

**AGENDA**  
**Joint Town/University Committee**  
**Development Plan Modification Discussion**  
**Chapel Hill Town Hall**  
**August 5, 2003**

- |            |     |  |                                       |
|------------|-----|--|---------------------------------------|
| 10:00 a.m. | 1.  | Welcome and introductions                            | Mayor Foy                             |
| 10:10 a.m. | 2.  | Opening remarks                                      | Mayor Foy and<br>Chairman Williams    |
| 10:20 a.m. | 3.  | University's chilled water needs                     | Ray DuBose                            |
| 10:50 a.m. | 4.  | Discussion of chiller issues                         | Committee                             |
| 11:05 a.m. | 5.  | Cobb Deck and related transportation<br>improvements | Carolyn Elfland and<br>George Alexiou |
| 11:25 a.m. | 6.  | Discussion of transportation issues                  | Committee                             |
| 11:40 a.m. | 7.  | Cobb Deck and related community improvements         | Bruce Runberg                         |
| 11:50 a.m. | 8.  | Overview of Jackson Circle Deck                      | Bruce Runberg                         |
| 12:00 p.m. | 9.  | Public comment                                       | Community Members                     |
| 12:15 p.m. | 10. | Future Meetings                                      | Committee                             |
| 12:25 p.m. | 11. | Closing remarks                                      | Mayor Foy and<br>Chairman Williams    |
| 12:30 p.m. |     | Adjourn  |                                       |

## Overview of Student Parking

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### Eligibility Restrictions

- Freshmen are not eligible for on-campus parking. Exceptions are approved by the Dean of Students. Exceptions primarily are for students with family or military obligations.
- Commuters living within 2 miles of the Bell Tower are not eligible for on-campus parking.

### Number of Permits and Method of Assignment

- Law School – 233  
First year students are not eligible. Assigned by lottery, except for a portion of the allocation reserved by the Dean's Office for assignment through a hardship process.
- Medical School – 178  
1<sup>st</sup> and 2<sup>nd</sup> year students receive 40 permits, assigned by lottery.  
3<sup>rd</sup> and 4<sup>th</sup> year students receive 138 permits, assignment is by the Dean's Office.
- Business School – 220  
Only carpools of 3 or more eligible for permits. Dean's Office allocates permits to individual program directors who make the permit assignments.
- Undergraduate/Graduate – 1,678 on-campus, 1,130 off-campus storage  
Student Government allocates 2,464 permits among the classes, assignment is by lottery within each zone. Student Government reserves 344 permits for distribution through a hardship process administered by Student Government.
- Student Family Housing – 312  
Restricted to students living in Odum Village.
- Big Fraternity Court – 44  
Each of the 4 houses in big fraternity court is allocated 11 permits, assignment is by the president of each house.

2003-2004 Permit Distribution by Lot

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DESCRIPTION	MARRIED STUDENT	BUSINESS	FRAT COURT	LAW STUDENT	MED. III & IV STUDENT	MED. I&II STUDENT	HARDSHIP STUDENT	REGULAR STUDENT	TOTAL STUDENT
Aycock/Battle Lane	-	-	-	-	-	-	32	20	52
Business School Deck	-	220	-	-	-	-	-	-	220
Craige Deck	-	-	-	18	66	-	34	251	369
Helipad, Womens's & Childrens, Neurosciences	-	-	-	-	2	-	-	-	2
Fraternity Court	-	-	44	-	-	-	-	-	44
Ehringhaus	-	-	-	-	-	-	19	165	184
Craige/Morrison	-	-	-	-	-	-	10	27	37
Hinton James	-	-	-	-	-	-	40	202	242
Married Student Housing -	259	-	-	-	-	-	-	-	259
Married Student Housing - 2nd Car Parking	53	-	-	-	-	-	-	-	53
Cobb/Paul Green Theatre Drive	-	-	-	-	-	-	47	-	47
Park Place Lot	-	-	-	-	-	-	11	39	50
Nash Lot	-	-	-	-	-	-	9	-	9
Cardinal Deck	-	-	-	-	23	-	-	-	23
Estes Drive - Storage	-	-	-	-	-	-	18	1,112	1,130
Public Safety Building	-	-	-	-	2	-	-	-	2
Law School	-	-	-	60	-	-	-	-	60
Stadium Drive	-	-	-	-	-	-	12	-	12
Temporary Ehringhaus Field Lot	-	-	-	-	-	-	64	178	242
Boshamer	-	-	-	30	-	-	21	99	150
Manning Lot	-	-	-	-	45	40	27	371	483
Tennis Court Lots	-	-	-	125	-	-	-	-	125
<b>TOTAL</b>	<b>312</b>	<b>220</b>	<b>44</b>	<b>233</b>	<b>138</b>	<b>40</b>	<b>344</b>	<b>2,464</b>	<b>3,795</b>

**Current Special Event Use of Cobb Surface Lot**

<b>Event</b>	<b>Spaces</b>	<b>Frequency</b>
Paul Green Theatre plays	40	5 plays, Tuesday-Saturday evenings and Sunday afternoons, October-May
Football	103	6 Saturdays, September-December
Women's Soccer	40	8 home games, possibly 6-8 post season games, August-December
Men's Soccer	20	8 home games, possibly 3-4 post season games, August-December
Women's Basketball	40	16 home games, possibly 3-6 post season games, November-March
Volleyball	20	14 home games, possibly 3 post season games, August-December
Men's Lacrosse	20	9 home games, February-April
Wrestling	20	Duke and NCSU only, November-March
Miscellaneous Events	varies	Occasional use (<1 per year) for other ACC and NCAA events
Move-In/Move-Out	varies	All spaces on weekends, 40 spaces during the week, 4 times a year

**Notes:**

1. In addition to the spaces noted above as reserved for each event, except for football any remaining open spaces in the present surface lot are available on a first-come, first-serve basis after parking regulations expire at 5:00 p.m. The additional spaces in the deck may be used for special events if demand warrants, but access will be controlled and parking regulations will be enforced into the evening.
2. For men's soccer, volleyball, lacrosse, and wrestling, the spaces noted above are used for officials and operations staff, not event attendees.

