforts and overall organizational culture.

While discussed in greater detail in the System Evaluation Report (Appendix B), the key pieces of establishing an organizational brand identity include: 1) creating an organizational vision, mission and set of shared values, 2) developing key messaging and 3) identifying the organization's key audiences.

Here is a helpful way to think about how each of these pieces – organizational mission, vision, audiences and messaging – all fit together to create one cohesive brand position:

#### BRAND POSITION:

To (Target Audiences):

We are (Unique Identifier):

That (Provides "X" to the customer):

By (Details that support "X"):

#### VISION:

- How would you define your ultimate point of success?
- What umbrella task/goal do you possess that will be worked on indefinitely?

#### MISSION:

- What will you do to continuously work towards your vision?
- What markets are you serving and what benefit do you offer them by working towards your vision?

#### IDENTIFY:

Questions to identify key words in a statement that presents the means in which your organization will work towards the vision:

- What perceptions, habits, or beliefs do we need to work on or develop in order to grow?
- What are we "selling"?
- Who do we benefit?
- What's in our toolbox (i.e., what resources do we provide)?

Utilizing the brand approach/positioning strategy effectively will help create an image or identity in the mind of the parking and transportation patron and help create a connection between the person and the organization.



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### Messaging

Messaging provides a foundation for the creation of content and a tone for marketing and outreach. Messaging for Transportation & Parking should focus heavily on how the department is working to align policies and programs with the campus community's strategic goals related to excellence in academic, research and medicine, commitment to diversity and public service.

The three key elements to effective messaging include:

1. **Consistency:** Keeping similar tone/feeling when communicating to an audience.
2. **Frequency:** The driving force – keeping the message in front of the audience as often as possible. In addition to providing “must have” information about construction, special events and programs, information should be shared that reinforces the goals of the organization and remind users of the bigger picture.
3. **Anchoring:** Messaging that provides a compelling call to action. Memorable, high impact language and visual presentation that talks to the patron, not at the patron.

Using both feedback gathered as part of the new Five-Year Plan campus outreach and engagement efforts (i.e., in-person interviews and/or MetroQuest responses) and the framework of the Guiding Principles, the following basic messaging approaches were identified as angles that resonated with the campus community.

1. **Emphasize Value and Transparency.** When making policy, program and/or rate change decisions, it is important to share the “value proposition” with the campus community. What exactly are their permit / fee dollars funding and/or why are they being asked to change their behavior? Tying decisions back to how they specifically benefit the campus community will be key as Transportation & Parking works to implement the Five-Year Plan.
2. **Serve a Diversity of Users.** Balance adequate parking (for cars, bikes, mopeds and motorcycles) with access to transit and ride sharing services.
3. **Emphasize Equity.** Develop a more equitable balance of the cost of the Transportation & Parking System to all users.
4. **Leverage Community Partnerships.** Maintain commitment to promote use of Go Triangle and other regional transit options for access to the main campus. Promote and advertise the upcoming bike share program and its partnership with the towns of Chapel Hill and Carrboro.
5. **Manage Today and Plan for Tomorrow.** Making investments in forward-thinking technology, safety improvements and communication infrastructure today will better meet campus access needs today as well as prepare for significant future shifts in driving and commuting behavior.

This list is not meant to be exhaustive but instead should be used as an example and starting point for future message development.

### Audience Segmentation

Every successful communication and outreach plan starts with identification of one's audience. While every unique communication effort doesn't have to be tailored to meet a specific audience's needs, it is important to keep in mind that communication – especially through tense or challenging times – isn't always a “one size fits all” solution. Audience identification can help UNC Transportation & Parking know when additional communication or explanation of a situation might be needed. It also helps prevent overwhelming customers with irrelevant or too much communication, and can assist with making choices about communication tools will be most effective for a particular audience.

The following groups have been identified as primary audience segments for Transportation & Parking:

- **Pre-matriculation undergraduate students and transfers:** This audience is one of the most important to educate effectively because it is one of the department's first “touches” with this user group. Positioning Transportation & Parking as a resource, not an enforcer, will help the relationship with its newest customers begin on a positive note.
- **Undergraduate students:** This is one of the most difficult audiences to reach because their attention is being drawn in so many different directions. It will be vital to understand the (ever-changing) habits of this group and take the department's messages to where students are actually listening. Through stakeholder meetings, it was



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repeatedly heard that social media is too “noisy” and that students are starting to gravitate back to a more “analog” approach (i.e., word of mouth from peers, RAs, affinity groups). It was also shared that video is still a great way to connect with both students and staff, especially something that is short and easily watched on a mobile device on the go.

- **Graduate students:** Graduate students are typically very connected to their departments, often through a central department administrator that distributes important information. This audience is often more sophisticated than the undergraduate audiences and messaging should be similar in tone to faculty/administration communication.
- **Faculty:** Faculty have different community needs from students and even graduate students, so their opinions must be taken into account and they should be messaged to in a thoughtful and proactive way. Similar to graduate students, faculty keep different hours than undergraduates and face unique challenges like being displaced for sporting events. Faculty members are typically very connected to their departments, often through a central department chair that distributes important information. By keeping these department chairs/leaders informed and up to date with Transportation & Parking information (similar to what was done with ACT) can be an effective way to promote peer-to-peer communication, which is often received as more “valid” information than when coming directly from Transportation & Parking staff.
- **Staff:** This audience will also be one of the hardest to reach due to their varied schedules, levels of access to/use of online communication tools and general ability to get/stay connected to campus beyond their positions. This audience is can also be challenging to address because they generally face more financial challenges in paying for and finding parking than faculty. Members of the UNC Staff Forum actively participated in stakeholder meetings as part of the Five-Year Plan and when asked, said that their group could help share messages / information about parking and transportation updates with their peers. It is strongly recommended that Transportation & Parking leverage this affinity group to connect with staff.

### 7.1.2 Strategies to Support Implementation

As UNC Transportation & Parking staff rightly understand, communicating about parking requires both technical savvy and an understanding of the often-intense emotions that are experienced when dealing with parking concerns and issues. Regardless of what the message is (benign or controversial), any change to a customer’s “normal” (predictable) parking routine can lead to frustration, complaints and rapid dissemination of incorrect information through informal networks. And in the absence of information, one thing is certain: people will make up their own “truths”, so it is strongly recommended that UNC Transportation & Parking continue its investment in organizational time and resources to ensure that staff have the right communication tools and tactics to successfully communicate about the proposed rate adjustment.

The investment in communication and campus outreach should not be a one-time investment, as frequent stakeholder engagement will continue to build the trust and relationships UNC has already developed with the campus and community. Like the Five-Year Plan process, engagement done in a transparent manner helps to show how the Department is incorporating feedback into its policy and programmatic decisions.

Building on the foundation laid in the previous sections, this final section details specific tactics and tools that UNC Transportation & Parking should consider as the new Five-Year Plan is rolled out and implemented over the next several years.

#### Immediate (Summer – Fall 2017)

- Designate a Transportation & Parking Champion:
  - This is an incredibly important first step. Identify who will serve as the main point of contact for the department as well as one to two supporting spokespeople. These individuals should be extremely well-versed in the key messages / talking points and have experience dealing with intense and unpredictable situations. It can be helpful to have two people work in partnership when doing community presentations – one that can speak from a policy / “bigger picture” perspective (and be the champion for the messaging that parking revenue supports other campus development initiatives) and one that can speak from an operational perspective about the programmatic benefits (i.e., investments in security, technology) and “on the ground impact” that will result from this change. While implementation of the new Five-Year Plan will be a team effort, it is most effective when one person feels that they have ownership over moving an initiative of this importance forward.



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- Leverage Campus-wide Communications and Public Relations Talent:
  - One of the most consistent themes heard throughout stakeholder conversations was that communication was a challenge campus-wide, regardless of the department, issue and/or messenger. During the Executive Sponsor presentations, Joel Curran (Vice Chancellor for Communications and Public Affairs) offered to work with and support Transportation & Parking staff as they moved forward with developing a communication strategy to support implementation of the Five-Year Plan. It is strongly recommended that staff have this conversation early to leverage any university resources – both in terms of talent and treasure – can be brought to bear.
- Update and Leverage the UNC Transportation & Parking Website & Social Media Sites:
  - UNC Transportation & Parking has done an excellent job of keeping their website and social media sites up to date with fresh, current information. It is recommended that staff transition the content from the new Five-Year Plan website ([www.uncfiveyearplan.com](http://www.uncfiveyearplan.com)) to the existing university site and develop a “button” on the site’s homepage that directs users to information about the Five-Year Plan’s implementation. In addition to existing social media sites, Transportation & Parking should secure their own YouTube channel as the “home base” for future instructional and promotional videos.
- Plan & Conduct a Targeted Five-Year Plan “Roadshow”:
  - This can be a very time-consuming endeavor; however it is also very effective because it “closes the loop” with stakeholders that participated in the new Five-Year Plan outreach process and actively engages new stakeholders in the conversation. In addition, it keeps engagement and momentum for the new Plan recommendations which are not being implemented in the first year.
  - Create an updated list of campus stakeholders (using ACT as the foundation) that are likely to feel the most impact from the new Five-Year Plan’s implementation and ask to present at a regularly scheduled meeting and/or give a special presentation to interested staff over coffee or lunch.
  - It is recommended that a private “pre-conversation” be held with the host department / organizational leadership about what their key issues are, what new programs might be most impactful for their staff, and how to frame the presentation so that it might be received in the most constructive way possible.
  - Tailor a version of this presentation to be given during orientation and/or used in talking points at tabling events (both Transportation & Parking sponsored and university-sponsored)

### Near- to Mid-Term (2018)

- Identify, Train and Empower Peer Champions (Implementation Steering Committee)
  - An important element of campus outreach and education that was identified at the beginning of the new Five-Year Plan process was how to best keep an ever-evolving campus community informed about Plan recommendations. This is especially true for recommendations not being implemented until several years after the large stakeholder push that accompanied the Five-Year Plan effort. As such, it is recommended that the ACT group be asked to identify ongoing departmental / organizational “champions” that would participate in an initial Implementation Steering Committee for a one-year term. This group would meet no more than quarterly and would serve as “two-way” communication champions: 1) as the advocate for their respective department / organization / student group and 2) as an informed, actively participating member for the Implementation Steering Committee. This group would serve to advise and support Transportation & Parking staff as they move through implementation of the Plan and at the end of their term could either choose to stay on for another year or designate/nominate a new representative. It is also vitally important that both undergraduate and graduate students actively participate in this committee.
- Play an Active Role in “Telling Your Story”
  - Increasingly, parking and transportation programs are turning to short videos to “tell the story” about their programs, policies and technology. While video can be an expensive endeavor, it doesn’t have to be. Programs have gotten creative and used local theatre talent, visible community members (i.e., athletes, actors, well-loved faculty or staff) to demonstrate transportation and parking system benefits and/or share information about important safety initiatives.
  - UNC Transportation & Parking should consider developing a short video (or video series) highlighting some the program’s benefits, community investments and/or to provide instructional information on how to utilize the new PARCS technology and/or highlighting new programmatic investments. Videos can be hosted and shared using YouTube.





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- Invest in Creating an Annual Communications Strategy
  - Strategic communication, public and media relations are most effective when done within the context of a larger annual business planning process. Planning for investment in these types of activities is usually done concurrently with other annual planning for the organization. This allows the organization to consider and plan for important initiatives, campaigns, programmatic changes for which the organization will need to have a coordinated and complementary communication strategy. This type of pre-planning also includes creating a specific annual budget for communication, marketing and advertising investment as well as investment in staff training / professional development.

### Long-Term (2019)

- Plan and Execute an Extensive Educational and Outreach Campaign to Prepare for Implementation of Weeknight Parking
  - Develop a specific strategic communications plan specifically for Weeknight Parking and start at least nine months before implementation is set to occur. Active communication should begin no less than 90 days before implementation. Leverage university public relations / communications resources, where possible, and make sure that an administration representative is involved in communication planning from the start.
  - Engage the Implementation Committee early as they will play a key role in keeping their constituencies informed (a move to monthly meetings during this time is recommended).
  - Engage the campus media early and proactively so that Transportation & Parking can set the tone and drive the messaging instead of being reactive.
  - Create a detailed FAQ sheet that is available on the Transportation & Parking website.
  - Proactively reach out to the loudest critics and give them the opportunity to share their concerns early; there is always the possibility that new common ground can be reached.
  - Make the needed financial, staff and time investment in seeing this communications campaign and implementation through successfully. Be cautious of taking on other big initiatives at this time as this effort is likely to be an “all hands on deck” situation.

### Longer-Term (2020 and Beyond)

- Define and Commit Ongoing Resources to Support Communications Efforts – In-Kind (Staffing) and Financial (Resources)
  - Longer-term, it is important to staff, fund and support ongoing communications and campus outreach efforts at the level that matches the important role that it can play in supporting every other aspect of Transportation & Parking’s business. While these types of efforts can be seen as “nice to haves”, they really should have a more prominent place staff planning because when they are done poorly, they can impact everything else the organization is trying to accomplish in a significant way. Carving out resources to fund communications, marketing and campus education efforts is a well-spent investment and can be supplemented through talented student intern support.



## 8. CONCLUSION

The University's Transportation & Parking Five-Year Plan was a process that took place over the course of 15 months and engaged numerous stakeholders from across the campus and community. The Plan placed special emphasis on campus community outreach and participation, system enhancements to improve service delivery, developing a sustainable financial model for the Five-Year horizon and beyond, and the efficiency of the Transportation & Parking System. The Plan was designed to:

- Integrate parking management strategies into campus and community transportation and mobility planning efforts;
- Provide additional services and benefits to the users within the community;
- Ensure that policies, programs, and infrastructure are coordinated and supportive of the larger campus Master Plan's goals.

The Five-Year Plan was a phased approach which included the following elements:

- Stakeholder Outreach: Provided in-person and online opportunities for campus stakeholders to share their experiences, perceptions, ideas, and concerns related to accessing campus.
- System Evaluation: High-level evaluation of the UNC Transportation & Parking system compared against a set of 20 defining characteristics. The overarching goal was to identify where the System was performing well, areas where the System can improve and specific goals/steps required for that improvement.
- Five-Year Plan Financial Model: The financial model assessed the current revenues vs. expenses for the system, considered additional System Enhancements to improve the system, and provided recommendations on how to fund the System's obligations for the next five years.
- Implementation Plan: Provided communication and strategy recommendations to help guide Transportation & Parking staff as they work to keep the campus community informed and engaged throughout implementation.

Overall, the Transportation & Parking System is performing very well and the additional System Enhancements identified in the Plan will further improve the overall experience provided to customers. The Five-Year Plan incorporates a financial model that will meet the identified obligations over the period, while providing a more equitable balance of the costs for the System to all of its users. Moving forward, it will be critical that proper communications be implemented, particularly with the implementation of the Weeknight Parking program, so that users are informed and aware of the changes to the system. The Plan's success will be dependent upon the sustained outreach and communication efforts to the campus and community so that users continue to feel heard and that their feedback is being incorporated to the System's policies and programmatic decisions.



