

Part I: Scope

Background

The North Carolina State University Transportation Department (NCSU Transportation) is responsible for all aspects of the management of nearly 19,000 parking spaces and the 71-system-mile (32.2 directional route miles) Wolfline transit system. NCSU Transportation is a financially self-sustaining department of the university. Parking fees generate revenues that are used by the department to improve NCSU parking facilities. A portion of the total parking fees collected at NCSU is used to fund approximately %20 of the Wolfline transit system.

Purpose and Need

NCSU Transportation is participating in the update of the NCSU Physical Master Plan at this time. In master planning discussions of the relationship of parking to transit at NCSU, there is keen interest in reducing parking spaces and increasing transit service. The NCSU Transportation Department needs to assess the financial impacts of reducing parking (major revenue generator) and increasing transit (major expense) before plans are implemented that are not fiscally sustainable.

Cost

Study will be performed with no additional funding utilizing existing staff and resources available.

Objectives

This study is intended to update the work previously performed and documented in the 2001 NC State Travel Demand Study performed by Wilbur Smith Associates. In the 2001 Travel Demand Study parking demand and supply was assessed by NCSU planning precinct. Assumptions included in the 2001 study need to be updated (e.g., TTA Rail Station will be completed by 2010) to reflect current conditions and to estimate future demand with new assumptions.

Another objective of the 2006 Precinct Parking Study (PPS) is to develop parking, transit and fiscal models that allow NCSU Transportation to assess the impacts of parking space reductions by precinct. Impacts include: spillover of current parking into adjacent precincts, increasing transit service, increased Park& Ride lot demand, loss of parking revenues and increases in transit costs.

The major deliverables from the Study include:

- Study Proposal
- Summary of current utilization (Fall Semester 2006)
- Precinct Parking Spillover Model (Excel Spreadsheet format)
- Parking-Transit Financial Impacts Model (Excel Spreadsheet format)
- Parking Spaces Needed by Precinct considering current utilization and projected future needs.
- Wolfline Service Needs by Precinct considering current utilization and projected future needs.
- 2006 Precinct Parking Study Report showing the interrelationships between bus utilization and parking and considering corridor related Park and Ride Alternatives.

- 2006 Precinct Parking Study Presentation

Study Team

Tasks will be accomplished by the following NCSU Transportation Staff in addition to other assigned duties: Slade McCalip, Study Manager, Timothy Tresohlavy, Parking Planner, and Adena Messinger, Transit Planner.

Task Summaries

1. Study Proposal

The purpose of this proposal is to a) document the tasks to be completed as a part of the Precinct Parking Study, and b) identify the major milestones and deliverables involved. The study team and study management strategy are defined, as well as the steering committee and the resource assumptions used that will constrain the study process.

2. Research/Data Collection

Previous parking studies and plans developed for NC State will be gathered, reviewed and analyzed for key points. It is anticipated that two previous sources (*NC State Travel Demand Study, 2001* and the *Parking Task Force Recommendations, 2002*) and one new source (*Peer University Benchmarking Study, 2006*) will be key references for this study.

Parking lot usage will be determined by counting cars parking in all the parking lots and decks on campus during peak usage times. An internet based travel behavior survey will be performed to determine where people are coming from and going to after parking in the lots. Data will be collected on Tuesday\Wednesday\Thursday during the morning hours of 10:30 to 12:00 noon. This is the peak period for maximum occupancy per the Transportation Parking Enforcement Staff.

3. Spreadsheet Model Development

Spreadsheets will be developed to determine the spillover effect of removing parking by precinct and the cost of removing parking and increasing transit service by precinct. For examples of the spreadsheets that will be developed, go to page A-4 of the *NC State Travel Demand Study*.

4. Assess Existing Parking/Transit Systems by Precinct

The information generated by an analysis of the parking demand and supply along with the travel demand survey and the PUBS study will enable staff to develop a comprehensive and comparative analysis by precinct as to how NCSU parking & transit compares to select peer universities.

5. Estimate Future (2012) Parking/Transit Demand Impacts by Precinct

Projections will be made to the year 2012 by precinct by scenarios developed by staff and approved the steering committee. An example of such a scenario would be the application of the proposed formula from the 2002 Parking Task Force “sum of resident spaces + commuting spaces + employee spaces = Total Permitted Parking Spaces”. Other “what if” scenarios will be developed cooperatively with the Steering Committee to determine the optimal parking and transit policies for NCSU.

6. Final Report and Presentation

The study team will incorporate steering committee comments into a final report and prepare a presentation based on the report. The final report and presentation shall be of a quality appropriate for dissemination to a wider NCSU audience. The study must propose an action plan delineating the steps associated with right sizing future parking development in each precinct. The study should consider the best options for public\private development options for CC & CBC.

Part II: Schedule

Initiation

The study will begin on September 5, 2006 with an anticipated completion date of November 6, 2006. The study is divided into six tasks, as described in the scope. Milestones on the critical path of the schedule are shown in Table 1.

Table 1. Milestones on the Critical Path

Milestone	Date
Approval of Study proposal	September 21, 2006
Models Built and Data Collected	October 31, 2006
Existing Conditions Assessment	October 20, 2006
Estimate Future Demand Impacts	October 27, 2006
2006 PP STUDY Draft Report	November15, 2006

Communications Plan

Internal communications will include a weekly progress meeting within the study team. The primary purpose of these meetings will be to discuss technical or administrative problems and review work progress. Communications with steering committee members (Dave Rainer, Tom Kendig, Greg Cain, and Ronnie Wright) will consist of meetings scheduled around important study milestones. A summary of these meetings and approximate dates can be found on Table 2.

Table 2. Steering Committee Input (Meeting or Written Comments)

Meeting Agenda	Week Of:
Comment on Scope & Schedule	September 21
Review Draft Model and Preliminary Data	November 6
Review Preliminary Existing Conditions Assessment	November 6
Review Preliminary Future Demand Impacts	November 6
Review Comments on Draft Report	November 20
Presentation to Building & Property Committee	TBD

Assumptions

The schedule as described in this proposal is subject to a number of internal and external influences, many of which can neither be projected nor controlled by the study manager and\or study team. The schedule for this study is based on the following assumptions:

2006 Precinct Parking Study Proposal

- Study team has availability to collect and then analyze data for the study in addition to their regular duties.
- Data collected is representative of the parking and travel behavior at NCSU.
- Steering Committee input and review comments requested are received in a timely manner.