

January 31, 2007

Mr. William Rasnick  
Associate Vice President  
East Tennessee State University  
P.O. Box 70653  
Johnson City, Tennessee 37614

Re: Preliminary Quillen College of Medicine Parking Study – Summary Letter Report (Final)

Dear Mr. Rasnick,

In September 2006, East Tennessee State University (ETSU) retained **Carl Walker, Inc. (Carl Walker)** to provide the University with a preliminary analysis of current and future parking conditions at the Quillen College of Medicine (COM). This analysis included a limited review of existing conditions, a brief review of parking management at peer institutions, a projection of future parking conditions, as well as a preliminary discussion of user allocation and parking management strategies. Parking system data was provided by the COM, and further direction and input was provided by an advisory project team of University and COM officials.

The scope of services for this project was set as follows:

- Review and evaluate existing campus parking management policies and user group allocations. This review included a comparison of parking policies with a select group of peer institutions.
- Review projected program changes at the COM and determine the impacts to the parking system. This review included a discussion of strategies to meet future parking needs.
- Conduct a parking field review and an on-site parking planning workshop/presentation (completed in October, 2006).
- Provide a written report providing possible parking supply, management, and allocation alternatives.
- Conduct a follow-up meeting and provide a presentation of draft options/recommendations.

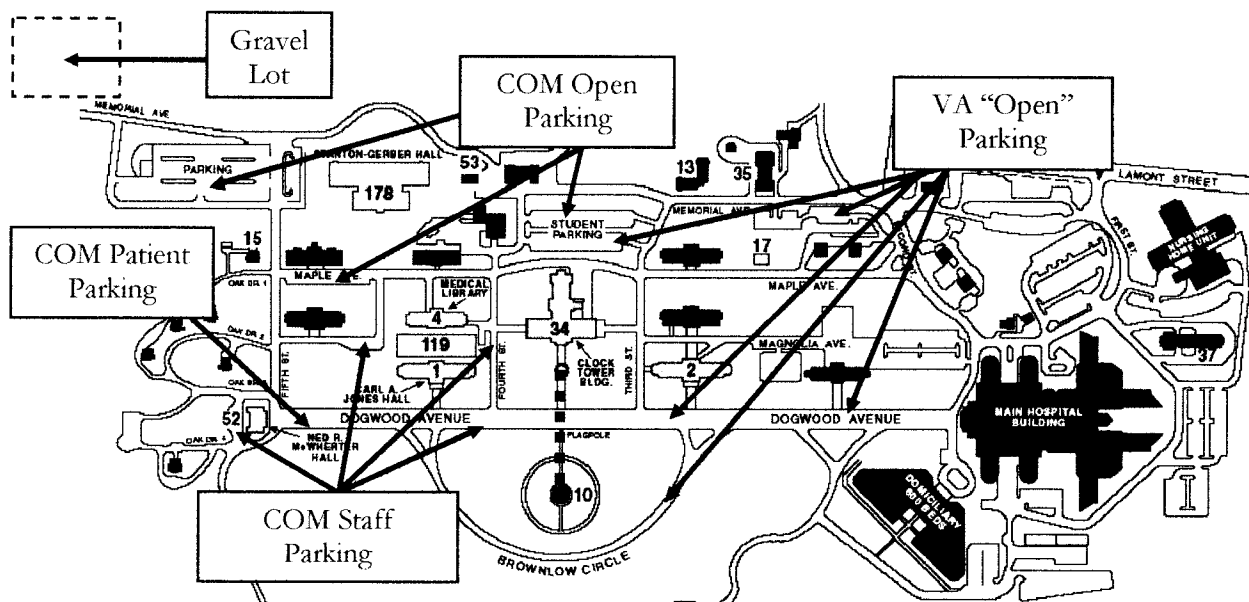
This report, along with the scheduled study presentation in December, represents the final deliverables for this project.