## **9. APPENDICES**

A – Revenue and Expense Detailed Summary Sheets

B – System Evaluation Report

**UNC DEPARTMENT OF PUBLIC SAFETY  
PARKING REVENUE AND EXPENSES  
Five-Year Plan, FY17/18 - FY21/22**

<b>STATIC &amp; PLAN SUMMARY</b>	Projected <u>FY16/17</u>	Projected <u>FY17/18</u>	Projected <u>FY18/19</u>	Projected <u>FY19/20</u>	Projected <u>FY20/21</u>	Projected <u>FY21/22</u>	Cumulative <u>Five Years</u>
<b>Revenue</b>							
Permits-net	\$ 13,700,000.00	\$ 13,734,250.00	\$ 13,768,585.63	\$ 14,439,958.27	\$ 14,529,818.91	\$ 14,616,973.63	\$ 71,089,586.43
Patient/Visitor Parking	\$ 5,100,000.00	\$ 5,112,750.00	\$ 5,125,531.88	\$ 5,327,759.23	\$ 5,341,078.63	\$ 5,814,431.33	\$ 26,721,551.07
Events	\$ 1,100,000.00	\$ 1,102,750.00	\$ 1,105,506.88	\$ 1,108,270.64	\$ 1,111,041.32	\$ 1,113,818.92	\$ 5,541,387.76
Departmental Transp Fee	\$ 4,900,000.00	\$ 4,924,500.00	\$ 4,949,122.50	\$ 4,973,868.11	\$ 4,998,737.45	\$ 5,023,731.14	\$ 24,869,959.21
Student Transp Fee	\$ 4,227,918.00	\$ 4,399,304.00	\$ 4,547,173.00	\$ 4,569,908.87	\$ 4,592,758.41	\$ 4,615,722.20	\$ 22,724,866.48
Student Transp Fee-P2P	\$ 804,696.00	\$ 808,719.48	\$ 812,763.08	\$ 816,826.89	\$ 820,911.03	\$ 825,015.58	\$ 4,084,236.06
Student Transit-Bus/Van Repl	\$ 125,054.00	\$ 125,679.27	\$ 126,307.67	\$ 126,939.20	\$ 127,573.90	\$ 128,211.77	\$ 634,711.81
Student Transp Fee-Safe Ride	\$ 106,568.00	\$ 107,100.84	\$ 107,636.34	\$ 108,174.53	\$ 108,715.40	\$ 109,258.98	\$ 540,886.08
Debt Supplement	\$ 560,282.00	\$ 560,282.00	\$ 560,282.00	\$ 560,282.00	\$ 560,282.00	\$ 560,282.00	\$ 2,801,410.00
Citations-net	\$ 75,000.00	\$ 75,187.50	\$ 75,563.44	\$ 75,941.25	\$ 76,320.96	\$ 76,702.57	\$ 379,715.72
P2P State Funding	\$ 187,457.00	\$ 187,457.00	\$ 187,457.00	\$ 187,457.00	\$ 187,457.00	\$ 187,457.00	\$ 937,285.00
All Other Revenue	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 1,250,000.00
<b>Total Revenue</b>	<b>\$ 31,136,975.00</b>	<b>\$ 31,387,980.09</b>	<b>\$ 31,615,929.40</b>	<b>\$ 32,545,386.00</b>	<b>\$ 32,704,695.01</b>	<b>\$ 33,321,605.12</b>	<b>\$ 161,575,595.61</b>
<b>Expense</b>							
Salaries/Wages	\$ 5,362,639.00	\$ 5,469,891.78	\$ 5,579,289.62	\$ 5,690,875.41	\$ 5,804,692.92	\$ 5,920,786.77	\$ 28,465,536.49
Temporary/Student Wages	\$ 600,000.00	\$ 600,000.00	\$ 600,000.00	\$ 600,000.00	\$ 600,000.00	\$ 600,000.00	\$ 3,000,000.00
Fringes (incl Transit/Core Data)	\$ 1,993,748.00	\$ 2,073,497.92	\$ 2,156,437.84	\$ 2,242,695.35	\$ 2,332,403.16	\$ 2,425,699.29	\$ 11,230,733.56
Supplies	\$ 600,000.00	\$ 606,000.00	\$ 612,060.00	\$ 618,180.60	\$ 624,362.41	\$ 630,606.03	\$ 3,091,209.04
Utilities	\$ 700,000.00	\$ 721,000.00	\$ 742,630.00	\$ 737,908.90	\$ 728,856.17	\$ 752,491.85	\$ 3,682,886.92
Repair/Maintenance	\$ 1,000,000.00	\$ 1,020,000.00	\$ 1,040,400.00	\$ 1,036,208.00	\$ 1,027,432.16	\$ 1,049,080.80	\$ 5,173,120.96
Service Agreements	\$ 1,686,070.00	\$ 3,519,597.37	\$ 3,526,626.67	\$ 3,533,826.27	\$ 1,874,531.20	\$ 1,882,076.52	\$ 14,336,658.03
All Other Operating Costs	\$ 1,194,458.00	\$ 1,206,402.58	\$ 1,218,466.61	\$ 1,230,651.27	\$ 1,242,957.78	\$ 1,715,387.36	\$ 6,613,865.60
UNC Admin Charges	\$ 338,652.00	\$ 345,425.04	\$ 352,333.54	\$ 359,380.21	\$ 366,567.82	\$ 373,899.17	\$ 1,797,605.78
Chapel Hill Transit (incl \$767K enc'17)	\$ 7,923,860.00	\$ 8,400,000.00	\$ 8,904,000.00	\$ 9,438,000.00	\$ 10,004,000.00	\$ 10,604,000.00	\$ 47,350,000.00
Regional Transit	\$ 853,945.00	\$ 998,960.31	\$ 1,107,764.49	\$ 1,151,883.71	\$ 1,190,168.90	\$ 1,227,785.34	\$ 5,676,562.75
Debt Expense	\$ 7,516,611.00	\$ 7,516,611.00	\$ 7,516,611.00	\$ 7,516,611.00	\$ 7,516,611.00	\$ 7,516,611.00	\$ 37,583,055.00
Debt Encumbered	\$ -	\$ 233,600.00	\$ 233,600.00	\$ 233,600.00	\$ 233,600.00	\$ 233,600.00	\$ 1,168,000.00
Transfer to Police Department	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 1,250,000.00
Capital Repair	\$ 500,000.00	\$ 500,000.00	\$ 500,000.00	\$ 500,000.00	\$ 500,000.00	\$ 500,000.00	\$ 2,500,000.00
<b>Total Expense</b>	<b>\$ 30,519,983.00</b>	<b>\$ 33,460,986.00</b>	<b>\$ 34,340,219.76</b>	<b>\$ 35,139,820.73</b>	<b>\$ 34,296,183.51</b>	<b>\$ 35,682,024.14</b>	<b>\$ 172,919,234.14</b>
<b>NET (REVENUE - EXPENSE)</b>	<b>\$ 616,992.00</b>	<b>\$ (2,073,005.91)</b>	<b>\$ (2,724,290.36)</b>	<b>\$ (2,594,434.73)</b>	<b>\$ (1,591,488.51)</b>	<b>\$ (2,360,419.02)</b>	<b>\$ (11,343,638.53)</b>
<b>Recommended Funding Strategy</b>							
PARCS (Transfer from Reserves)		\$ 1,666,666.67	\$ 1,666,666.67	\$ 1,666,666.67	\$ -	\$ -	\$ 5,000,000.00
Bike Share (Transfer from Reserves)		\$ 150,000.00	\$ 140,000.00	\$ 130,000.00	\$ 120,000.00	\$ 110,000.00	\$ 650,000.00
DTF (Transfer from Reserves)		\$ (225,019.84)	\$ 56,759.74	\$ 321,073.74	\$ 598,346.99	\$ 892,161.53	\$ 1,643,322.17
STF (Transfer from Reserves)		\$ (499,823.84)	\$ (341,290.76)	\$ (74,967.01)	\$ 204,326.04	\$ 500,170.47	\$ (211,585.10)
STF - No increase	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Parking Permit Increase (1-1-1-0-0)	\$ -	\$ 137,000.00	\$ 275,712.50	\$ 416,155.48	\$ 416,155.48	\$ 416,155.48	\$ 1,661,178.94
North Campus = \$1.75	\$ -	\$ 183,333.33	\$ 183,333.33	\$ 183,333.33	\$ 183,333.33	\$ 183,333.33	\$ 916,666.67
Night Parking - Yes	\$ -	\$ -	\$ -	\$ 636,951.18	\$ 692,304.30	\$ 744,865.24	\$ 2,074,120.72
<b>Revised Total Revenue</b>	<b>\$ 31,136,975.00</b>	<b>\$ 32,800,136.40</b>	<b>\$ 33,597,110.89</b>	<b>\$ 35,824,599.39</b>	<b>\$ 34,919,161.15</b>	<b>\$ 36,168,291.17</b>	<b>\$ 173,309,299.00</b>
<b>Total Expense</b>	<b>\$ 30,519,983.00</b>	<b>\$ 33,460,986.00</b>	<b>\$ 34,340,219.76</b>	<b>\$ 35,139,820.73</b>	<b>\$ 34,296,183.51</b>	<b>\$ 35,682,024.14</b>	<b>\$ 172,919,234.14</b>
<b>FINAL NET (Revised Revenue - Expense)</b>	<b>\$ 616,992.00</b>	<b>\$ (660,849.60)</b>	<b>\$ (743,108.87)</b>	<b>\$ 684,778.66</b>	<b>\$ 622,977.64</b>	<b>\$ 486,267.03</b>	<b>\$ 390,064.87</b>

Static Revenue and Expenses

	<i>Projected FY16/17</i>	<i>Projected FY17/18</i>	<i>Projected FY18/19</i>	<i>Projected FY19/20</i>	<i>Projected FY20/21</i>	<i>Projected FY21/22</i>	<i>Cumulative Five Years</i>
<b>Revenue</b>							
Permits-net	\$ 13,700,000.00	\$ 13,734,250.00	\$ 13,768,585.63	\$ 13,803,007.09	\$ 13,837,514.61	\$ 13,872,108.39	\$ 69,015,465.71
Patient/Visitor Parking	\$ 5,100,000.00	\$ 5,112,750.00	\$ 5,125,531.88	\$ 5,138,345.70	\$ 5,151,191.57	\$ 5,164,069.55	\$ 25,691,888.70
Events	\$ 1,100,000.00	\$ 1,102,750.00	\$ 1,105,506.88	\$ 1,108,270.64	\$ 1,111,041.32	\$ 1,113,818.92	\$ 5,541,387.76
Departmental Transp Fee	\$ 4,900,000.00	\$ 4,924,500.00	\$ 4,949,122.50	\$ 4,973,868.11	\$ 4,998,737.45	\$ 5,023,731.14	\$ 24,869,959.21
Student Transp Fee	\$ 4,227,918.00	\$ 4,399,304.00	\$ 4,547,173.00	\$ 4,569,908.87	\$ 4,592,758.41	\$ 4,615,722.20	\$ 22,724,866.48
Student Transp Fee-P2P	\$ 804,696.00	\$ 808,719.48	\$ 812,763.08	\$ 816,826.89	\$ 820,911.03	\$ 825,015.58	\$ 4,084,236.06
Student Transit-Bus/Van Repl	\$ 125,054.00	\$ 125,679.27	\$ 126,307.67	\$ 126,939.20	\$ 127,573.90	\$ 128,211.77	\$ 634,711.81
Student Transp Fee-Safe Ride	\$ 106,568.00	\$ 107,100.84	\$ 107,636.34	\$ 108,174.53	\$ 108,715.40	\$ 109,258.98	\$ 540,886.08
Debt Supplement	\$ 560,282.00	\$ 560,282.00	\$ 560,282.00	\$ 560,282.00	\$ 560,282.00	\$ 560,282.00	\$ 2,801,410.00
Citations-net	\$ 75,000.00	\$ 75,187.50	\$ 75,563.44	\$ 75,941.25	\$ 76,320.96	\$ 76,702.57	\$ 379,715.72
P2P State Funding	\$ 187,457.00	\$ 187,457.00	\$ 187,457.00	\$ 187,457.00	\$ 187,457.00	\$ 187,457.00	\$ 937,285.00
All Other Revenue	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 1,250,000.00
<b>Total Revenue</b>	<b>\$ 31,136,975.00</b>	<b>\$ 31,387,980.09</b>	<b>\$ 31,615,929.40</b>	<b>\$ 31,719,021.29</b>	<b>\$ 31,822,503.64</b>	<b>\$ 31,926,378.10</b>	<b>\$ 158,471,812.53</b>
<b>Expense</b>							
Salaries/Wages	\$ 5,362,639.00	\$ 5,469,891.78	\$ 5,579,289.62	\$ 5,690,875.41	\$ 5,804,692.92	\$ 5,920,786.77	\$ 28,465,536.49
Temporary/Student Wages	\$ 600,000.00	\$ 600,000.00	\$ 600,000.00	\$ 600,000.00	\$ 600,000.00	\$ 600,000.00	\$ 3,000,000.00
Fringes (incl Transit/Core Data)	\$ 1,993,748.00	\$ 2,073,497.92	\$ 2,156,437.84	\$ 2,242,695.35	\$ 2,332,403.16	\$ 2,425,699.29	\$ 11,230,733.56
Supplies	\$ 600,000.00	\$ 606,000.00	\$ 612,060.00	\$ 618,180.60	\$ 624,362.41	\$ 630,606.03	\$ 3,091,209.04
Utilities	\$ 700,000.00	\$ 721,000.00	\$ 742,630.00	\$ 764,908.90	\$ 787,856.17	\$ 811,491.85	\$ 3,827,886.92
Repair/Maintenance	\$ 1,000,000.00	\$ 1,020,000.00	\$ 1,040,400.00	\$ 1,061,208.00	\$ 1,082,432.16	\$ 1,104,080.80	\$ 5,308,120.96
Service Agreements	\$ 1,686,070.00	\$ 1,702,930.70	\$ 1,719,960.01	\$ 1,737,159.61	\$ 1,754,531.20	\$ 1,772,076.52	\$ 8,686,658.03
All Other Operating Costs	\$ 1,194,458.00	\$ 1,206,402.58	\$ 1,218,466.61	\$ 1,230,651.27	\$ 1,242,957.78	\$ 1,255,387.36	\$ 6,153,865.60
UNC Admin Charges	\$ 338,652.00	\$ 345,425.04	\$ 352,333.54	\$ 359,380.21	\$ 366,567.82	\$ 373,899.17	\$ 1,797,605.78
Chapel Hill Transit (incl \$767K enc'17)	\$ 7,923,860.00	\$ 7,923,860.00	\$ 7,923,860.00	\$ 7,923,860.00	\$ 7,923,860.00	\$ 7,923,860.00	\$ 39,619,300.00
Regional Transit	\$ 853,945.00	\$ 923,945.00	\$ 923,945.00	\$ 923,945.00	\$ 923,945.00	\$ 923,945.00	\$ 4,619,725.00
Debt Expense	\$ 7,516,611.00	\$ 7,516,611.00	\$ 7,516,611.00	\$ 7,516,611.00	\$ 7,516,611.00	\$ 7,516,611.00	\$ 37,583,055.00
Debt Encumbered	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transfer to Police Department	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 250,000.00	\$ 1,250,000.00
All Other Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Repair	\$ 500,000.00	\$ 500,000.00	\$ 500,000.00	\$ 500,000.00	\$ 500,000.00	\$ 500,000.00	\$ 2,500,000.00
<b>Total Expense</b>	<b>\$ 30,519,983.00</b>	<b>\$ 30,859,564.02</b>	<b>\$ 31,135,993.61</b>	<b>\$ 31,419,475.35</b>	<b>\$ 31,710,219.62</b>	<b>\$ 32,008,443.80</b>	<b>\$ 157,133,696.39</b>
<b>NET (Revenue - Expense)</b>	<b>\$ 616,992.00</b>	<b>\$ 528,416.07</b>	<b>\$ 479,935.79</b>	<b>\$ 299,545.94</b>	<b>\$ 112,284.03</b>	<b>\$ (82,065.70)</b>	<b>\$ 1,338,116.13</b>

**Assumptions**

Student Fee increases based solely on student population increase per 10 year campus enrollment plan from OIRA.

Percentage increases in visitor/dept transit/citations based solely on estimated population increases.

	<i>Projected FY16/17</i>	<i>Projected FY17/18</i>	<i>Projected FY18/19</i>	<i>Projected FY19/20</i>	<i>Projected FY20/21</i>	<i>Projected FY21/22</i>	<i>Cumulative Five Years</i>
<b>SYSTEM ENHANCEMENTS (NET)</b>							
LED Lighting-Rams Head & Jackson	\$ -	\$ -	\$ -	\$ 52,000.00	\$ 52,000.00	\$ 52,000.00	\$ 156,000.00
LED Lighting-Cobb & Bus. School	\$ -	\$ -	\$ -	\$ -	\$ 62,000.00	\$ 62,000.00	\$ 124,000.00
Bike Share	\$ -	\$ (150,000.00)	\$ (140,000.00)	\$ (130,000.00)	\$ (120,000.00)	\$ (110,000.00)	\$ (650,000.00)
PARCS	\$ -	\$ (1,666,666.67)	\$ (1,666,666.67)	\$ (1,477,253.14)	\$ 189,887.06	\$ 190,361.78	\$ (4,430,337.63)
<b>Total Financial Efficiencies</b>	<b>\$ -</b>	<b>\$ (1,816,666.67)</b>	<b>\$ (1,806,666.67)</b>	<b>\$ (1,555,253.14)</b>	<b>\$ 183,887.06</b>	<b>\$ 194,361.78</b>	<b>\$ (4,800,337.63)</b>

	<i>Projected FY16/17</i>	<i>Projected FY17/18</i>	<i>Projected FY18/19</i>	<i>Projected FY19/20</i>	<i>Projected FY20/21</i>	<i>Projected FY21/22</i>	<i>Cumulative Five Years</i>
<b>Anticipated Revenue</b>							
LED Lighting-Rams Head & Jackson	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LED Lighting-Cobb & Bus School	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bike Share	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PARCS	\$ -	\$ -	\$ -	\$ 189,414	\$ 189,887	\$ 190,362	\$ 569,662.37
<b>Total Revenue Gain</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 189,413.53</b>	<b>\$ 189,887.06</b>	<b>\$ 190,361.78</b>	<b>\$ 569,662.37</b>

	<i>Projected FY16/17</i>	<i>Projected FY17/18</i>	<i>Projected FY18/19</i>	<i>Projected FY19/20</i>	<i>Projected FY20/21</i>	<i>Projected FY21/22</i>	<i>Cumulative Five Years</i>
<b>Anticipated Expense</b>							
LED Lighting-Rams Head & Cobb (Utilities)	\$ -	\$ -	\$ -	\$ (27,000)	\$ (27,000)	\$ (27,000)	\$ (81,000.00)
LED Lighting-Rams Head & Cobb (Maint)	\$ -	\$ -	\$ -	\$ (25,000)	\$ (25,000)	\$ (25,000)	\$ (75,000.00)
LED Lighting-Jackson & Bus School (Utilities)	\$ -	\$ -	\$ -	\$ -	\$ (32,000)	\$ (32,000)	\$ (64,000.00)
LED Lighting-Jackson & Bus School (Maint)	\$ -	\$ -	\$ -	\$ -	\$ (30,000)	\$ (30,000)	\$ (60,000.00)
Bike Share	\$ -	\$ 150,000	\$ 140,000	\$ 130,000	\$ 120,000	\$ 110,000	\$ 650,000.00
PARCS	\$ -	\$ 1,666,667	\$ 1,666,667	\$ 1,666,667	\$ -	\$ -	\$ 5,000,000.00
<b>Total Expenses</b>	<b>\$ -</b>	<b>\$ 1,816,666.67</b>	<b>\$ 1,806,666.67</b>	<b>\$ 1,744,666.67</b>	<b>\$ 6,000.00</b>	<b>\$ (4,000.00)</b>	<b>\$ 5,370,000.00</b>