**Review of Current Conditions**

The Quillen College of Medicine is located north of the ETSU main campus, on the James H. Quillen VA Medical Center campus. The total parking supply of the VA Medical Center is approximately 2,418 parking spaces, but a large majority of the spaces are reserved for VA center staff and patients. Of the total campus parking supply, approximately 817 parking spaces are dedicated to the COM. COM staff and students can also park in designated VA “Open” parking lots, although the COM community is encouraged to parking in designated COM parking lots. The dedicated parking spaces for the COM are allocated as follows:

- COM Staff and Patients: 134 spaces
- COM Open: 525 spaces (although staff does cross-park in student designated areas)
- Gravel Lot (Overflow Parking): 158 spaces

The parking located in the Gravel Lot is currently being used by staff from the nearby Johnson City Medical Center, but could be designated for use by COM staff and/or students. The designated COM parking areas are illustrated in the following graphic.



The parking spaces located on Dogwood Avenue (approximately 234 spaces) are designated as both COM Staff and Open parking, with about 92 parking spaces designated for COM Staff. Visitors to the COM would be allowed to parking in the Open parking spaces noted in the previous graphic.

The parking on campus is managed and enforced by the VA Medical Center. The VA Medical Center issues parking permits for campus parking lots, and provides minimal parking enforcement in COM designated parking facilities. There are currently not other controls in any COM parking facilities (e.g.

control gates, access card readers, etc.), and COM parking is provided at no charge. There is currently no cross-parking arrangement between the ETSU main campus and the COM.

While detailed parking occupancy counts were not available for this report, it does appear that the existing parking supply is fairly well utilized. According to the COM, there are approximately 200 parking spaces available during the peak period of parking demand (not including the Gravel Lot). Most of these parking spaces are located in student and open parking areas, especially the parking lot located to the west of Stanton Gerber Hall. The turnover of parking spaces was reported as low, as most students and staff members are parked throughout the day. However, it is important to note that faculty/staff members are using a large portion of the Open parking on Dogwood Avenue and Brownlow Circle. According to the COM, over half of the Open parking on Dogwood Avenue (approximately 75 spaces) and most of the available parking on Brownlow Circle (69 spaces) is being used primarily by COM faculty and staff.

When a parking area's occupancy reaches 85-90% of the total capacity, depending on the user group, the area becomes effectively full. When parking lot occupancy exceeds effective capacity, users become frustrated as it becomes increasingly difficult to find an available parking space. Users will begin to either park illegally in the lot or leave the lot altogether and search for parking elsewhere. An acceptable effective fill percentage for parking in a university environment that has fairly open parking is 90%. This 10% "cushion" of spaces is used to accommodate spaces lost temporarily due to construction, improper or illegal parking, and provides for shorter searches for available parking.

Using a 90% effective supply adjustment, the current effective COM parking supply would be 593 spaces (not including the parking spaces located in the Gravel Lot). Assuming 200 parking spaces are available during the peak period of parking, approximately 459 parking spaces would be occupied at peak (not including the Gravel Lot). This would leave an effective surplus of 134 parking spaces (the effective supply minus the parking occupied). These surplus parking spaces would be available to support future parking demands, as well as parking demands from special events. This assumes that the Open parking on Dogwood Avenue and Brownlow Circle will remain available to COM students and staff.

In addition to typical daily parking needs, special event parking is sometimes necessary for events held in the Carnegie Library or the Memorial Hall Theater. Parking for staff and visitors during events is generally provided in a parking lot north of the library (approximately 59 spaces) or in various lots surrounding the facilities. Most of the parking facilities surrounding the buildings are currently designated as VA "Open" parking lots, meaning the spaces are available to any users on a first-come-first-serve basis. According to the COM, most events are held during evenings and weekends, and few parking difficulties have been noted. However, parking can sometimes become difficult for event staff during daytime rehearsals. Therefore, additional coordination will be necessary between the department sponsoring the event, the COM, and the VA to ensure sufficient parking is available.

### **Projection of Future Conditions**

There are currently no development plans or projections in student/staff growth for existing COM programs that will significantly impact future parking demands. However, the University is preparing to open the College of Pharmacy on the COM campus. The University will be accepting the first class of 70 students in January 2007.

The new College of Pharmacy is currently projected to add 46 staff members and 210 new students. This would represent a total of 256 potential new parkers at the COM. While not everyone will bring a vehicle to campus, the COM is anticipating that a high proportion of the new students/staff members will need parking. Assuming 90% of the new students and staff members will be parked at the peak period of parking demand, as many as 231 parking spaces would be required to support the parking generated by the College of Pharmacy.

As stated previously, the COM currently has an approximate parking surplus of 134 parking spaces, not including the parking in the Gravel Lot. If the COM decided to reclaim the Gravel Lot, and improve the parking surface, 158 additional parking spaces would be available to meet new COM demands. Therefore, a total of 292 parking spaces could be available to meet the needs generated by the College of Pharmacy. Sufficient parking appears to be available on campus to meet future needs, and most of the parking on campus currently appears to be within acceptable walking distances of campus buildings. Again, this assumes that the Open parking on Dogwood Avenue and Brownlow Circle will remain available to the COM community. If these spaces are lost, additional parking will need to be constructed.

It must be stressed that this preliminary parking supply and demand analysis is based on information provided by the COM, and parking occupancy counts have not yet been conducted. It is recommended that the University (or specifically the COM) conduct parking inventory and occupancy counts prior to deciding how to address future parking needs to ensure the accuracy of parking projections.

### **Peer Institution Review**

Most institutions designate their parking areas by priority, with faculty and administration first, staff second (if not included with faculty), and students last. In similar institutions, students normally have more total parking spaces available to them, but generally at greater distances from the campus core than other campus constituents. **Carl Walker** conducted a brief review of the following peer schools of medicine with respect to permit options, parking allocation, and management: Marshall University, the University of South Carolina, East Carolina University, and Wright State University.

- **Marshall University**

Classes for the Joan C. Edwards School of Medicine are taught at the university's main campus and at facilities located adjacent to a VA Medical Center. Prior to September 2006, classes were only taught at the VA Medical Center. With respect to significant parking allocation and management strategies, Marshall currently manages their school of medicine parking system as follows:

- Medical students attending classes on the main campus follow the same parking rules as other Marshall students. Students attending classes at the VA Medical Center, or other nearby medical facilities, park at no charge.
- Faculty, staff, and students parking on the main campus pay \$135 to \$235 per year for parking. As stated previously, classes have just started being taught at the main campus in September 2006.

- The Marshall University Parking Department provides parking enforcement on the main campus, and the VA Medical Center enforces parking on their property.
  - Visitor parking at VA Medical Center and the Marshall University Medical Center is provided at no charge. Visitor parking on the main campus consist of temporary parking permits (\$2.00 per day) and parking meters.
  - There is currently no shuttle service between the main campus and any other locations where medical students attend classes.
- **University of South Carolina (USC)**

The USC School of Medicine is located adjacent to the WBJ Dorn VA Hospital. The parking spaces located closest to the facilities are generally reserved for faculty and staff. The remaining parking supply is allocated to parking for students and staff.

With respect to significant parking allocation and management strategies, the University of South Carolina currently manages their parking system as follows:

- The parking provided for the school is segregated between faculty/staff and students.
  - The parking provided is free to all user groups. The parking provided on the main USC campus is also provided at no charge. Faculty/staff members and students needing to park at the main campus must register their vehicles with the USC Parking Department.
  - Parking enforcement for the medical school is provided by the VA Medical Center.
  - School of Medicine visitor parking is provided at no charge.
  - There is currently no shuttle service between the main campus and any other locations where medical students attend classes.
- **East Carolina University (ECU)**

Parking for the ECU medical school is managed as part of the main campus. Medical school parking is designated by zones, and some tiered parking options are provided (primarily to faculty/staff members). Student parking is provided in perimeter parking areas, with the close parking reserved for campus staff. Some parking permits are interchangeable between their main campus and their medical campus.