Transportation Funding

	<i>Projected FY16/17</i>	<i>Projected FY17/18</i>	<i>Projected FY18/19</i>	<i>Projected FY19/20</i>	<i>Projected FY20/21</i>	<i>Projected FY21/22</i>	<i>Cumulative Five Years</i>
Maintain Parking Subsidy at \$800K/yr							
Dept Transit Expense @ 50%	\$4,213,346	\$4,699,480	\$5,005,882	\$5,294,942	\$5,597,084	\$5,915,893	\$ 26,513,281.37
Stud Transit Expense @ 41.5-43.2%	\$3,564,459	\$3,899,480	\$4,205,882	\$4,494,942	\$4,797,084	\$5,115,893	\$ 22,513,281.37
Parking Subsidy- \$800K/yr @8.5-6.8%	\$1,000,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$ 4,000,000.00
<b>Total Transit</b>	<b>\$8,777,805</b>	<b>\$9,398,960</b>	<b>\$10,011,764</b>	<b>\$10,589,884</b>	<b>\$11,194,169</b>	<b>\$11,831,785</b>	<b>\$ 53,026,562.75</b>
Dept Transit Fee-Projected	\$ 4,900,000.00	\$ 4,924,500.00	\$ 4,949,122.50	\$ 4,973,868.11	\$ 4,998,737.45	\$ 5,023,731.14	\$ 24,869,959.21
DTF to FB over/(under)	\$ 686,653.60	\$ 225,019.84	\$ (56,759.74)	\$ (321,073.74)	\$ (598,346.99)	\$ (892,161.53)	\$ (1,643,322.17)
Stud Transit Fee-Projected	\$ 4,227,918.00	\$ 4,399,304.00	\$ 4,547,173.00	\$ 4,569,908.87	\$ 4,592,758.41	\$ 4,615,722.20	\$ 22,724,866.48
STF to FB over/(under)	\$ 663,459.40	\$ 499,823.84	\$ 341,290.76	\$ 74,967.01	\$ (204,326.04)	\$ (500,170.47)	\$ 211,585.10
%-Dept Transit	48.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
%-Stud Transit (CHT only)	40.6%	41.5%	42.0%	42.4%	42.9%	43.2%	42.5%
%-Parking Subsidy	11.4%	8.5%	8.0%	7.6%	7.1%	6.8%	7.5%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
FB End							
Effect DTF	\$ 1,195,339.43	No Increase Needed		4.5%			
Effect STF	\$ 1,283,900.50	No Increase Needed		5.7%			



THE UNIVERSITY  
*of* NORTH CAROLINA  
*at* CHAPEL HILL

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
**SYSTEM EVALUATION**

TASK MEMO



**FINAL**

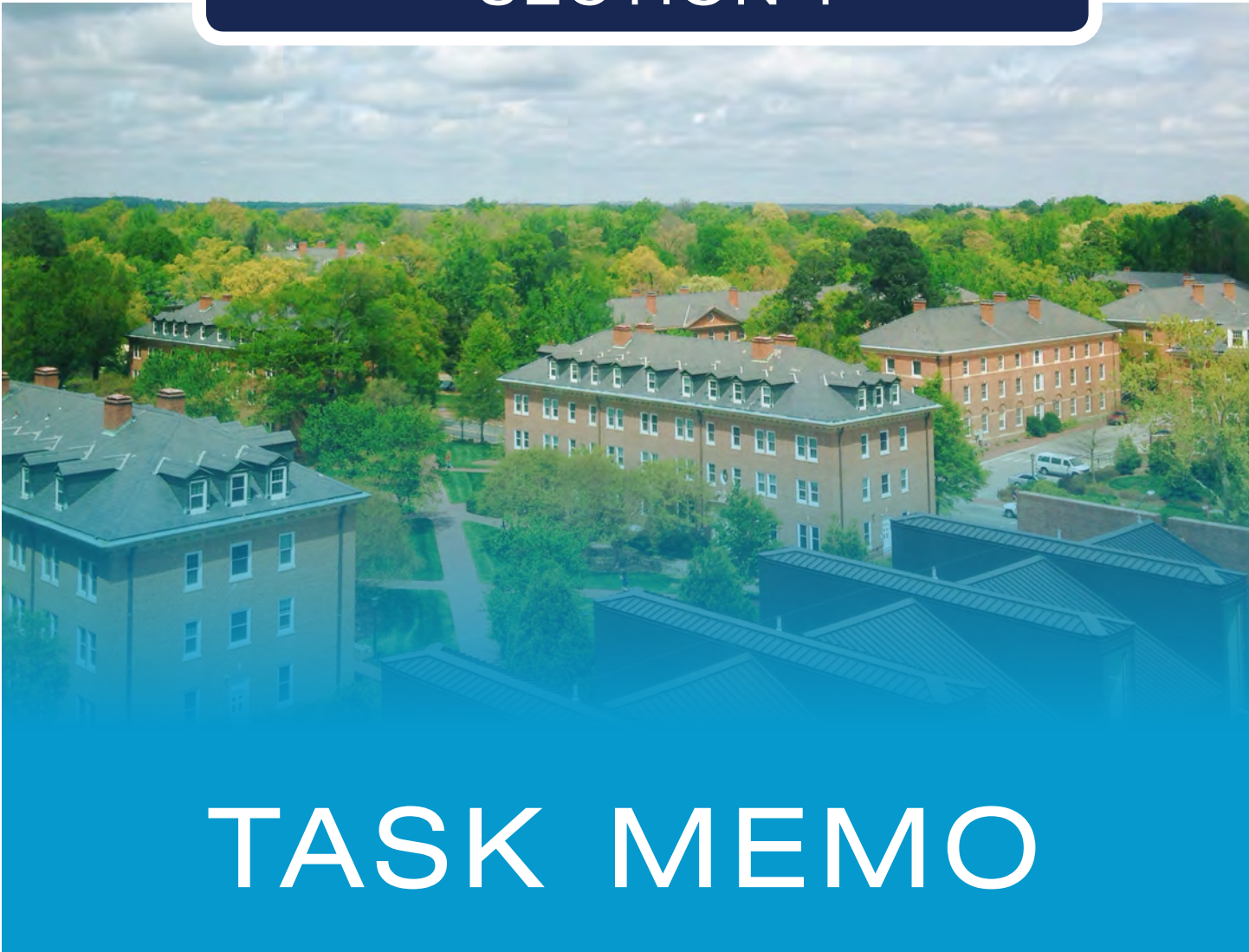
SEPTEMBER 15, 2016  
PREPARED BY

**Kimley»Horn**





# SECTION 1



# TASK MEMO



# SYSTEM EVALUATION

## TASK MEMO



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# SYSTEM EVALUATION

## TASK MEMO



### An Introduction to the “20 Characteristics”

A fresh element of the new Five Year Plan (2017-2022) is a high-level “system evaluation” of the University of North Carolina (UNC) Chapel Hill Transportation & Parking operation. Based on Kimley-Horn’s extensive experience evaluating university parking systems of various sizes and complexity across the country and abroad, Kimley-Horn has identified a set of “20 Characteristics”, that when combined into an integrated approach to parking and access management, can provide the basis for a sound and well-managed operation that is positioned to best serve the campus today and into the future.

**The 20 Characteristics include:**



1. Clear Vision and Mission



2. Parking Philosophy



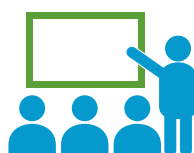
3. Strong Planning



4. Campus Community Engagement



5. Organization



6. Staff Development



7. Safety, Security, and Risk Management



8. Effective Communications



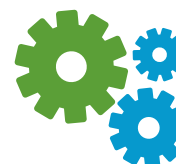
9. Effective and Accountable Revenue Control



10. Financial Planning



11. Creative, Flexible, and Accountable Parking Management



12. Operational Efficiency



13. Comprehensive Facilities Maintenance Programs



14. Effective Use of Technology



15. Parking System Marketing and Promotion



16. Positive Customer Service Programs



17. Special Events Parking Programs



18. Effective Enforcement



19. Parking and Transportation Demand Management



20. Awareness of Competitive Environment



# SYSTEM EVALUATION

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A transportation and parking system that has all twenty of these characteristics is well on its way to being in a class apart from the majority of university programs. The ultimate goal of the System Evaluation process is to identify an easy-to-understand set of criteria that, when used to guide program development and management, can support Transportation & Parking's continued investment to be an active contributor to improving the overall experience of traveling to, and around, the UNC Chapel Hill campus.

## System Evaluation Process

The System Evaluation was conducted on site at UNC Chapel Hill, July 12—13, 2016. The evaluation was conducted by Kimley-Horn and Associates team member, Vanessa Solesbee, with support from Matt Sumpter. A variety of Transportation & Parking staff participated in the evaluation process over the two-day period, including the following department leadership:

- » **Cheryl Stout**, Director, UNC Chapel Hill Transportation & Parking
- » **Than Austin**, Associate Director, UNC Chapel Hill Transportation & Parking
- » **Wil Steen**, Finance Director, UNC Chapel Hill Transportation & Parking
- » **Mya Nguyen**, Executive Assistant, UNC Chapel Hill Transportation & Parking

Representatives from Kimley-Horn also met with the Transportation & Parking management team and performed a brief field assessment and visual review of the Point-to-Point operation, maintenance and meter repair workshop and Craige Deck parking facility. A description of the field assessment can be found in Section II of this memo (pg. 46).

Before beginning the evaluation, Transportation & Parking leadership were asked to share their goals for the process, including what they hoped to learn and what the value they thought the addition of this exercise would add to the Five Year Plan.





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Key goals included:

- » High-level operational overview that is easily shared with and understood by campus stakeholders
- » Learn more about industry innovation, best practice and strategies for improvement
- » Identify a “road map” for future investment in organizational and operational improvement, staffing, technology and programs.

While goals for this process were varied, they all centered around one main theme: to help Transportation & Parking “tell the story” about the myriad ways in which their staff, programs and services are working to provide a comprehensive, fiscally-responsible and customer-focused approach to balancing the campus access needs of students, faculty, staff, visitors, alumni and key partners like UNC Hospitals.

The following memo details the results of the System Evaluation process, including observations about current program status. Each category is organized as follows:

- » **Characteristic Overview:** A brief description of what is being evaluated within the criteria, including the importance of that characteristic in the creation of parking and transportation program excellence.
- » **Discussion Questions:** Transportation & Parking leadership team members who participated in the process were asked a series of questions about their operation; some were “yes/no” and others were more open-ended.
- » **Next Steps:** A list of next steps / key concepts to for Transportation & Parking staff to keep in mind.
- » **Assessment Rating:** Using a scale of 1 through 10, where 1 = “poor” and 10 = “excellent”, each of the Transportation & Parking leadership team members who participated in the system evaluation were asked to rank how they felt the program would score today. The consultant team also separately ranked the program based on both information learned during the evaluation process, and previous knowledge of the UNC Chapel Hill program.

The rating scale is pictured below:

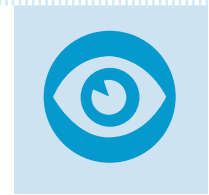


**Important Note:** UNC Transportation & Parking is governed by Chapter 116, Article 1, Part 6 of the General Statutes of North Carolina. This ordinance defines the general operations and policies for traffic and parking on the campus of The University of North Carolina at Chapel Hill. The provisions set forth in this ordinance are designed to ensure the safety and protection of all users of the system.



## 1. Clear Vision and Mission

### Characteristic Overview



Truly effective transportation and parking systems have a clear vision and well-defined mission. The development of a vision and mission statements should have one overriding goal: to see that the transportation and parking system's purpose and direction are tied to and supportive of the campus' larger strategic master (vision) and development plan(s). The development or periodic reassessment of the system vision/mission statements should be undertaken as an open and inclusive process involving a wide range of stakeholders.

There are a variety of ways that effective transportation and parking management can support the health, vitality and sustainability of a university campus. Having a professionally managed parking and transportation program that presents clean, safe, attractive and well-maintained facilities is perhaps the most visible dimension. Other attributes include providing an adequate supply of parking overall and the appropriate allocation and management of those resources to best support the various uses of a university campus that depend on these resources for their success.

The transportation and parking system administrator(s) should play a key role in providing educational support to campus community leaders about the importance of parking and the role(s) parking can play (and cannot play) in meeting campus objectives. Staying abreast of the latest technological developments related to parking systems can broaden the options available to improve parking system management effectiveness and efficiency. The use of new technology to support the mission and vision can have a profound impact on the perception of the parking system and how it contributes to achieving the goals of the campus it serves.

In effective systems, the financial responsibilities of the transportation and parking system are well-defined and understood. This is a critical component of the vision/mission, as it directly impacts the perception of whether the parking system is meeting its financial obligations and expectations. Part of this important discussion relates to whether the parking system is expected to be subsidized by the university's general fund whether parking is expected to cover its own operating and maintenance costs, but not debt service. Or, is parking expected to cover all costs and generate additional revenue.

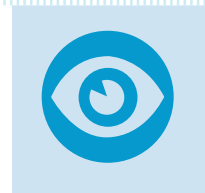
### Discussion Points

- » **Does the Transportation & Parking System have a clear vision and well-defined mission statement?**
  - » **Vision Statement:** There is no specific vision statement, however with recent strategic additions to the staff team, specifically the Executive Assistant position, the Associate Director is leading an effort to review the staffing model, including reporting structure and internal organizational processes. The creation of a departmental vision will be an important part of this organizational "re-focusing" and will allow the Transportation & Parking management team to set a clear and shared vision for the next five years.
  - » **Mission Statement:** Transportation & Parking is an essential part of UNC and is responsible for coordinating all traffic, parking and transportation around UNC's campus. The department strives to provide a high level of service to students, employees and visitors at the University and Hospitals.
  - » A **Vision Statement** should be aspirational and speak to the organization's ultimate point of success, while a Mission Statement defines what an organization is, why it exists and its reason for being.
- » **Is Transportation & Parking's mission integrated into and supportive of the campus' larger master planning efforts?**



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- » Transportation & Parking staff are actively involved in the Campus Master Plan process, and a key members of the university planning group are involved with Advisory Committee on Transportation & Parking (ACT).
- » Additionally, the Transportation & Parking Guiding Principles, which were developed as part of the new Five Year Plan process were developed with the campus Master and Development Plans in mind.
- » **Are the System’s financial responsibilities well defined and understood?**
  - » Yes, staff indicated that there was clear documentation of roles and responsibilities related to financial management of the system.
  - » Transportation & Parking is receipt-funded per general statute.
- » **Is the parking System meeting its financial obligations and expectations?**
  - » Yes, the department is currently meeting their obligations but costs are increasing.
  - » During the last Development Plan, Transportation & Parking spent \$100M in Capital investment.
  - » Staff are aware and indicated concern that UNC’s permit and transit fees are high compared to similar peers, and understand that any increases to permit and/or transit fees would be extremely challenging.
  - » Staff indicated that parking assets (garages and lots) are in “good shape and that there is no large deferred maintenance costs expected.
  - » There is currently the capital to support a new 430 space parking structure.
  - » Staff indicated concern about rising cost of Chapel Hill Transit (CHT). Current transit fees are higher than original projection due to higher than expected growth from last five years.
  - » Staff feel like they are starting this Five Year Plan in “a better financial place than the last one”. A goal would be to hold fees flat, if possible.
- » **Does departmental leadership provide educational support to campus leaders about the role(s) Transportation & Parking can (and cannot) play in meeting campus objectives?**
  - » Yes, this is actively done via the ACT and Executive Sponsor advisory groups. ACT met almost monthly during the new Five Year Plan process and members include representatives from a variety of campus departments, schools and partners. See [Appendix A](#) for a full listing of ACT membership.

### Next Steps

- Action Item** Create a new, shared vision as part of Transportation & Parking’s internal organizational assessment process. Include the new vision statement on the Transportation & Parking website, along with the new Guiding Principles that were created as part of the Five Year Plan process (detailed in Characteristic 2).
- Action Item** Ensure that current operational policies and procedures are documented and easily accessible, including amendments and/or revisions.
- Action Item** A current organizational chart is available, preferably on the department’s website, and via its structure, accurately reflects the program’s mission.
- Action Item** A comprehensive organizational structure is in place that clearly defines relationships between functions, process, and staff assignments.



10 Self-Assessment Rating = 7.5



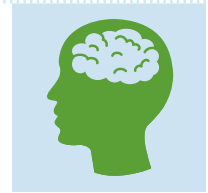
10 Consultant Assessment Rating = 8.5



## 2. Parking Philosophy

### Characteristic Overview

A succinct statement or statements reflecting your philosophical approach to parking can provide valuable tools for communicating to your patrons, stakeholders and staff. Some examples of “parking philosophy” are noted below along with a brief commentary:



#### **1. Parking Isn't About Cars . . . It's About People.**

This statement reflects an understanding that parking is not simply the act of temporarily storing cars, but it is in fact more about addressing “people” needs at the transition from the vehicular to the pedestrian experience. Under this philosophy, issues such as facility cleanliness, safety, lighting, wayfinding and customer service move to the forefront. Functional design elements that directly impact user comfort such as stall widths, turn radii, walking distances, etc. also take on special importance.

#### **2. People Don't Come to Campus to Park.**

This concept reinforces the reality that parking, while an important support function and critical infrastructure element, is not the reason people visit the UNC Chapel Hill campus. Even the most well-run transportation and parking system with well-designed facilities will not “attract” people to come to campus, however, poorly run operations or dysfunctional facilities can definitely be excuses for people not to visit campus at all. The fundamental principle behind this philosophy is three-fold: 1.) The role of parking is to support other campus activities. 2.) Eliminate parking as a “reason not to come campus” and 3.) Recognize what parking is not, i.e., an attraction.

#### **3. Parking Should Be a Positive Experience.**

For years, those in the parking industry promoted the idea that “parking should be a non-event”. This notion has undergone a qualitative evolution to make parking not just a “non-event,” but actually a “positive experience.” In their book “The Experience Economy,” Joseph Pine and James Gilmore address the concept that, especially in America, what customers are actually purchasing is “positive experiences.”

#### **4. Parking Is the First and Last Experience.**

Building on the concept above is an appreciation of the fact that most of our customer's first and last impressions of any venue really begins and ends with their parking experience. You might enjoy a fun tailgating experience followed by an exciting basketball game, but if you have to wait hours to exit the parking lot or almost get run over walking back to your vehicle, this will taint your whole experience.

#### **5. Parking Should be Friendly, Not Free.**

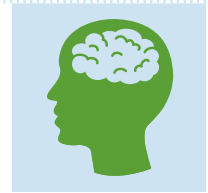
There is no such thing as “free parking”; someone, somewhere is paying for it. One of the ongoing challenges that university's face when it comes to parking is cost. Because of land values, densities and walking distance issues, parking structures are here to stay in the university environment and with them is the need to charge for parking in one form or fashion. Even if you promote “free parking” as a marketing concept, someone is paying for that parking. This philosophy recognizes this reality and focuses instead on providing a friendly, well managed parking experience.