With respect to significant parking allocation and management strategies, ECU currently manages their parking system as follows:

- Parking prices are based on user groups, and the convenience of parking purchased. Student parking prices range from \$72 to \$144, and faculty/staff parking permits range from \$144 to \$288 per year.
  - Close parking is reserved for faculty/staff, although they can also park in other designated areas.
  - Student parking is provided in perimeter parking areas.
  - Parking enforcement is provided by the main campus parking department.
  - A campus shuttle is provided.
- **Wright State University (WSU)**

Classes for the WSU Boonshoft School of Medicine are taught on the main campus of the university. Parking for medical school staff members and students is provided in university parking lots. In general, parking lots located close to the core of campus are designated for faculty and staff members, while student parking is located more on the campus perimeter (although some student parking is provided near the campus core).

With respect to significant parking allocation and management strategies, WSU currently manages their parking system as follows:

- The price for a student parking permit is currently \$85 per year, and the price for faculty/staff parking is \$110. Medical students spend their first two years on campus, then study elsewhere. There may be charges for parking at other locations where faculty/staff and students attend classes.
- Visitor parking on the main campus is provided at a charge of \$1.00 per hour up to a \$5.00 maximum. Visitors can also purchase a daily parking permit for \$2.00 per day.
- Parking enforcement is provided by the university, and enforcement is fairly strict.
- Shuttles are provided from remote parking lots to the campus core, and mass transit is available for students that study at other locations.

### **Alternatives for Meeting Future Parking Demands**

If the COM decides to maintain a level of parking consistent with existing levels, the COM will need to construct additional parking spaces. As stated previously, these spaces could be provided in the existing Gravel Lot. Assuming the necessary parking is provided by improving the existing Gravel Lot, the following estimated expenses would be incurred (figures shown in 2006 dollars):

- 158 surface parking spaces constructed for \$2,000 per space (may be less depending on the condition of the existing lot).
  - With soft costs included (e.g. design fees, environmental studies, soil reports, inspections, legal services, financing costs, etc.) the development cost per space would be approximately \$2,800 per space (or approximately \$450,000).
  - Assuming financing at 6.0% for 30 years, the annual debt service for the new surface parking would be approximately \$31,000.
  - If this cost were distributed through 90% of the projected amount of potential users (approximately 240 students, as many as 400 faculty/staff, approximately 175 Physical Therapy and Audiology faculty, staff and students, and the 256 new College of Pharmacy users), the debt service burden per user would be approximately \$29 per year.

The actual cost to provide campus parking per user would also include operating and management expenses. The cost to operate and manage the parking system will depend on a number of variables, such as the type of parking provided, services provided, staffing levels, etc. However, based on other university parking systems reviewed by *Carl Walker* that provide only surface parking, the cost to provide typical permit parking services could range from \$100 to \$200 per parking space, per year. Using an assumption of \$100 per space, per year, for parking system operations and management, the total estimated parking expense per user, per year, could reach approximately \$80. Obviously, the institution of parking permit fees could reduce the number of parking permits sold. A more detailed COM parking study, including occupancy counts, would be needed to quantify the potential impacts of instituting a parking permit fee.

On the other hand, the COM could decide to take steps to reduce parking demand. This could be accomplished through one of many methods currently used by other schools, including encouraging the use of alternative modes of transportation (e.g. vanpools, carpools, bicycles, walking, etc.) None of the peer institutions reviewed by *Carl Walker* are currently taking significant steps designed to reduce parking demand. However, reducing parking demand can also have the positive benefit of providing more space for future buildings and green space. A more detailed parking study would be needed to quantify the potential impacts of instituting a parking demand reduction strategy.

After reviewing existing parking system conditions, and projecting future parking supply and demand, these parking planning and management options are possible (in relative order of priority):

- Develop a Set of Parking System Guiding Principles
  - Guiding principles add value in two primary areas. First, the establishment of a set of approved operating guidelines helps define the role and relationships of parking within the larger organizational structure. Secondly, guiding principles can emphasize the importance of planning for parking. The parking principles should be kept short and concise, a maximum of one or two typed pages. Some of the items typically incorporated in such a

document include mission/vision, funding strategies, parking allocation strategies, departmental relationships, enforcement and maintenance responsibilities, etc.