### **6. Parking is a Component of the Larger Transportation System.**

It is surprising how often parking gets divorced in people's minds from being a component of the larger transportation system. Structured parking, because of its cost, is often the reason that development projects "don't pencil". As is well-represented in Transportation & Parking's current structure, by considering parking in the larger context of a broad range of transit and transportation alternatives, demand management strategies (including shared parking policies) can be developed that help reduce the amount of parking required, especially in urban areas where good bus transit, light rail, taxi service and increasingly in-town residential developments can be found. Developing programs that integrate complementary parking and transportation strategies is a hallmark of this philosophy.



### **Discussion Points**

As part of the new Five Year Plan process, a set of "Guiding Principles" was developed. These principles are strategic in nature, responsive to the needs of the community and aligned with the larger campus community's strategic and economic development goals. The Guiding Principles were developed in coordination with the ACT stakeholder group.

These program Guiding Principles will encourage the use of parking and other transportation resources to support and facilitate priority campus development goals and serve prioritized user groups. They will also serve as a foundation for near and long-term decision-making relating to transportation and parking management and development on campus.

Guiding Principles include:

- » **Access:** Provide adequate and safe access for all who need to come to campus.
- » **Sustainability:** Encourage sustainable multimodal transportation options for all users of the system.
- » **Master Plan:** Support the Campus Master Plan by coordinating transportation and parking needs with the land use, open space and programmatic objectives of the physical master plan.
- » **Operations:** Transportation and parking operations will remain solely self-funded and receipt supported.

Additionally, during discussion with staff about Transportation & Parking's "guiding philosophy", staff identified the following important departmental characteristics:

- » Safety
- » Accessibility
- » Careful stewardship of capital assets
- » Flexible and tailored
- » Not "one size fits all"
- » Community-driven resource management
- » Parking is a component of a larger transportation system
- » User-friendly access



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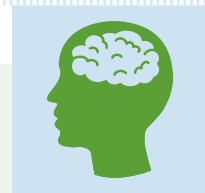


### Next Steps:

**Action Item** Include the Guiding Principles on the Transportation & Parking website.

**Key Idea** The key characteristics of Transportation & Parking’s guiding philosophy are important foundational elements that can be used in the development of future messaging and communication for departmental programs and policies.

**Key Idea** The new Guiding Principles should be incorporated into every aspect of the Transportation & Parking operation, and should serve as a key foundational element in all aspects of the department’s business. Staff of all levels—from management to front line, full time to temporary—should be briefed on the Guiding Principles and organizational philosophy as part of their onboarding process and during regular staff trainings.



10 Self-Assessment Rating = 7.5



10 Consultant Assessment Rating = 9



### 3. Strong Planning

#### Characteristic Overview

One consistent characteristic of well-managed and forward thinking transportation and parking programs is strong planning. The first step in developing a well-managed parking planning function is to have a solid understanding of existing transportation and parking resources. Documenting the basics is fundamental.

One of the key planning tools that parking departments often overlook or don't understand is land-use data. Successful transportation and parking systems develop relationships with campus, city/town or regional planning agencies so that valuable land-use data, information on proposed developments, planning maps, etc. can be obtained and used in crafting transportation and parking planning strategies.



#### Current Assessment

As part of this characteristic, the consultant team walked Transportation & Parking staff through the following line of questioning:

- » Q: Is planning information well-developed and up to date?
- » A: Yes; available in GIS.

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- » Q: Is the parking inventory is complete and up-to-date?
- » A: Yes; available in GIS.

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- » Q: Are parking inventories are sub-divided by type/use of space?
- » A: Yes; available in GIS.

---

- » Q: Is parking utilization, by type of spaces known and trends tracked?
- » A: Yes, space counts performed by lot but not broken down by individual permit/use type (i.e., ADA, service)

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- » Q: Are periodic parking supply-demand studies completed?
- » A: Yes, completed by TIA every two years.

---

- » Q: Are quality parking maps are available?
- » A: Yes; map is currently updated and available via Campusbird.

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- » Q: Is land use data is available and up-to-date?
- » A: Yes, this is part of the Master Plan process.

---

- » Q: Are changes in utilization tracked?
- » A: Yes, via the studies completed by TIA every two years.

---

- » Q: Is planning for the next parking developments “on-the-drawing board”?
- » A: In progress; the map is updated and will be available on Campusbird soon.

---

- » Q: Is parking is represented and participates in other types of community studies, including:
  - » University Master Plans?
  - » University Marketing Studies?
  - » Community Planning Initiatives?
  - » Traffic Studies?
- » A: Yes, Transportation & Parking is actively involved in campus planning efforts.



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- » Q: Are strategically located parking development sites identified?
- » A: Yes, as much as possible.

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- » Q: Are future development sites “land banked”?
- » A: Yes, as much as possible.

---

- » Q: Are potential sites assembled with adequate footprint size to develop an efficient parking structure?
- » A: Yes.

---

- » Q: Are parking lot and structure design guidelines well-defined and developed?
- » A: Yes, this is done through Facilities Planning.



### Next Steps

**Action Item** Here are some basic campus transportation and parking planning tenants that should be considered:

- » Parking inventory is complete and up-to-date (includes both public and private parking).
- » Parking inventories are sub-divided by type and use of space.
- » Parking utilization, by type of spaces is known and trends tracked.
- » Changes in supply are documented.
- » Changes in utilization are tracked and understood.
- » Periodic supply-demand studies are completed.
- » Quality parking maps are available and up-to-date.
- » Is land use data readily available and up-to-date?
- » Is historical parking development well documented?
- » Is planning for the next parking development “on-the-drawing board”?
- » Is Parking represented and participating in other types of campus studies e.g., campus master plans?
- » Have strategically located potential parking development sites been identified?
- » Are future parking development sites “land banked”?
- » Are potential sites assembled to achieve an adequate footprint size to develop efficient parking structures (300-325 sq. ft. per stall)?
- » Have parking lot and structure design guidelines been developed?



10 Self-Assessment Rating = 9.5



10 Consultant Assessment Rating = 9



## 4. Campus Community Engagement



### Characteristic Overview

Parking programs understand that their larger purpose is to support the diverse uses of the universities they serve. Transportation and parking systems should develop close and cooperative working relationships with other departments—especially planning and facilities maintenance, as well as identify a group of representative campus stakeholders to serve as a “sounding board” for new ideas and policies.

This does not mean that the parking system exists simply as a tool to be manipulated by these stakeholders or persuaded to favor one group over another. The parking operation has its own goals and objectives. For example, if the parking system is operating under a mandate to be self-supporting, it may not be able to subsidize parking or a shuttle for a special event, even though a campus partner, like athletics, might desire this. However, acting as partners, a mutually beneficial solution can be devised to meet the overall objectives of both departments whereby costs are shared or alternative funding sources are obtained.

Another significant area of potential partnership is transportation and parking system communication and marketing. Oftentimes, campuses have a department focused on communications and public relations for the campus as a whole. These departments often have specialized expertise and can work collaboratively with parking staff to ensure that messages are crafted in way that makes sense to stakeholders and distributed widely for maximum impact.

As mentioned above, successful transportation and parking operations actively solicit public input from a variety of sources including: promotion of public forums, use of parking task force groups, development of a group of “parking advisors”—people who have demonstrated an interest in parking issues and who are recruited to provide input on an occasional basis. This type of structure is seen well-represented at UNC Chapel Hill via the ACT and Executive Sponsor advisory groups.

### Current Assessment:

- » Q: Does Transportation & Parking have close working relationships with other key departmental / stakeholder groups such as Campus Planning, Facilities / Maintenance, Athletics, Faculty Senate, Student Government etc.?
- » A: Yes, Transportation & Parking demonstrated a close working relationship and frequent interaction with key stakeholders. In addition to the ACT and Executive Sponsor advisory groups, staff conduct monthly meetings with key departmental partners like Facilities Planning and meet with student government quarterly.
- » Q: Does the department co-sponsor or share in larger university marketing and promotional initiatives?
- » A: Yes, and this effort is becoming more organized. Finance and Administration has communications section that can provide technical support to Transportation & Parking.
- » Q: Is there a parking advisory group? Is that group effective? How could this process be improved?
- » A: Yes, ACT and Executive Sponsor; there are also periodic working groups called together, as needed (i.e., Point-to-Point working group).



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### Next Steps:

👉 **Action Item** For ACT, consider using sub-committees to increase ownership on specific topics or issues.

👉 **Action Item** For ACT and Executive Sponsor, consider implementing a mechanism for allowing stakeholders to provide feedback regarding their committee experience / suggested process improvement.

🔗 **Key Idea** The key to success with these types of advisory groups is not only to engage them on committees but to actively listen and document their concerns, act promptly to resolve the issues and then follow-up to make sure their issue has been satisfactorily resolved.

🔗 **Key Idea** A strategy to combat the attrition of student representation on ACT could be to offer a Skype or Google Hangout option for remote meeting access. Consideration could also be given to changing the meeting time and/or location so that students are more likely to participate (i.e., moving it to the early evening; meeting somewhere more convenient for students and/or where students might already be).



10 Self-Assessment Rating = 9



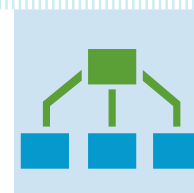
10 Consultant Assessment Rating = 8



## 5. Organizational Effectiveness

### Characteristic Overview

An important component of the evaluation process is to identify the program elements for which the parking system will be responsible. The following graphic provides a list of potential program elements to consider as within the scope of the transportation and system operation:



### Possible Scope of Operations

- » Overall leadership and management
- » Program definition and development
- » Parking system revenue control and accounting
- » Manage parking facilities
- » Contract management
- » Marketing/promotion/information
- » Parking planning and coordination
- » Parking facility development and construction
- » Community outreach and education
- » Equipment and technology specifications
- » Equipment and technology maintenance
- » Parking enforcement
- » On-street parking management
- » Meter collections and maintenance
- » Employee parking
- » ADA compliance
- » Parking facility maintenance programs
- » Develop consolidated financial reporting system
- » Special events parking management
- » Parking resource allocation
- » Rate setting
- » Residential parking permit programs
- » Special program development
- » Service and information center (parking hotline)
- » Wayfinding and signage
- » Customer service programs
- » Validation programs
- » Parking and transportation demand management
- » Facility safety/security/risk management

### Current Assessment

- » Q: Is the System structured and staffed to best achieve its stated goals?
- » A: Very close; key new hires are helping the department move closer to this goal. Separation from Public Safety has allowed the department to formalize a sense of identity and has increased focused on transportation and parking as an important campus support function.
- » Q: Are all parking operations to be managed through a centralized operation or do other departments have the ability to get involved in limited parking operations?
- » A: Other departments are involved in limited parking operations, for example:
  - » The Hospital is involved in managing the transportation and parking experience for their patients/customers.
  - » Athletics can issue permits for special events operations.
  - » Each department has a parking coordinator, typically someone in administration.
  - » McLaurin handles many special event services
  - » IT/HR support are outsourced to shared service center.
  - » Staff is concerned about the new shared services model; in their experience, staff members embedded in department understand the departmental operations more thoroughly and are better able to act on the behalf of the department. There is also some concern that the shared services model will actually cost transportation and parking more financially as well.



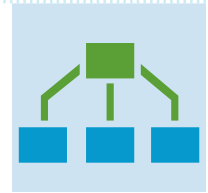
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» Q: Does the parking system have a strong leadership team?

» A: Yes, staff feel that overall, they have a very strong team that is cohesive, plays off each other's strengths and work well together. This sentiment was echoed by both department leadership and management teams, as well as the front line staff that the consulting team spoke with during the field assessment. There is one strategic hire left to make (Associate Director for Parking) and once that happens, this will free up the Director to focus more on strategic initiatives rather than operational issues. One important area for continued focus will be to ensure that both Associate Directors feel empowered to be the main point of contact for other managers (rather than the Director).



» Q: Does the current organizational structure and staffing plan provide the right mix of skills, talents and abilities?

» A: Yes, especially when the department is fully-staffed. The addition of the Executive Assistant position has also significantly helped with achieving the right mix.

» Q: Are there tools in place to evaluate staffing adequacy? Efficiency?

» A: Yes, as previously touched on, there is an ongoing staffing and organizational assessment. Additionally, the current Associate Director and Executive Assistant are performing an internal assessment of the Point-to-Point service.

### Next Steps

- Action Item** Complete and document the organizational assessment process.
- Action Item** Empower managers (beyond the leadership team) to participate in the organizational evaluation process.
- Action Item** Consider holding a management retreat / workshop to educate staff on the updated organizational structure and staffing once the new Associate Director is hired.



10 Self-Assessment Rating = 8

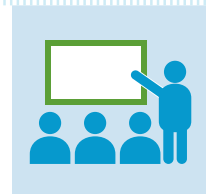


10 Consultant Assessment Rating = 8





## 6. Staff Development



### Characteristic Overview

While there is currently no formal degree program in parking management, the industry is beginning to change. The International Parking Institute (IPI) has a highly regarded and reputable educational/certification program called the Certified Administrator of Public Parking Administrator (CAPP) program that is administered by the University of Virginia. The National Parking Association offers the Certified Parking Manager (CPM) certificate program. For the most part, parking professionals are still learning as they go and bringing with them numerous skills and perspectives imported from a variety of previous work experiences.

One characteristic of the most successful transportation and parking programs is recognition of the unique knowledge, complexity, and broad skill sets required to be successful in a transportation and / or parking management role. These programs invest in the industry specific training and educational opportunities to develop their staff into parking professionals.

### Current Assessment:

- » Q: What training opportunities are in place for parking staff?
- » A: This is currently a major organization and key focus area for Transportation & Parking leadership.
  - » Typically an annual in-service training is conducted to provide staff with the “bigger picture”, however this was not completed in 2016 due to the investment of time in the Five Year Plan process.
  - » Individual managers lead other job-specific trainings, however management is working on establishing a more formalized training schedule.
- » Q: Are parking management staff CAPP certified?
- » A: Not at this time, however this is likely to be required for upper level management going forward (as part of the organizational assessment outcomes).
- » Q: Does staff participate in local, state, regional and national parking associations to develop networking and peer-to-peer communication opportunities?
- » A: UNC used to be more active in these organizations, however due to budgetary constraints, staff have not been actively involved in recent years. The goal is to re-engage in a meaningful way, potentially via committee.
- » Q: Has an onsite operational “peer reviews” been considered or conducted?
- » A: Not at this time, however leadership would like this recommendation to be included in the new Five Year Plan.

### Next Steps:

- ☞ **Action Item** The following is a list of options to consider to actively promote parking staff development within your parking operation:
  - ☞ Support participation in the International Parking Institute and National Parking Association’s certification programs.
  - ☞ Support participation in Carolinas Parking Association, or other local, state, regional and national parking associations to create networking and peer-to-peer communications. These associations also provide the best access to parking specific training opportunities for various staff levels from front-line to administrative.
  - ☞ A recommended best practice is to have an “Operational Peer Review” performed on your parking system.



# SYSTEM EVALUATION

## TASK MEMO



An “Operational Peer Review” involves having a representative from a similar university program visit and critique your parking program with a “fresh set of eyes.” Typically, this service is reciprocated. This is generally a low cost initiative that can be set up directly or through the national, regional or local parking association and is an effective way to gain and share parking knowledge.



☞ **Action Item** Build a parking resource library. A comprehensive “Recommended Reading List for Parking Professionals” is provided in **Appendix J**.

☞ **Key Idea** Consider a more formalized program for cross-training and job shadowing for staff. Managers mentioned this idea during an interview session as a great way to enhance their effectiveness when interacting with customers.

☞ **Key Idea** Make sure that staff know what training is available to them and that Transportation & Parking leadership support the investment in professional development, and that ultimately, an investment in professional development could lead to a promotion, increased salary and other benefits.

☞ **Action Item** Formalize requirement for upper level management staff to begin working towards their CAPP or CPM certification.

☞ **Action Item** Set a goal for 1-2 leadership team members to attend one national or state/regional association conference in 2017, with a bigger picture goal of joining a committee by 2018.

☞ **Action Item** include a peer operational assessment in the new Five Year Plan.

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 10 **Self-Assessment Rating = 6.5**

1 

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 10 **Consultant Assessment Rating = 6**



## 7. Safety, Security and Risk Management

### Characteristic Overview

The importance of providing a safe environment in your parking facilities cannot be overstated. The actual and perceived security of your facilities impacts the success, not only of the transportation and parking operation, but also the university functions that are supported by those facilities.

Planning for security in your parking facilities should begin during the design phase. A security audit of all facilities is highly recommended, and an example on how to approach such an audit has been included in the appendices of this memo.

The concept of “Crime Prevention through Environmental Design” (CPTED) provides useful tenets for architects, facility planners, designers, and law enforcement/security and parking professionals. Utilizing CPTED concepts helps create a climate of safety in a parking facility, on a campus or throughout a downtown, by designing a physical environment that positively influences human behavior. These concepts can also be used to retrofit environments to address specific security issues as they develop or to address emerging concerns as conditions change.

CPTED builds on four key strategies: territoriality, natural surveillance, activity support, and access control.

- » **Territoriality:** People protect territory that they feel is their own and have a certain respect for the territory of others. Fences, pavement treatments, art, signs, good maintenance, and landscaping are some physical ways to express ownership. Identifying intruders is much easier in a well-defined space.
- » **Natural Surveillance:** Criminals don't want to be seen. Placing physical features, activities, and people in ways that maximize the ability to see what's going on discourages crime. Barriers, such as low ceilings, solid walls, or shadows, make it difficult to observe activity. Landscaping and lighting can be planned to promote natural surveillance from inside a building and from the outside by neighbors or people passing by. Maximizing the natural surveillance capability of such "gatekeepers" as parking lot attendants, maintenance personnel, etc. is also important.
- » **Activity Support:** Encouraging legitimate activity in public spaces helps discourage crime.
- » **Access Control:** Properly located entrances, exits, fencing, landscaping, and lighting can direct both foot and automobile traffic in ways that discourage crime.