- Conduct a More Detailed Analysis of COM Parking
  - A more detailed analysis would include parking occupancy counts, by user group, to determine how the existing parking supply is utilized. This would help define how many parking spaces are necessary for each user group.
- Consider Working with the VA Medical Center to Ensure the Future Availability of Parking on Dogwood Avenue and Brownlow Circle
  - Ensuring the future availability of parking in these two areas will reduce the likelihood of needing to construct additional parking in the future.
- Work to Better Coordinate Event Parking Needs
  - Departments coordinating special events in the library or theater should contact the COM concerning parking arrangements well in advance of the event. The COM could then make arrangements with the VA to ensure sufficient parking is provided. This could be accomplished by working with the VA to reserve sufficient parking in “Open” lots for rehearsals or other daytime demands when needed (if available). Spaces could be reserved by using temporary signage, special parking passes, and/or traffic barricades. Increased parking enforcement would also need to be provided.
- Consider Instituting a Parking Fee for Campus Parking
  - Three of the four peer institutions reviewed by *Carl Walker* currently charge for parking, as does the ETSU main campus. The average annual parking fee for the peer institutions that charge a fee was approximately \$126 for students and \$170 for faculty/staff. As the parking at the COM is currently provided at no charge, funds may not be available for fully support parking operations, management, and maintenance/construction. Similar to the main campus, the COM parking system must be self-supporting. The parking fee could be included as an access fee, similar to the main campus, or as a separate fee. If the goal is to reduce campus parking demand, the fee for parking should be separate. If a fee is charged, cross-parking for the main campus could be provided in designated Open lots.
- Consider Providing Additional Enforcement of the Designated Parking Areas.
  - The parking provided at the COM should continue to be segregated into faculty/staff and student areas. This will help ensure sufficient parking is provided to each user group, in the most appropriate areas. For example, segregated parking would provide an opportunity for faculty/staff to find parking in appropriate areas should they leave the



COM to attend a meeting. Also, segregated parking would help minimize campus traffic and frustration as users would have less opportunities to “hunt” for parking.

Generally, the most convenient parking is provided to faculty/staff and the remaining supply is made available to students. More detailed parking occupancy counts would be necessary to determine how many spaces are required for each user group.

In order for this policy to work, sufficient parking enforcement should be provided. This enforcement could be provided by the COM directly, the VA Medical Center, or as part of the enforcement provided at the main campus. Working with the main campus to provide parking enforcement could help ensure consistency in enforcement, as well as reduce potential COM enforcement expenses (when compared to providing enforcement directly).

- Consider Designating a Person or Group at the COM to be Responsible for Parking
  - The COM should consider designating one person or group as responsible for parking related issues. This department would coordinate parking maintenance, participate in planning for future parking needs, coordinate parking enforcement, provide/coordinate parking permits sales, provide assistance with planning for special event parking, deal with parking complaints/concerns, etc.

Parking management at the COM could become a joint effort with the main campus. One parking department/organization could manage parking on both campuses. Advantages to this approach could include reduced operating/management expenses, joint parking enforcement, consistencies in policies/regulations, one contact for all parking needs, and better special event coordination between campuses.

- Consider Improving the Marketing and Communication of Parking Policies
  - Improving the communication of parking policies will help guide users to appropriate parking, clear ambiguities in the parking system, explain parking system goals, and communicate parking regulations. Communication efforts could include improved signage, detailed parking maps, improved information on the COM website, incorporating parking issues in new student orientations, providing a point of contact for parking questions, etc.
- Involve the Campus Community in Parking Planning
  - Involving the campus community in the development of guiding principles and a possible campus parking master plan is critically important. All parking planning efforts should be conducted in as open a fashion as possible, with several opportunities for faculty, staff, and student input.

- Encourage the use of Alternative Modes of Transportation and Increase Related Marketing Efforts
  - Additional options could be explored relative to encouraging the use of alternative transportation. This could include carpool matching, alternative work schedules for employees (e.g. telecommuting, etc.), additional marketing/education efforts, new bicycle paths, additional bicycle racks/lockers, etc.

This report represents the final deliverable of this study. Thank you very much for providing **Carl Walker** with this opportunity to be of service. I would like to also extend a sincere thank you to you, and your staff, for all of the assistance in completing this study.

Sincerely,



Matthew Q. Inman  
Senior Planner