### Next Steps:

**Action Item** CPTED principles can be blended in the planning or remodeling of parking facilities and other public areas. In parking environments, the following specific strategies are recommended and many were observed in the newer Craige Deck facility:

- ☞ Higher floor-to-floor heights to improve openness.
- ☞ Glass backed elevators and glass enclosed or open elevator lobbies.
- ☞ Glass enclosed stairwells, perhaps open to the interior.
- ☞ “Blue Light” security phones.
- ☞ Security screening on the ground level.
- ☞ Limit access at the parking facility perimeter to locations where patrons pass by the office or cashier booths.
- ☞ Eliminate potential hiding places (for example under stairs, within storage areas, etc.)





# SYSTEM EVALUATION

## TASK MEMO



- ☞ Maintain low level landscaping.
- ☞ Ensure that all facilities are well-lit and meet or exceed the recommended minimums for parking facility lighting as established by the Illuminating Engineering Society of North America (IESNA).
- ☞ Integrate security offices, parking offices, retail shops, etc. into parking facilities to provide increased activity levels.
- ☞ Consider CCTV, alarms, motion detectors and security patrols.
- ☞ Integrate parking attendants, cleaning and maintenance staff, shuttle drivers, etc. into your parking security program.
- ☞ Incorporate safety and risk management issues into a weekly facility walk-through checklist.
- ☞ **Action Item** Ensure that Transportation & Parking staff are performing weekly walk-throughs of facilities with a consistent check-list. An example is provided in **Appendices K and L**.
- ☞ **Action Item** Include information about the safety investment and programs in a prominent location on the Transportation & Parking website.
- ☞ **Point of Information** See **Appendix B** for a white paper on parking facility security.



10 Self-Assessment Rating = 7



10 Consultant Assessment Rating = 7



## 8. Effective Communication



### Characteristic Overview

Best in Class parking operations actively engage other campus groups to help define how the parking system can best support the objectives of the campus at large that depend on a “parking system that works.” As an outside consultant coming into a campus to evaluate some aspect of a university transportation and parking program, it is not uncommon to find the parking system at odds with university administration, faculty and / or staff. While there can be various reasons for this conflict (pricing, availability, perceived “preference” for one group over another, general lack of understanding about why parking needs to be actively managed on university campuses), a good step towards resolving this conflict is improved communications and the definition of a shared vision/mission. A clear understanding of the issues and potential solutions is the kick-off point for developing the needed mutually beneficial approach. As discussed earlier, developing a set of Guiding Principles, in coordination with campus stakeholders, is a great starting point for crafting a shared vision for the future of access management on campus.

Successful programs also have well-defined relationships between various departments, especially other support departments such as: Maintenance, Enforcement, Security/Police, Communications, Facilities Management, Planning, etc.

Finally, successful parking programs are in touch with their customers and actively solicit input through meetings with campus stakeholders, customer surveys, websites/social media and public forums.

### Current Assessment

- » Q: Is there an established process for engaging partners?
- » A: Yes, this is actively done with the ACT and Executive Sponsor groups. Additionally, the department is active online and via social media, and hosts a Transportation Open House each fall to educate and inform the campus community about a parking and commuting options. Staff also indicated that they regularly communicate with regional transit partners via the Associate Director’s participation on local committees and boards.

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- » Q: Is there a process improvement / feedback protocol in place for working with partners?
- » A: This is done formally during the Five Year plan process with ACT, however this is something that staff hope will be further defined in the final deliverable of the new Five Year planning process in the communications and implementation chapters.

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- » Q: Where are relationships missing?
- » A: Staff indicated that finding ways to effectively communicate with and engage faculty and graduate student audiences is particularly challenging.

### Next Steps

**Action Item** Recommendations for increasing effective stakeholder and campus communications will be included in the new Five Year Plan deliverable, however a presentation of communication best practices has been included in [Appendix C](#).



10 Self-Assessment Rating = 8



10 Consultant Assessment Rating = 8



## 9. Effective and Accountable Revenue Control



### Characteristic Overview

Taking a systems approach to parking is an important dimension to creating a comprehensive and effective program. Having control of all or most aspects of parking can contribute to a more effective operation, because of the interactive nature of parking as a system.

Ideally, the parking system should control all parking assets; trouble arises when one department or group desires to manage parking for their “own event” or in their “own lot”. While some exceptions do occur—for instance, on campuses with an active hospital like UNC Chapel Hill—in general, the parking system should be managed comprehensively and under the direction of one set of guiding principles.

All parking related revenues should first go to fund parking programs, including preventative maintenance, maintenance reserves, parking system communications/marketing, planning and new parking resource development. If additional revenues, in excess of operational needs are available, they should be banked as reserve funds for future parking development projects or returned to the general fund for discretionary spending.

### Current Assessment

Parking Access and Revenue Control (PARCS) was self-identified as the weakest category among all of the “20 Characteristics”. This is due to the significantly aging PARCS systems located throughout the surface lots and garage facilities on campus. Staff anticipate an 18-24 month process for installation of new PARCS, including staff training with vendors. Staff noted that the system is currently out of PCI compliance due to the limitations of the Federal APD system, however they will be moving to remedy this situation at the earliest possible time.

- » Q: Has an investment in Parking Access and Revenue Control been made?
- » A: This will be one of the most significant recommendations of the new Five Year Plan.
- » Q: Does the department / key staff member understand all the components of the PARCS and utilize it to its full potential?
- » A: This is done to the best of staff’s ability given the current technology situation.
- » Q: Are available system reports used to provide enhanced management information and improved understanding of operational dynamics?
- » A: This is done to the best of staff’s ability given the current technology situation.
- » Q: Does the department use this knowledge to improve resource utilization, boost revenue generation and refine operational efficiency?
- » A: Yes.

### Next Steps

**Action Item/Point of Information** Review Section 6 (Access Revenue Control) of the Accredited Parking Organization (APO) matrix (included in [Appendix M](#)) for a full listing of action items associated with this characteristic.

**Point of Information** Consider investment in License Plate Recognition (LPR) technology to improve data collection and enforcement efficiency. See [Appendix D](#) for a white paper on LPR technologies.



10 Self-Assessment Rating = 5



10 Consultant Assessment Rating = 5



## 10. Financial Planning

### Characteristic Overview



With the exception of airports, some university systems and some very large municipalities, parking programs are often incapable of being totally self-supporting if they must carry the burden of bond debt for structured parking. For systems that cannot achieve true financial self-sufficiency, a common goal is for the parking system to cover all operational costs, but not debt service costs. Debt service costs are typically subsidized by the general fund, tax increment financing revenues, in-lieu parking fees, or other sources.

An important principal in developing a successful parking program is that parking system revenues should be tied to the larger vision and mission of the campus it is intended to serve. Development of a campus master plan which incorporates not only land-use strategies, but also critical support infrastructure such as parking, transit, pedestrian access, freight mobility, loading and unloading, etc. is an excellent means for defining the relationships of all these components and establishing clear goals and direction.

Other important financial planning elements that are recommended for all parking systems include:

- » Having a consolidated parking financial statement that tracks all sources of parking revenues and expenses.
- » Parking's revenues and expenses are well managed and its books are regularly audited.
- » Annual operating statements are published in an annual report and available for public review.
- » If a private parking operator is contracted to manage day-to-day operations, an annual parking operations and financial audit is recommended.

### Current Assessment

For this particular characteristic, the International Parking Institute's Accredited Parking Organization (APO) criteria matrix, Category 3 (Financial Budgeting and Financial Management), was used to perform the current assessment. In the APO process, items 3.1 through 3.10 each count a point towards accreditation; items 3.11 – 3.16 are considered "Accreditation with Distinction" categories. A full explanation of the APO process and scoring matrix can be found in [Appendix E and M](#), respectively.



# SYSTEM EVALUATION

## TASK MEMO



Accredited Criteria		Response
3.1	Mission and vision or other guiding statements address financial principles, such as transparency, accountability, and responsibility.	Yes
3.2	Produces and maintains an annual budget and projects a future (three or more years) financial planning document.	Yes
3.3	Produces a monthly report identifying revenues and expenses as well as variance budget to actual.	In process
3.4	Maintains and regularly reviews organization's capital plan noting project status and associated budget financial status.	Yes
3.5	Maintains a calendar of planned and completed audits (revenue control, employee safety, environment, labor control and management, cost management, etc.).	Informally but not documented
3.6	Audits include all aspects of finance and operations, including cash and financial recordkeeping and management, as well as utilization and inventory control.	Yes; staff feel like this is conducted at a higher level than other university departments however staff is not satisfied.
3.7	Maintains audit protocol and procedure documents.	Yes
3.8	Circulates documentation identifying audit findings or shortcomings to senior management and management reviews recommendations.	Yes
3.9	Senior leadership (audit committee, etc.) responds to audit findings and recommendations, decides upon a plan of action and completion timeline, and documents response and plan of action.	Yes
3.10	Maintains current SOP for accounts payable/accounts receivable.	Yes

Accredited with Distinction Criteria		Response
3.11	Reviews budget and performance documentation with authorized stakeholder groups.	Yes
3.12	Demonstrates consistent and acceptable financial performance year after year.	Yes
3.13	Financial performance meets or exceeds the targets established by the governing authority of the parent corporation.	State performs audits of university systems; obtaining this report / information is an action item to consider
3.14	Financial management is subject to routine internal audit and process improvement measures.	Not at this time; action item to consider
3.15	Produces a budget year-end financial report and operational summary.	In the past, yes, but not currently; action item to consider
3.16	Achieved a strong bond credit rating from a third-party reviewing agency. (Moody A3, S&P A-, Fitch A-)	Share in State's bond rating as an institution
3.17	Developed or achieved a level of public/private cooperation, such as a P3 partnership or other community partnership.	Described as an ongoing effort





# SYSTEM EVALUATION

## TASK MEMO



It is also worth noting in this section that managers are also actively involved in system financial management. Managers submit budgets, which are reviewed by the Director and approved. Managers are held accountable for expenditures, which helps keep a broader range of staff involved, accountable and understanding fiscal responsibilities.



Additionally, with the move to ConnectCarolina, an online portal system for students, faculty and staff, Transportation & Parking financial staff is facing challenges in accessing current financial information. Specifically, the university went to a new hybrid accrual accounting methodology which resulted in inconsistent fund and cash balances. The biggest challenge facing Transportation & Parking in this characteristic is the lack of access to accurate financial information within the existing shared services model.

### Next Steps

- Action Item** Improve / expand auditing processes and functions.
- Action Item** Produce a budget year-end financial report and operational summary.
- Action Item** Produce a monthly report identifying revenues and expenses as well as variance budget to actual





## 11. Creative, Flexible, and Accountable Parking Management



### Characteristic Overview

This section encompasses so many potential topics it could easily be a whole book in itself. Therefore, we will only attempt to touch on some key issues and principles.

One key principle is that different land uses, environments and user-groups require different parking management approaches. A comprehensive and holistic approach to “mastering the fundamentals” is a good place to start a discussion about parking management best practices. A high-level listing of those “fundamentals” includes:

- » Daily operations
- » Policies and procedures (SOP)
- » Staffing and supervision
- » Planning and CIP
- » Financial processes and oversight
- » PARCS
- » Facilities maintenance
- » Marketing and communication
- » Customer service
- » Security and risk management
- » Signage and wayfinding

Another characteristic of effective parking programs is that they have mapped out audit trails and developed processes to provide acceptable levels of control and accountability. Because of the large revenues generated, revenue control and accountability are key parking management issues. This is discussed in a later section of this memo.

Additional baseline parking management elements include:

- » Well-defined parking policies and procedures
- » Development and maintenance of parking facility operations manuals
- » Well defined and implemented facility maintenance programs
- » Parking system marketing programs
- » Effective parking and wayfinding signage programs

### Current Assessment

- » Q: Does the System offer:
  - » A: Visitor/Customer Parking Programs? Yes.
  - » A: Faculty/Staff Parking Programs? Yes.
  - » A: Commuter Student Parking Programs? Yes.
  - » A: Residential Student Parking Programs? Yes.
  - » A: Transportation/Remote Parking Programs? Yes.
  - » A: Alternative Transportation/Trip Reduction Programs? Yes.
- » Q: Are these offerings easy to find? Clearly explained and regularly reviewed for improvement?
- » A: Yes, information is listed on the department’s website.



# SYSTEM EVALUATION

## TASK MEMO



### Next Steps



Key Idea Developing policies and procedures for anticipating and managing losses of parking supply (both temporary and long term) is another basic parking management responsibility. Some key elements in this area include:

- » Planning for and communicating losses of parking supply
- » Ensuring adequate capacity to handle short-term parking supply losses
- » Having effective plans to manage routine maintenance projects, including customer communications and contingency plans
- » Having a full understanding of the financial impacts of these projects on revenue streams
- » Having defined parking replacement cost policies is another recommended best practice.

Key Idea Development of an “Annual Parking Report” can have a number of positive impacts for a parking system. It identifies key departmental issues and challenges, promotes departmental achievements, documents the “state of parking” to the stakeholders, creates a record of “system history,” and builds credibility and confidence in the department.



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Self-Assessment Rating = 7.5

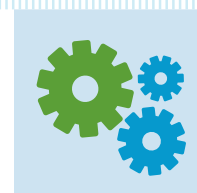


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Consultant Assessment Rating = 8



## 12. Operational Efficiency



### Characteristic Overview

Another area that is important to investigate when assessing a parking program is the overall efficiency of the parking operation. Parking system efficiency has several dimensions, depending on how the system is managed. The first area to be scrutinized is the management responsibilities of the system, i.e., what programs is the department or organization responsible for implementing. Once this has been defined, organizational structure and staffing plans are analyzed.

Development of some form of benchmarking or comparative analysis to measure costs and performance to similar operations is highly recommended. Understanding that benchmarking can be a tricky business—making sure you are comparing apples to apples, there are some basic benchmarks that make sense for downtown parking operations. For illustrative purposes, a few basic benchmarks include:

- » Parking revenue per space
- » Total operating cost per space
- » Administrative cost per space
- » Maintenance cost per space
- » Citations issued per enforcement staff (FTE)
- » Parking citation collection ratio

### Current Assessment

- » Q: How does the department identify operational processes that need improvement and then address those issues?
- » A: Goal setting activities are regularly conducted. Managers have the ability to identify and improve processes in an ongoing manner via bi-weekly meetings.
- » Q: Is there an opportunity for staff to provide feedback / ideas on how to improve operational efficiency?
- » A: Managers have the ability to identify and improve processes in an ongoing manner via bi-weekly meetings. Additionally, the current Associate Director conducts weekly “one on ones” with management team members.
- » Q: Is some form of benchmarking or comparative analysis in place to measure costs and performance to similar operations?
- » A: This is one area where staff would like direction from the consultant team as part of the Five Year Plan process.

### Next Steps

**Action Item** Staff would like recommendations on benchmarking and Key Performance Indicators (KPIs) that are being used within the industry included in the new Five Year Plan deliverable. A summary document detailing industry benchmarking information has been included in [Appendix F](#).

**Point of Information** Improving operational efficiency (i.e., P2P assessment) is a big focus of the department right now. As mentioned earlier, considerable effort has been put into building an enthusiastic and complete department leadership and staff team, with more improvements to come. An analysis of staffing will be part of the new Associate Director position.



10 Self-Assessment Rating = 8.5



10 Consultant Assessment Rating = 8



## 13. Facilities Maintenance and Asset Protection



### Characteristic Overview

Few things make a greater impression on first time visitors than the cleanliness and maintenance of your parking facilities. Beyond first impressions, however, few areas provide a greater potential return on investment than a comprehensive parking system maintenance program.

There are four general categories of parking facility maintenance:

1. **Housekeeping**—This work is typically conducted by in-house staff and consists of basic cleaning, sweeping, slab wash downs, etc. “Housekeeping” includes items such as:
  - » Sweeping of the stairs, elevator lobbies and floors on a regular basis
  - » Trash collection on a periodic basis
  - » Slab wash downs on a semi-annual basis
  - » Floor drain cleanout (including sediment basket cleanout)
  - » Cleaning of stair enclosures (stair, elevator, and storefront glass)
  - » Cleaning of doors, doorframes and glass on a periodic basis
  - » Cleaning of signage, light fixture lenses, elevator floors, doors, walls, parking equipment, etc. on a periodic basis
  - » Cleaning of restrooms, cashiers booths, offices, etc. on a regular basis
  - » Daily walkthrough of the facilities by operator to confirm that housekeeping is being performed.
  
2. **System Maintenance**—This includes tasks necessary to ensure proper operations of systems and components. “System Maintenance” includes items such as:
  - » Landscaping
    - Maintenance—leaves, lawn, trees
    - Plantings (annual)
    - Fencing—posts, chains, etc.
    - Planters
    - Irrigation Systems
  - » Painting—spot or seasonal painting
  - » Parking Equipment Maintenance
    - Ticket Issuing machines, card readers, computers, booths, gates, etc.
    - Annual maintenance contract with equipment supplier
    - It is anticipated that parking equipment will be replaced every 7 to 10 years
  - » Fire Protection
    - Maintenance Contract is anticipated
    - Drain periodically
    - Testing (twice per year)
  - » Lighting—It is anticipated that the lamps should be replaced every 2 to 3 years
    - Fixture repair and isolated replacement included in operations
    - Fixture replacement every 20 years (included in Capital Expenditures)
    - Lens Replacement every 6 years (with lamps, included in operations)
    - Lamp replacement on an as need basis—Operator should schedule lamp replacement by level to maximize light effectiveness, and to maintain economy (Note: Lamp intensity depreciates significantly, well before burnout)



# SYSTEM EVALUATION

## TASK MEMO



- » Elevators—Elevator service contract and maintenance / repairs are generally provided by an outside maintenance firm
  - Periodic cleaning of equipment will be reviewed
  - Important to provide maintenance to reduce breakdowns
  - Electrical / Mechanical / Plumbing Maintenance
    - Offices / Restrooms / Cashiers Booths
    - HVAC
    - Exhaust Fans
    - Plumbing fixtures
    - Hot water heaters
    - Lighting
- » Electrical Equipment—General and emergency cleaning / maintenance
- » HVAC Equipment—General and emergency cleaning / maintenance
  - Mechanical ventilation
  - Elevator tower ventilation system
- » Emergency Power / Lighting Testing and Maintenance Contract
  - Generator: Maintenance contract
  - UPS System: Maintenance contract
- » Plumbing—General cleanout
- » Domestic Water Maintenance
  - Drain wash down lines annually
  - Sump pump inspection
- » Doors and Hardware—Periodic inspection and lubrication (Malfunction, sticking, etc.).
- » Signage
  - Illuminated Signs—Replace lamps
  - Replace damaged signage periodically as required
- » Snow Removal / Deicing



3. **Annual General Maintenance and Repairs**—Annual general maintenance would usually be performed by outside contractors, although in some cases the operator’s staff may perform the work. This work is not typically included in a capital cost budget, and may be combined with the System Maintenance category. “General Maintenance” would include items such as:

- » **Concrete Repairs**—Isolated concrete slab, beam, joist, tee, topping, etc. repairs. In some cases, periodic concrete repairs (every 5 years) are included; however, isolated repairs between this interval should be anticipated
- » **Masonry Repair**—Isolated masonry repair should be anticipated (spot tuck pointing, damaged masonry unit replacement, resetting cap stone, etc.)
  - » **Painting**—Painting touch-up (spot / seasonal painting) should generally be performed as damage is observed. It is anticipated that repainting of exposed steel and concrete surfaces would be performed every 10 to 15 years, and parking stripes reapplied every 2 to 3 years
- » **Sealants/Expansion Joint**—Repair/replacement of isolated sealant (floor and façade) or expansion joint failure (not included under 5-year warranty). Leaking at slab cracks may also require sealant installation. Leaking joints should be repaired as soon as possible after discovery, and evidence of leaking should be removed
- » **Deck Coating**—Isolated deck coating repairs (not included under the 5-year warranty). Wear of the topcoat should be repaired prior to damage to the underlying base membrane
- » **Graffiti Removal**—Graffiti removal should be completed as soon as possible after the application



# SYSTEM EVALUATION

## TASK MEMO



- » **General Electrical Repairs and Maintenance**—Isolated corrosion damage, switchgear maintenance, panel maintenance
- » **Light Fixture Repair / Replacement**—Individual light fixture repair or replacement will require immediate attention
- » **HVAC**—Office, Restroom and Elevator HVAC repairs
- » **Plumbing**—Isolated replacement of drain lines and floor drain grates; isolated cleanout of drains / lines; Periodic sump pump repairs



4. **Periodic Repairs, Protection, and Improvements (Capital Expenditures)** This work is generally performed by outside contractors under the direction of parking consultants experienced in restoration and will consist of replacing/repairing damage to waterproofing or structural elements.

### Current Assessment

#### Asset Maintenance

- » Q: Is there the presence of an IT / IS professional?
- » A: Yes, they have an imbedded IT / IS professional.

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- » Q: Is there a policy for protecting / destroying sensitive information?
- » A: Yes, the department complies with overall university policy on sensitive document destruction.

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- » Q: Is internet safety training provided to staff?
- » A: Yes, this is also part of overall university policy and training.

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- » Q: Are vendors required to follow all departmental security protocols?
- » A: Yes, this is also part of overall university policy.

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- » Q: Department employs appropriate firewalls, virus scanners, etc.
- » A: Yes, this is also part of overall university policy.

#### Facilities Assessment

- » Q: Department performs regular onsite inspections, at least quarterly?
- » A: Yes.

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- » Q: Department tests emergency management systems, at least quarterly?
- » A: Call boxes in parking facilities are regularly tested.

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- » Q: Department inventories maintenance needs and solutions?
- » A: Yes, this documentation is kept in hard-copy and electronic format.

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- » Q: Maintain copies of agreements with third parties?
- » A: Yes, this documentation is kept in hard-copy and electronic format.

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- » Q: Department has a capital renewal plan?
- » A: Yes.



# SYSTEM EVALUATION

## TASK MEMO



- » Q: Department budgets for maintenance reserves and sets aside funds for facility upgrades?
- » A: Currently budget for maintenance reserves; they keep up their facilities but don't have a huge reserve.

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- » Q: Perform a conditions assessment "walk-through" at least annually (by a qualified engineer)?
- » A: Yes, annual visual inspection / walk-through is conducted by university staff engineer

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- » Q: Perform a full conditions assessment at least every three years?
- » A: Full conditions assessments are conducted every five years.

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- » Q: Department provides a reconciliation report for items identified in the conditions assessment?
- » A: This is an area for improvement as this is done but not formally documented.

### Next Steps

- Action Items** A few best practices related to parking facility appearance and maintenance are noted below.
  - Paint interior surfaces white to enhance the perception of cleanliness and safety and improve lighting levels
  - Develop a comprehensive preventative maintenance program for all essential systems
    - Parking Access and Revenue Control System
    - Elevators
    - Lighting and Energy Management Systems
  - Organize and track parking facility warranties in a binder. Schedule warranty inspections six months prior to warranty expiration. Document inspections with digital photos (ideally with time/date stamps) and written reports
  - Regularly schedule facility condition appraisals by an experienced parking consultant and develop a prioritized program of facility maintenance repairs
  - Set aside adequate maintenance reserve funds based on a prioritized facility maintenance action plan
- Action Item** Consider moving the conditions assessment cycle from every five to every three years, per industry best practice.
- Action Item** Formalize the reconciliation report process for items identified in the conditions assessment.
- Point of Information** Annual Maintenance Costs by Category
  - Housekeeping, Operations, and Operator Maintenance will vary based on specific operations requirements, but will approximate \$400 to \$600 per space per year.
  - Annual General Maintenance and Repairs costs will approximate \$0.10 to \$.15/sf per year (\$35 to \$50 per space per year), depending on condition and type of structural system.
  - Periodic Repairs, Protection, and Improvements (Capital Expenditures) - The maintenance reserve fund can likely be lower during the first 10 years of life, and increased to accommodate improvement planning budgets. For a new structure, this item may range from \$75 to \$100 per space per year for the first 10 years
- Point of Information** See [Appendix O](#) for a copy of IPI's Emergency Preparedness Manual.
- Point of Information** See [Appendix H](#) for a white paper on parking garage facility design guidelines.



10 **Self-Assessment Rating = 6**



10 **Consultant Assessment Rating = 6**





## 14. Effective Use of Technology

### Characteristic Overview

Best in Class parking operations almost always have a comprehensive and integrated parking access and revenue control system that offers the following benefits:

- » Consistent operations and features for customers
- » Simplified/consistent training for staff and auditors
- » Similar equipment and models provides for simplified maintenance and less costly parts stocking
- » Consolidated system-wide reporting and management information

Staying informed of new technologies can help provide the parking department with the best tools available to achieve its goals. New technologies can help you, and your staff, work smarter, not harder. Customer service levels can be enhanced through the use of Automatic Vehicle Identification (AVI) systems, web-based permit renewal programs, pay-on-foot payment stations, etc.

Other benefits of incorporating new technologies are improved overall efficiency and effectiveness, reductions in operating expenses, improved management controls and the ability to implement seamless, customer friendly payment system options such as Internet payment options.

### Current Assessment

Transportation & Parking leadership feel that technology is one of the department's most significant opportunity areas for improvement. With replacement of the university's aging Parking Access Revenue Control (PARCS) technology as a key recommendation of the new Five Year Plan process, the department will be making a significant leap forward in its ability to serve parking customers and have access to the level of data that staff need to effectively manage existing and future parking and transportation assets.

Highlights from the technology self-assessment conversation include:

- » Areas where staff felt that the department was currently doing well on the technology front included transit and TDM programs
- » Staff are excited about the improvements to the Point-to-Point system that will result from the current analysis of that important service
- » Pay by Phone (ParkMobile) will be implemented in fall 2016
- » Event parking customers now have the ability to pay online in advance
- » GoTriangle recently partnered with Uber to provide first and last mile service
- » Uber is working to find additional ways to serve the community, especially with regards to nighttime rides (Safe App)
- » TransLoc is working on an app that will provide real-time transit information





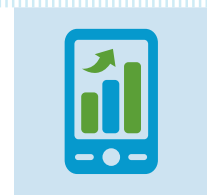
# SYSTEM EVALUATION

## TASK MEMO



### Next Steps

Technology recommendations, including suggestions on how to best promote and message the accompanying change/impact to customers, will be detailed extensively in the new Five Year Plan deliverable. However, a few key items that staff wanted to ensure were discussed in the Five Year Plan, include information about the following technologies and/or vendors:



- » Space monitoring spaces (i.e., Parkifi)
- » Affordable real-time space counting information (i.e., Parking Logix)
- » Special event management technologies, specifically:
  - » Ride times
  - » Ingress / egress information
  - » App integration
  - » Real-time traffic information





## 15. Parking System Branding, Marketing and Strategic Communication



### Characteristic Overview

This is one of the most over looked aspects of parking system management. An effective parking system marketing and promotions program is one way to quickly set your parking operation apart from the ordinary. The following is a list of action items that can help enhance an existing program.

- » Develop a consistent Parking System Brand
  - » The brand should promote the image you want people to have of the system
  - » It should reinforce the positive aspects of the system
- » Use consistent signage to “tie the system together”
- » Develop parking “E-Bulletins”
- » Designate a parking spokesperson
- » Regular personal contact with customers
- » Develop parking deck floor identification (Themed graphics, music, etc. could be considered an extension of a public arts program)
- » Develop cooperative relationships between public and private parking operations to promote efficient use of resources for large public events.
- » Develop a parking information database
- » Use billing system to distribute system info and promotional materials
- » Utilize “Guerilla Marketing” (creative/low cost concepts) techniques.

### Current Assessment

Staff feel that this is an area where the department has both made tremendous progress, and where there is area for improvement. A recent website refresh and assistance provided from UNC Creative have helped create a forward-thinking and visually appealing look and feel for Transportation & Parking’s online presence. The website is really the departments “one stop shop” for information on policies, programs and overall information. Staff have been hearing that social media on campus is "saturated" and had become "too noisy" of a medium to be a very effective communication tool for Transportation & Parking. Leadership asked for examples of peer / industry best practice for this characteristic so resource information has been provided in [Appendices C and I](#).

Additionally, one important item to note that has been discussed throughout the new Five Year Plan process is the department’s desire to understand how to more effectively communicate with the campus community during implementation of the new Five Year Plan. Recommendations on this front will be provided in the larger Five Year Plan deliverable, with specific detail on type of communication strategy, budgeting, timing and key campus partners.



# SYSTEM EVALUATION

## TASK MEMO



### Next Steps:

- ➦ Key Idea: Incorporate communications planning into the department’s annual planning and budgeting process.
- ➦ Action Item: Consider a goal marketing and communications budget of \$8/space per year.
- ➦ Action Item: Review the resource material in **Appendix C**, which includes a presentation of communications and marketing best practices from 2016 recent Pacific Intermountain Parking and Transportation Conference in Denver, Colorado. This presentation includes specific action items for programs of all levels of sophistication as well as case study examples from other programs, municipal and university, from around the country.



10

**Self-Assessment Rating = 8**



10

**Consultant Assessment Rating = 8**



## 16. Customer Service Programs

### Characteristic Overview

The campus community depends on a parking system that works and contributes to a positive experience of the university. Because parking is the first and last impression customers visiting the campus will have, providing a high level of customer service is critical. When weighing the importance of customer service, consider these statistics:

- » An average business never hears from 96% of its unsatisfied customers
- » On average, for every complaint received there are 26 customers with problems
- » The average unsatisfied customer tells 9-10 people about their problem
- » Customers who have had the problems solved tell five people, on average

A strong customer service program can provide the following benefits:

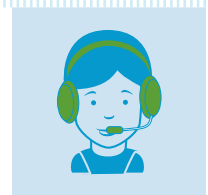
- » Helps create a more “friendly” atmosphere
- » Improves the image of Transportation & Parking Services and the campus at large
- » Contributes to increased facility utilization (and therefore revenue)
- » Contributes to increased acceptance of, and adherence to, parking regulations

What are some characteristics of bad customer service?

- |                   |                                  |
|-------------------|----------------------------------|
| » Indifference    | » Not listening                  |
| » Unfriendliness  | » Getting the brush-off          |
| » Runaround       | » Just going through the motions |
| » “Joe Rule-Book” | » No follow-up                   |

What are characteristics of good customer service?

- » Always be friendly and respectful
- » Allow customers to fully explain their situation, without interruption (let them vent)
- » “Actively listen” to what your customers say
- » Ask questions seeking clarification
- » Maintain eye contact
- » If the customer is making a complaint, always apologize for the situation (and mean it!)
- » Explain what you can do for the customer, not what you can’t
- » Always remember that tone of voice and physical movements convey meaning
- » Walk through the service process with the customer, explain the options
- » Help the customer understand the options and achieve a level of buy-in
- » Make sure they know you are there to help
- » Always conclude a service opportunity with a thank you
- » If possible, follow-up with the customer to see if the solution worked and if they are satisfied





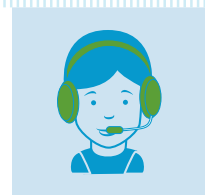
# SYSTEM EVALUATION

## TASK MEMO



### Current Assessment

During discussion with staff, the main are for growth identified in this characteristic was identification of specific, actionable strategies to weave an increased focus on customer into several other key department functions / activities. Most notably, Transportation & Parking leadership expressed a desire to include more formal customer service training in onboarding and annual staff training activities. Additionally, some “low hanging fruit” action items to encourage “quick wins” were discussed and are included in the “Next Steps” section below.



### Action Items for the Future

- ➦ **Key Ideas** Other recommended strategies to keep in mind during annual planning and system improvement activities service include:
  - ➦ Focus on employee training and good hiring practices
  - ➦ Hire friendly, attentive, outgoing knowledgeable attendants
  - ➦ Increase personal contact between the parking system manager, stake holders and customers
  - ➦ Institute performance measurements and utilize for company and employee incentives
- ➦ **Action Item** Consider creating and implementing a parking services program (battery jumps, lock-outs, flat-tires, escorts, audio book check-out, etc.)
- ➦ **Action Item** Implement a “Parking Hot Line” that provides an immediate response, is centralized, easy to remember number and encourages follow-up
- ➦ **Action Item** Incorporate activities to measure program effectiveness (customer surveys, etc.) regularly throughout the Five Year Plan implementation process.
- ➦ **Action Item** Implement a secret shopper program to evaluate customer service; this is a great way to involve students
- ➦ **Action Item** Develop a “New Employee Parking Brochure/Information Packet” (digitally) to make it easier for larger departments or schools to get their employees into the system
- ➦ **Action Item** Formalize customer service training as part of the employee onboarding and annual training processes.



10 Self-Assessment Rating = 8



10 Consultant Assessment Rating = 8



## 17. Special Event Parking

### Characteristic Overview

Coordinating parking for special events, almost more than any other parking management activity, requires a cooperative effort with the larger campus community. Some of the keys to success in this area include the development of a well-defined special events policy and a detailed system for coordination of special events.

Providing practical incentives for other groups to communicate with and include the Parking Department in their planning processes early on is critical. Examples of the incentives that parking programs can provide include: coordination services, parking promotions, special rates, restricted parking enforcement, etc. for those who participate in the special event planning process.

Finally, be consistent in providing those that work with the parking system a high level of service. Conversely, provide disincentives for those that ignore the special events parking policy or chose to not include parking in their planning.

### Current Assessment

Transportation & Parking leadership indicated that they considered their special events operation to be “very robust and well-organized”, with regards to special events parking management policies, communications and messaging. As part of the new Five Year Plan process, the consultant team will be taking a focused look at a few specific areas of special event parking management, specifically for football and basketball games.

Leadership recently conducted a thorough review of event management on campus and identified one important area for improvement: taking a more holistic approach to special event parking management. Currently, special events are largely parceled out to different departments, which can create an inconsistent customer experience. While there is no official campus-wide special events process, Transportation & Parking staff can be left out of the communication loop, and as a result are unable to proactively provide support for campus events, in some instances.

### Next Steps

- Action Item** Transportation & Parking leadership would like best practice information on special event parking management to be included in the new Five Year Plan.
- Key Idea** Consider creating an online annual event calendar that can be updated by departmental parking coordinators and staff to help increase awareness of “regular” special events. A memorandum of observations and recommendations can be found in [Appendix N](#).



10 Self-Assessment Rating = 8

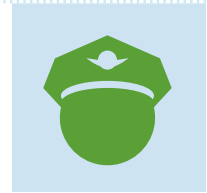


10 Consultant Assessment Rating = 7





## 18. Effective Enforcement



### Characteristic Overview:

Having an effective parking management program requires that the rules and regulations be enforced. Best in Class parking operations have adopted the philosophy of being customer focused not revenue or violator-focused. Strategies that encourage the campus community to park legally should be the main focus of a well-rounded and customer-focused enforcement program.

### Current Assessment

- » Q: Are parking rules, regulations and consequences are clearly posted?
- » A: Yes, this information is provided to parking customer and available online.

---

- » Q: Do customers know what their options are if booted or towed?
- » A: Yes, the university both boots and tows; information is provided to parking customer and available online.

---

- » Q: Is the ticket review and adjudication process clear and transparent?
- » A: Yes, if at all possible, warning tickets are issued and it has been a department goal to reduce citations and focus on campus education.

---

- » Q: How are scofflaws treated?
- » A: The university attempts to collect for one year and then unpaid violations are sent to the state.

---

- » Q: Is education the first priority?
- » A: Yes, encouraging campus members to park legally is top priority.

### Action Items for the Future

- » **Key Idea** The following are enforcement program elements that help assure that your program avoids some common pitfalls.
  - » Define who to contact regarding parking enforcement citations, towing, etc. Have a central number that everyone knows to call for info regarding parking enforcement (eliminate the run around).
  - » Ensure that parking rules, regulations and consequences are clearly posted.
  - » Ensure that if towing or booting is a possibility, that the number to call for towed/booted vehicles is clearly posted on signs and notices.
  - » Define how enforcement revenues are to be collected and used.
  - » Define who sets enforcement policies.
  - » Have a clearly stated process for adjudicating parking citations. Adjudication should not be done by the agency issuing citations.
  - » Define who has the authority for towing, booting or other enforcement practices.
  - » Make paying for parking citations as easy as possible.
  - » Provide incentives for early citation payment and disincentives for late or non-payment.



10 Self-Assessment Rating = 9

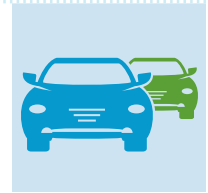


10 Consultant Assessment Rating = 9





## 19. Transportation Demand Management



### Characteristic Overview:

Because the cost of providing parking can be so high, strategies to manage parking demand is an important consideration in parking system planning. Incorporating parking and transportation demand management also ties into environmental goals and objectives such as the desire to reduce pollution, decrease traffic congestion, reduce reliance on single occupant vehicles, etc.

When evaluating options to reduce parking demand, integrating transportation demand management (TDM) strategies into your parking program philosophy is a recommended strategy. A few best practices include:

- » Use parking pricing and rates as tools to promote desired behaviors.
- » Take advantage of employer-paid and federal pre-tax benefit options.
- » Promote carpool/vanpool programs by offering rideshare matching services.
- » Provide preferred parking for carpools/vanpools.
- » Subsidize transit passes for university employees.
- » Provide a “Guaranteed Ride Home” program for those who participate in transportation alternative programs.
- » Integrate bicycle racks and storage lockers in parking facilities.
- » Show transit stops on parking maps.
- » Provide remote parking options and promote park and ride options on the parking web site.
- » Parking “cash out” programs that place the “choice” back in the hands of the customer.

### Current Assessment

UNC has made a robust investment in TDM, with a dedicated TDM coordinator staff position that offers a full-service approach to connecting the campus community with available options. Transportation & Parking leadership reported that participation in the Commuter Alternative Program (CAP) has plateaued over the years with regards to the number people that want to join the program and be recognized, not necessarily in the number commuters. A few other key concepts / “wish list” items that were discussed during this characteristic, include:

- » Desire to engage the bicycle via program offerings like bike share.
- » Would like more regional transit connectivity beyond Go Triangle.
- » Alternative work schedules / teleworking are potential strategies for exploration, where appropriate.
- » Providing more program and financial support for their dedicated TDM coordinator.



# SYSTEM EVALUATION

## TASK MEMO



### Next Steps



- ☞ **Action Item** A list of key questions to ask on a regular basis (preferably as part of the department’s annual budgeting process) include:
  - ☞ Are demand management options considered as well as parking supply additions during the planning process?
  - ☞ How are options to reduce parking demand reviewed?
  - ☞ How are transportation demand management strategies integrated into your parking program philosophy?
  - ☞ How is it determined where investments should be made?
- ☞ **Action Item** Transportation & Parking leadership would like a robust discussion of UNC’s current TDM program and industry / peer best practice information included in the new Five Year Plan.
- ☞ **Key Idea** Transportation & Parking leadership would like additional information on how to effectively increase and engage participants in their commuter program. An interesting partnership to look at is the program that Seattle Children’s Hospital created with technology partner LUUM to engage hospital staff in a social media based competition to increase bicycle ridership.

1  10 **Self-Assessment Rating = 9**

1  10 **Consultant Assessment Rating = 9**



## 20. Awareness of Competitive Environment



### Characteristic Overview:

Another characteristic of effective parking programs is that they are keenly aware of their competitive environment. They actively monitor private sector parking operators for changes in rates, new services offered, new technologies being used, etc.

An important dimension to staying competitive is being aware of what parking systems at other universities are doing. What has been tried? What has worked? What hasn't? Participation in professional associations, sending key staff to parking conferences and implementing the peer-review process discussed under the Staff Development section earlier are good ways of developing a network of contacts to help you stay up-to-date on the latest technologies and management practices.

### Current Assessment

Staff reported feeling that while they've been "ahead of the curve historically", budgeting issues and resource reallocation/realignment at the university level have provided a challenge to keeping up with industry best practice. It is hoped that the current organizational improvement process will help get the department "back on track". The goal of leadership is to position their department as one of the premier programs in the county; doing so well that no one can compete with us." This is especially important due to the recent move to outsourced campus functions like the student stores.

Transportation & Parking leadership liked the idea of conducting a peer operational review, especially to look at formalized processes for review of parking rates as they know they are getting "close to what the market will bear". Recent comparisons with local institutions, NC State and Duke, have been completed for benchmarking purposes. Leadership also feels that increased involvement in industry organizations like IPI will be a meaningful action item to improve their understanding of the competitive environment.

### Next Steps

- Action Item** A list of key questions to ask on a regular basis (preferably as part of the department's annual budgeting process) include:
  - ☞ What is the competition doing in your industry / community?
  - ☞ Are you ahead of or behind the curve?
  - ☞ What is the potential impact to your operation if competition increases?
- Action Item** Transportation & Parking leadership would like recommendations on how to make improvements to their awareness of the competitive environment included in the new Five Year Plan.
- Key Idea** Regular parking rate surveys help maintain awareness of the competitive environment.
- Key Idea** Peer assessments can be an important (and affordable!) tool that increase department knowledge and create connection between the UNC program with peer institutions who can serve as partners and resources.

1 10 **Self-Assessment Rating = 9**

1 10 **Consultant Assessment Rating = 8**

SECTION 2



FIELD ASSESSMENT



## Field Assessment

As a additional piece of the System Evaluation, the Kimley-Horn team conducted a brief tour of a few targeted Transportation & Parking facilities, including the Point-to-Point (P2P) service dispatch center and vehicle storage area, the maintenance and meter repair shop, a variety of surface parking lots and the Craige Parking Deck located along Paul Hardin Drive and Manning Drive.

### Point-to-Point

The Point-to-Point (P2P) provides both fixed-route and on-demand shuttle services for the UNC Chapel Hill campus community. Dispatch services are available 24 hours a day, Monday through Friday and from 9:00 AM to 5:00 PM on Saturday and Sunday.

Fixed-Route Services include:

- » **P2P Express**—Serving South Campus and Franklin Street
- » **RR Lot Shuttle**—Serving the Resident Remote (RR) storage lot on Estes Drive
- » **Library Shuttles**—Serving the Main Quad Libraries and the Law School Library
- » **Airport Shuttle**—Serving RDU Airport for Fall, Thanksgiving and Spring Breaks

On-Demand Services include:

- » **Accessibility Service**—Service for students and employees with mobility impairments
- » **After-Dark Service**—Service to/from University-owned locations not served by P2P Express
- » **Campus Health Shuttle**—Service to/from Campus Health Services and UNC Hospitals Emergency Room
- » **Emergency Ride Back**—Service for Commuter Alternative Program (CAP) members going to a Park & Ride lot or residence in Chapel Hill or Carrboro

It should be noted that the P2P operation is currently undergoing an internal evaluation by Transportation & Parking staff, and that the recommendations from this evaluation will likely address many of the issues identified below.

P2P manager Lee McRae provided a tour of the P2P dispatch room and vehicle storage area. It was observed that Mr. McRae's operation has outgrown its current location. With 25-30 full and part-time employees utilizing one dispatch area and one break room, space was very limited. However, it was observed that Mr. McRae was running an efficient and organized service, and making the most out of his existing resources. When asked about challenges for P2P beyond current physical space limitations, Mr. McRae cited the need to upgrade their current software and equipment, as well as the need for more full time positions. Currently, P2P has a significant amount of temporary employees that cannot serve in their roles for more than one year under current UNC Chapel Hill employment regulations. The inefficiency of using part-time staff is challenging in a variety of fronts, including:

- » Time and financial resources spent on recruiting and training new staff.
- » Presence of a larger number of staff that work fewer, part-time hours can contribute to additional coordination / management of scheduling.
- » Constant "churn" or driver turnover can prevent stability in a route that might be beneficial to riders and the univeristy. For example, some of the overnight routes can have a more rambunctious clientele which might be challenging for a less seasoned driver.



# SYSTEM EVALUATION

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Additionally, Mr. McRae indicated that he was looking at new buses to replace some of his aging fleet, as well as larger vehicles to meet demand. This replacement is targeted for early 2017. He also stated that additional room would be needed for vehicle parking and storage as their current location is regularly at capacity.



*P2P Vehicle Storage Lot*



*P2P Bus*



*P2P Shuttle*

## Maintenance and Meter Repair Shop

The consulting team also performed a “drop-in” inspection on the maintenance and meter repair shop. Maintenance manager Adrian Naylor provided a guided tour of the facility, which acts a central hub for repair of parking pay stations, parking-related signage materials and for maintenance employees.

As illustrated in the photographs, the maintenance shop was found to be in excellent shape—clean, extremely well-organized and obviously managed with great pride. A few highlights of the maintenance and meter shop tour worth noting include:

- » Office, employee break room, employee work space and maintenance shop areas were all tidy, brightly-lit and all tools, parts and materials were well-labeled for easy access.
- » Daily maintenance logs were in a visible location, clearly filled out and up to date.
- » New and used mechanisms for both the LUKE pay stations and Parking Access Revenue Control systems were well-stocked and correctly labeled for quick access by maintenance staff.
- » Employees had a nicely appointed kitchen/break-room area.
- » Parking signs, poles and other signage related materials were well-stocked and labeled.

It was quite clear to the Kimley-Horn team that the UNC Transportation & Parking maintenance and meter repair shop is actively managed by an experienced and dedicated manager who is committed to providing an excellent work environment for employees and exceptional service to the UNC Chapel Hill campus community. In total, this was one of the most well-organized facilities that the consultant team has seen at a university. This is especially notable as this was a “drop-in” visit and staff were not given time to prepare.



*Maintenance Shop Workstation*



*Pay-in-Lane Mechanism Repair Station*



# SYSTEM EVALUATION

## TASK MEMO



### Craige Deck Visual Review

Representatives from Kimley-Horn also toured the Craige Deck on-foot and performed a high-level visual assessment of the facility on Wednesday, July 13, 2016 (at approximately 10:30 AM EST) using the International Parking Institute’s (IPI) Accredited Parking Organization (APO) Part II: Field Assessment as a guide. As one of the Kimley-Horn team members is an official APO Site Reviewer for IPI, this was done to provide Transportation & Parking with an example of how one of their facilities might be scored if they decide to pursue accreditation at a later date.

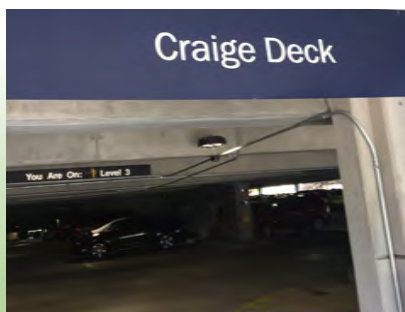
The following section includes input in the form of photographic documentation and accompanying consultant comments, as well as a completed APO Field Assessment checklist.

Important Note: This walk-through was not done as a formal visual condition appraisal or site inspection, merely as a high-level visual walk-through to identify any areas for improvement for Transportation & Parking Services.

### CRITERIA 1.1: APPROACH, INTERNAL, AND GUIDANCE SIGNAGE IS CLEAR, CONCISE, AND APPEARS TO BE CLEAN AND WELL-MAINTAINED

» Reviewer Comments:

- » While some external signage does exist, the entrance signage is small and challenging to see, even on foot.
- » The main deck entrance on Paul Hardin drive was in need of some minor maintenance, repair and cleaning. While the landscaping was well-maintained, the drive lane curb paint was significantly worn. Additionally, drive lane overhead signage was broken.
- » There is an old attendant booth located immediately inside the deck on the right hand side. The booth is out of commission, and old, faded signage still hangs in the window and the booth looks to be in disrepair and a potentially attractive area for vandals.





# SYSTEM EVALUATION

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### CRITERIA 1.2: SIGNAGE SHOWS POSTED HOURS OF OPERATION AND RATES.

- » Reviewer Comments:
  - » While small and challenging to read from a vehicle, signage was present indicating that the Craige Deck was for Student or Employee parking only and that a permit was required.
  - » Signage indicated that parking is allowed 24 hours per day.



### CRITERIA 1.3: THERE ARE NO UNNECESSARY, OUT OF DATE, OVERLY REDUNDANT SIGNS.

- » Reviewer Comments:
  - » While signage had clearly been recently updated, there was still remnants of the old signage present in some locations.
  - » Additionally, there were several different styles of signage used throughout the facilities' lack of cohesive branding.



### CRITERIA 1.4: COMPLIANCE AND INFORMATION SIGNS ARE VISIBLE TO DRIVERS.

- » Reviewer Comments:
  - » Directional and regulatory signage was present.
  - » As noted previously, some regulatory signage, including signage about who is permitted to park in the facility is challenging to read in a vehicle due to the size.







# SYSTEM EVALUATION

## TASK MEMO

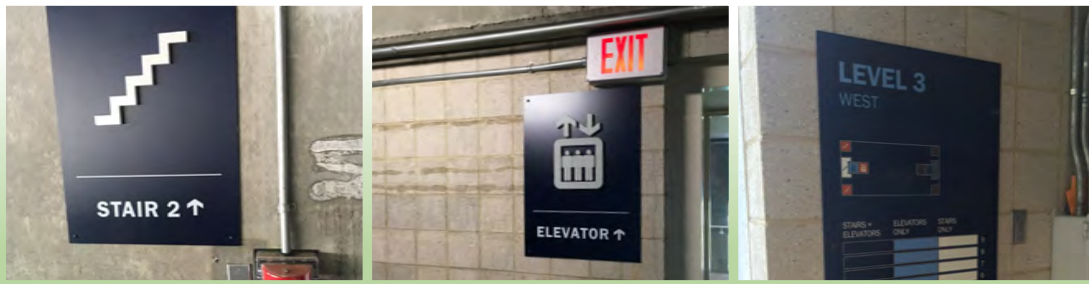


### CRITERIA 1.5: RESERVED OR SPECIAL NEEDS SIGNS ARE APPROPRIATELY PLACED FOR THE RESERVED GROUP OR INDIVIDUAL SERVICED.

- » Reviewer Comments:
  - » Accessible parking was clearly marked, as were reserved spaces.

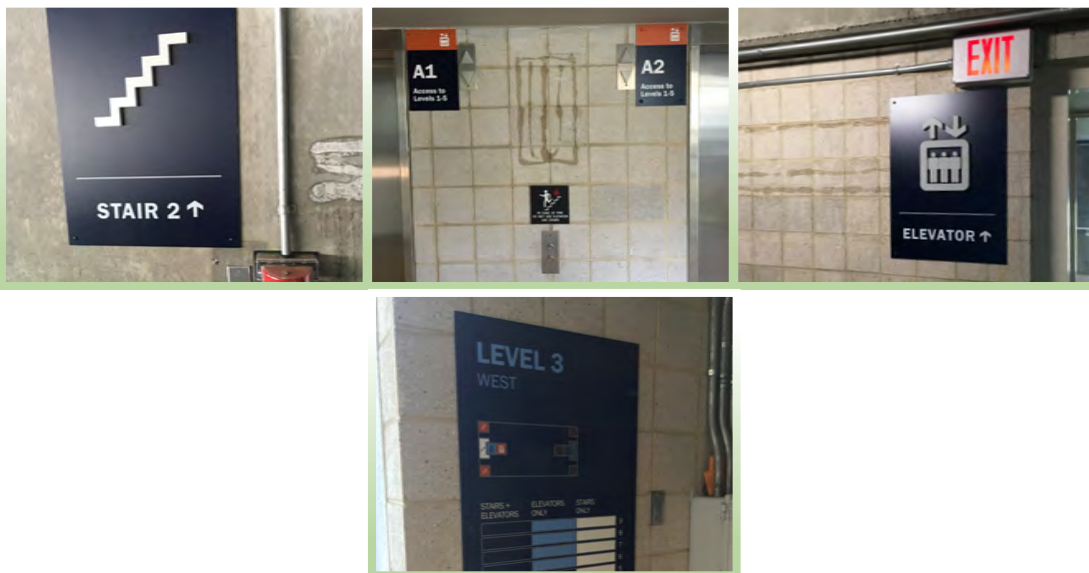
### CRITERIA 1.6: COMPLIANCE AND INFORMATION SIGNS USE INTERNATIONAL SYMBOLS.

- » Reviewer Comments:
  - » The new directional signage utilizes symbols for stairs, directional arrows and elevators.
  - » Wayfinding signage located on each floor also utilizes pictures to indicate accessibility information.



### CRITERIA 1.7: WAYFINDING, IDENTIFICATION AND REGULATORY SIGNAGE AND ASSOCIATED SYSTEMS ARE CURRENT, CLEAR, CONCISE, AND CLEAN.

- » Reviewer Comments:
  - » As mentioned in Criteria 1.1, internal signage has been upgraded and is clear, concise and well-maintained.
  - » Wayfinding signage is located appropriately throughout the facility.





# SYSTEM EVALUATION

## TASK MEMO



### CRITERIA 1.8: SIGNS ARE DESIGNED WITH HIGHLY-CONTRASTING ELEMENTS (DARK BACKGROUND WITH LIGHT GRAPHICS OR VICE VERSA).

» Reviewer Comments:

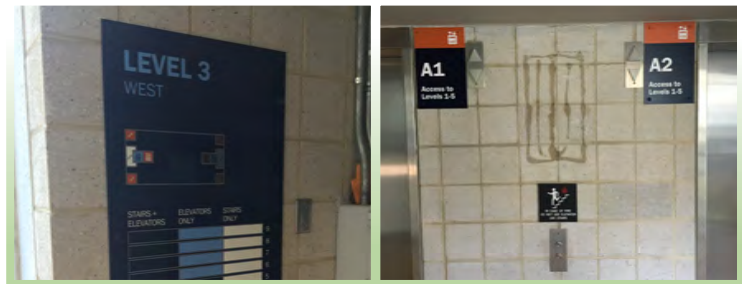
- » The new signage package is designed appropriately with a dark blue background a light blue and/or white font.



### CRITERIA 1.9: DECK LEVEL GUIDANCE INFORMATION IS AVAILABLE.

» Reviewer Comments:

- » The new signage package includes guidance for both pedestrians and vehicular traffic.
- » Some signage is branded with themed athletics graphics for a given floor.



### CRITERIA 1.10: PAY BY CELL SIGNS OR LABELS PRESENT AND VISIBLE TO PATRONS.

» Reviewer Comments:

- » This criterion is not applicable to this facility.

### CRITERIA 1.11: AREA IS FREE OF DANGEROUS CONDITIONS, I.E., MATERIALS, ACTIVITIES, CONSTRUCTION, AND REFUSE.

» Reviewer Comments:

- » The site reviewers did not observe any dangerous conditions related to materials, construction or refuse immediately visible to the naked eye present at this facility during their walk-through on July 13, 2016.

### CRITERIA 1.12: EMERGENCY AND COMMUNICATIONS SERVICES ARE MARKED AND FUNCTIONAL, LIGHTS AND SYSTEMS FUNCTIONING.

» Reviewer Comments:

- » The site reviewers visually observed that the emergency and communications services were marked and appeared to be functional during the walk-through on July 13, 2016.
- » There were instances on the deck's main floor where overhead lighting appeared to be missing, specifically near the western-most edge of the deck.





# SYSTEM EVALUATION

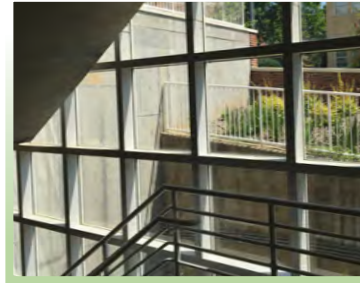
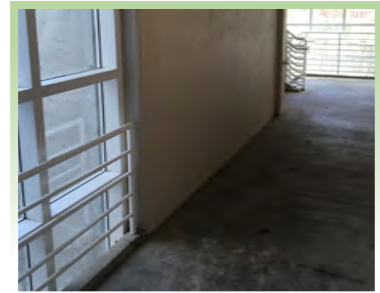
## TASK MEMO



### CRITERIA 1.13: AREAS ACCESSIBLE TO THE PUBLIC ARE OPEN AND VISIBLE, AND DEVICES ARE PLACED SO TO MINIMIZE DARK OR NON-VISIBLE AREAS.

» Reviewer Comments:

- » This facility utilized natural lighting well and had design features that maximized visibility throughout the parking areas.
- » Stairwells were well-lit with natural light during the midday hours when this visual assessment was conducted.
- » It was noted that some sight issues were present at the stairs, where the elevator walls impeded sight lines into the deck



### CRITERIA 1.14: SIGHT LINES ARE CLEAR TO EXITS.

» Reviewer Comments:

- » The site reviewers visually observed that sight lines were clear to exits during the walk-through on July 13, 2016.



### CRITERIA 1.15: LIGHTS MAKE USE OF BRIGHT, WHITE LIGHT.

» Reviewer Comments:

- » The site reviewers visually observed that lighting fixtures displayed bright, white light during the walk-through on July 13, 2016.
- » As noted above, there were some instances where lighting fixtures were missing their bulbs and/or not functioning during the walk-through on July 13, 2016.





# SYSTEM EVALUATION

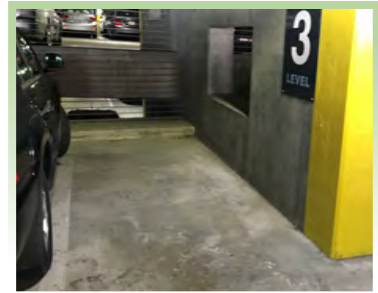
## TASK MEMO



### CRITERIA 1.16: LIGHTING IS INTACT, LIGHTS ARE ACTIVE, AND THERE ARE NO DARK AREAS.

» Reviewer Comments:

- » The site reviewers visually observed that lighting fixtures appeared to be intact during the walk-through on July 13, 2016.
- » As noted above, there were some instances where lighting fixtures were missing their bulbs and/or not functioning during the walk-through on July 13, 2016.
- » Dark areas around the girders were observed during the walk-through time frame of approximately 10:30—11:15 AM EST. An evening walk-through was not performed.



### CRITERIA 1.17: LIGHTING, FIXTURES AND MACHINE SURFACE FIXTURES OR INTERFACES ARE SHATTER PROOF AND/OR PROTECTED.

» Reviewer Comments:

- » It appeared that precautions had been taken to protect lighting and other surface or wall-mounted fixtures from vandalism or impact.
  - Security cameras were observed to be housed securely
  - Emergency lighting and related mechanisms were also housed protectively
  - Lighting was recessed



### CRITERIA 1.18: ENTRY/EXIT PLAZAS, DRIVE AISLES, PARKING BAYS AND DRIVE AISLES ARE EVENLY ILLUMINATED (NO DARK AREAS).

» Reviewer Comments:

- » The site reviewers visually observed that entry/exit plazas, drive aisles, parking bays and drive aisles appeared to be evenly illuminated during the walk-through on July 13, 2016.
- » Dark areas around the girders were observed during the walk-through time frame of approximately 10:30—11:15 AM EST. An evening walk-through was not performed.





# SYSTEM EVALUATION

## TASK MEMO



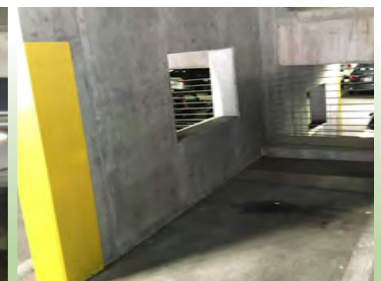
### CRITERIA 1.19: LIGHTING SPILL OVER IS MITIGATED.

- » Reviewer Comments:
  - » As the review was conducted during the day, the potential issue of lighting spillover could not be addressed.
  - » Minimal lighting spill over was observed in areas that had not been transitioned to the new LED lighting mechanisms.



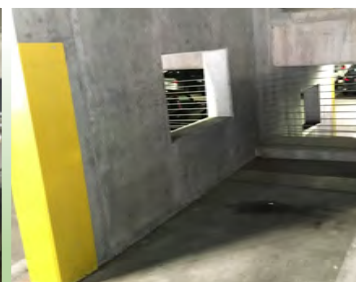
### CRITERIA 1.20: PARKING SURFACES AND PEDESTRIAN AREAS ARE CLEAN AND FREE OF ROAD GRIT, WATER, REFUSE, AND NON-VEHICLE ITEMS OR STORAGE.

- » Reviewer Comments:
  - » In large part, the parking and pedestrian areas were both observed to be relatively clean and free of grit, refuse or non-vehicle storage.



### CRITERIA 1.21: ASPHALT AND CONCRETE SURFACES ARE FREE OF CHIPS, POTHOLES, CRACKS OR SLAB HEAVES AND TRIP EDGES.

- » Reviewer Comments:
  - » The site reviewers visually observed that the area was largely free of chips, potholes or other noticeable surface-level issues.
  - » It should be noted that this walk-through was not done as a formal visual condition appraisal or site inspection, merely as a high-level visual walk-through to identify any areas for improvement for Transportation & Parking Services.





# SYSTEM EVALUATION

## TASK MEMO



### CRITERIA 1.22: CURBS AND STALL DEMARCATIONS ARE VISIBLE TO THE PARKER.

» Reviewer Comments:

- » In large part, curb and stall markings were in varying levels of repair throughout the facility. Stall markings were clear in some areas and faded in others, especially in high-traffic areas. As mentioned in Criterion 1.1, there were some areas, especially near the entrance on Paul Hardin Drive where some curb and walking surface paint was fading and/or in need of a refresh. It was noted that the curbs around the stairs/elevators were painted.



### CRITERIA 1.23: PARKING AND PEDESTRIAN AREAS ARE FREE FROM SNOW/ICE/WATER AND OTHER OBSTRUCTIONS.

» Reviewer Comments:

- » Parking and pedestrian areas were observed to be free from water and other obstructions during the field review on July 13, 2016. As this walk-through was conducted during the summer, the team cannot make any comment on areas where snow and/or ice might be present during winter months.

### CRITERIA 1.24: SIGN POSTS ARE STRAIGHT AND APPROPRIATELY PLACED.

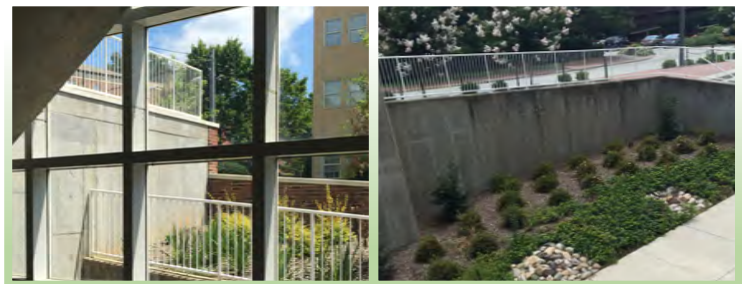
» Reviewer Comments:

- » This criterion is not applicable to this facility as all observed signage was posted on walls, hung from the deck ceiling and or placed directly on machinery.

### CRITERIA 1.25: LANDSCAPED EDGES, BOULEVARDS, GRASSY AREAS ARE WELL MAINTAINED.

» Reviewer Comments:

- » All landscaped areas were observed to be regularly maintained.





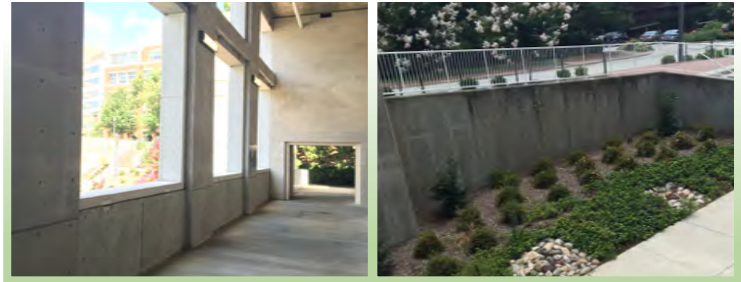
# SYSTEM EVALUATION

## TASK MEMO



### CRITERIA 1.26: LAYOUT AND PERIMETER EDGE TREATMENTS ALLOW EASY PEDESTRIAN ACCESS AND EGRESS.

- » Reviewer Comments:
  - » Deck layout and perimeter treatments appeared to allow adequate pedestrian access.



### CRITERIA 1.27: OVERHEAD RAILINGS, PIPES, CONDUITS, AND OTHER LEVEL SURFACES ARE FREE FROM DUST, DIRT, SOOT, BIRD DROPPINGS, OR OTHER SUBSTANCES.

- » Reviewer Comments:
  - » Overhead railings, pipes, conduits, and other level surfaces appeared to be free from dust, dirt, soot, bird droppings, or other substances during the field review on July 13, 2016.

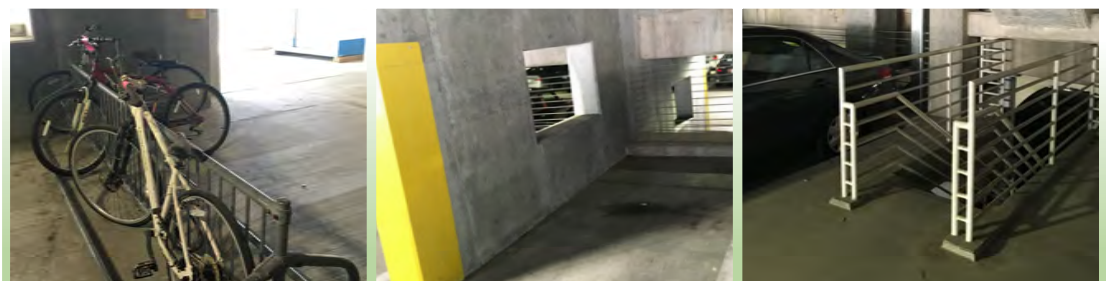


### CRITERIA 1.28: CONCRETE SPALLS OR DELAMINATIONS HAVE BEEN REPAIRED AND PATCHED.

- » Reviewer Comments:
  - » Due to the time-limited nature of this review, all areas with potential for concrete spalling or areas of delamination were not reviewed. This activity should be conducted as part of an annual visual assessment by a licensed structural engineer.

### CRITERIA 1.29: SURFACES ARE FREE FROM SALT AND WATER STAINS.

- » Reviewer Comments:
  - » No salt or water stains were observed during the visual review on July 13, 2016. Other stains, likely from normal parking deck “wear and tear” were observed.





# SYSTEM EVALUATION

## TASK MEMO



### CRITERIA 1.30: MEMBRANES ARE INTACT AND COMPLETE.

- » Reviewer Comments:
  - » Due to the time-limited nature of this review, all deck membranes were not reviewed. This activity should be conducted as part of an annual visual assessment by a licensed structural engineer.

### CRITERIA 1.31: EXPANSION JOINTS ARE SECURE.

- » Reviewer Comments:
  - » It was noted that the expansion joints observed were generally in fair to good condition.
  - » Due to the time-limited nature of this review, all expansion joints were not reviewed. This activity should be conducted as part of an annual visual assessment by a licensed structural engineer.

### CRITERIA 1.32: DECKS ARE NOT LEAKING.

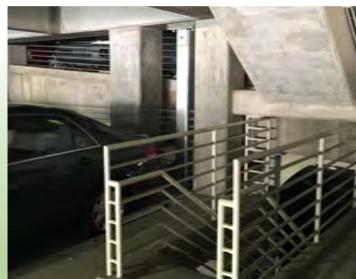
- » Reviewer Comments:
  - » No leaks / crack leaching / etc. was observed, although it was not raining at the time of the visit so assessment of leaking at joints could not be reviewed.
  - » Due to the time-limited nature of this review, all opportunities for deck leakage were not reviewed. This activity should be conducted as part of an annual visual assessment by a licensed structural engineer.

### CRITERIA 1.33: HEATING OR CLIMATE CONTROL PROCESSES, IF FITTED, ARE FUNCTIONING AND IN PLACE.

- » Reviewer Comments:
  - » No heating and/or climate control processes were observed during the visual review. Stairwells were all open-air.

### CRITERIA 1.34: OUTSIDE PEDESTRIAN DOORS ARE GLAZED (HAS GLASS PANES OR PANELS FOR VISIBILITY).

- » Reviewer Comments:
  - » Reviewers observed that stairwells, walkways and other access areas for pedestrians were open-air and/or enclosed with clear, two-way glass. Door areas were observed to be unobstructed and open-air as well.



### CRITERIA 1.35: FIELD TEST OF PAYMENT SYSTEM FUNCTIONS PROPERLY.

- » Reviewer Comments:
  - » Gate access system appeared to be online and functioning correctly. As this facility is permit parking only, no pay-in-lane option is available.







# SYSTEM EVALUATION

## TASK MEMO



### CRITERIA 1.36: WHERE CASH CHANGE IS AVAILABLE, CORRECT CHANGE IS RETURNED.

- » Reviewer Comments:
  - » This criterion is not applicable for this facility.

### CRITERIA 1.37: MACHINE ISSUES RECEIPTS THAT INCLUDE THE NAME OF THE PARKING VENDOR, DATE TIME LIMITS AND FEES ASSOCIATED WITH THE PURCHASE.

- » Reviewer Comments:
  - » This criterion is not applicable for this facility as it is permit parking only.



### CRITERIA 1.38: INFORMATION ON WHAT TO DO IF THE MACHINE IS OUT OF SERVICE IS CLEARLY COMMUNICATED.

- » Reviewer Comments:
  - » A working intercom was observed on the pay-in-lane machine, however there was not specific instructions on what to do in the case of a machine malfunction.

### CRITERIA 1.39: FIELD TRANSACTIONS HAVE CREDIT CARD OR OTHER REMOTE PAYMENT CAPABILITY.

- » Reviewer Comments:
  - » This criterion is not applicable for this facility as it is permit parking only.

### CRITERIA 1.40: FIELD BOOTH FACILITIES ARE NEATLY MAINTAINED AND PAINTED.

- » Reviewer Comments:
  - » There is an old attendant booth located immediately inside the deck on the right hand side. The booth is out of commission, and old, faded signage still hangs in the window and the booth looks to be in disrepair and potentially attractive area for vandals.



### CRITERIA 1.41: WHERE A PARCS IS USED, MACHINES ARE OPERATIONAL, TIDY AND IN GOOD ORDER.

- » Reviewer Comments:
  - » This criterion is not applicable for this facility.

### CRITERIA 1.42: WHERE A PARCS OR METERING IS USED, THERE ARE ADDITIONAL MACHINES FOR REDUNDANCY (IN CASE ONE GOES OFF LINE).

- » Reviewer Comments:
  - » This criterion is not applicable for this facility.



### CRITERIA 1.43: SPEED CONTROL DEVICES, IF FITTED, ARE FUNCTIONAL AND EFFECTIVE.

- » Reviewer Comments:
  - » This criterion is not applicable for this facility.

### Craige Deck Visual Review: Conclusion

Maintaining clean, safe and attractive facilities is a core function of any parking program and has a significant impact on the perception of the program and the campus community it serves.

The Craige Deck recently underwent a major renovation project to vertically-expand the garage and repair identified deficiencies. Overall, the reviewers found the Craige Deck to be clean, well-maintained and designed to maximize natural lighting. The investment in new wayfinding signage also provides an extra level of customer service. During the walk-through, the reviewers did not see any significant issues, mainly just moderate cosmetic items that, with a small investment in both time and resources, could make a noticeable difference; most notably the "first thirty feet".

A strategy of addressing the "First 30 Feet" is a specific way to show immediate improvement to a facility. The first thirty feet of a parking garage entry point is the area where positive (or negative!) first impressions are created. Signage should be clear, clutter-free, legible from a moving vehicle and should share only the most relevant information for parkers (i.e. is the facility open to the public, what permits are accepted and if there is a cost). All other information (rules, regulations and disclaimers should be posted in a visible location but not on the entry point to a facility. Additionally, painting of curb areas in the drive lane and around pedestrian walkways and/or bicycle parking areas should be kept fresh and vibrant. Additionally, the inclusion of a simple "Welcome!" and "Thank You!" signs at entrance and exit points can add a more welcoming feel to a facility.