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

Cobb Deck

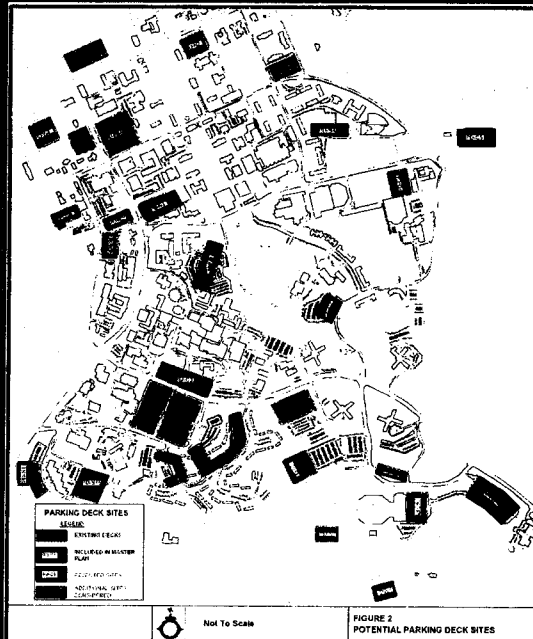
Why Here?

## Sites Evaluated

- Deck locations evaluated during Campus Master Plan process
- Campus divided into 4 regions
  - South of Manning Drive
  - Between South Road and Manning Drive
  - North of South Road, east of Columbia Street
  - North of South Road, west of Columbia Street
- 22 sites evaluated

## Deck Sites Evaluated

PARKING DECK SITES	
LEGEND	
	EXISTING DECKS
	INCLUDED IN MASTER PLAN
	REJECTED SITES
	ADDITIONAL SITES CONSIDERED



## Sites Rejected

- The IOG location was rejected because
  - IOG renovation and expansion underway, would require demolition of new IOG deck
  - Intramural field would be lost, recreation field space already seriously inadequate

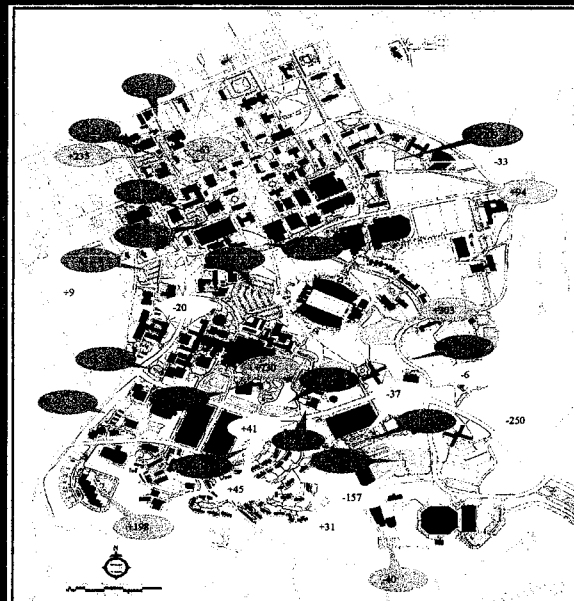
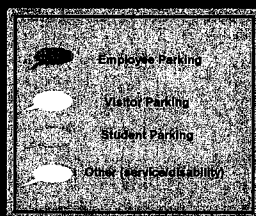
## Sites Rejected

- The Hwy 54 deck was rejected because
  - Too close to Gimghoul neighborhood
  - Too far from work sites of most permit holders

## Sites Accepted

- 4 locations north of South Road and east of South Columbia Street selected
  - Swain/Abernathy, in the Development Plan, will become the Arts Common visitor deck
  - Morehead, not in the Development Plan, is designated for a future visitor parking deck
  - Venable, in the Development Plan, will be employee parking
  - Cobb, in the Development Plan Modification, will be employee and visitor parking
- Only 2 provide permit parking

## Parking Space Impacts





## Why Cobb is Critical

- Venable Deck smaller than planned
  - 600 spaces approved in Development Plan
  - <300 are possible
  - Research space requires no vibration
- Venable Deck needed to provide some permanent capacity for lost parking west of Columbia Street
  - 300 space deck at McCauley/Pittsboro in Master Plan
  - 120 space deck under Global Education building in Development Plan

## Why Cobb is Critical

- 5,290 spaces to be constructed in decks
- 103 are incremental spaces for commuters
- (197) space loss because of Venable size reduction
  
- 465 spaces in Cobb deck are critical to employee recruitment and retention on north campus
- Without Cobb deck, parking availability drops to <40% on north campus
- Development Plan target ratio is 54%

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## Why Cobb is Critical

- Important unmet visitor parking needs in the area
  - Admissions
  - Law School
  - IOG short of spaces even after new deck
  - Paul Green Theatre
- Area around Cobb, Conner, Winston, Alexander needs better pedestrian circulation and green space

## Why Now?

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## Need to Phase Losses

- Must be in operation before loss of Swain/Abernathy lot to Arts Common
  - Without Cobb deck, north campus permit parking availability drops to <30% if no growth in employees
  - Arts Common deck for visitors, permit holder loss is permanent

## Why Now?

- Chiller plant is needed immediately
- Deck needs to be designed and constructed in conjunction with chiller plant
  - Better design
  - Less cost

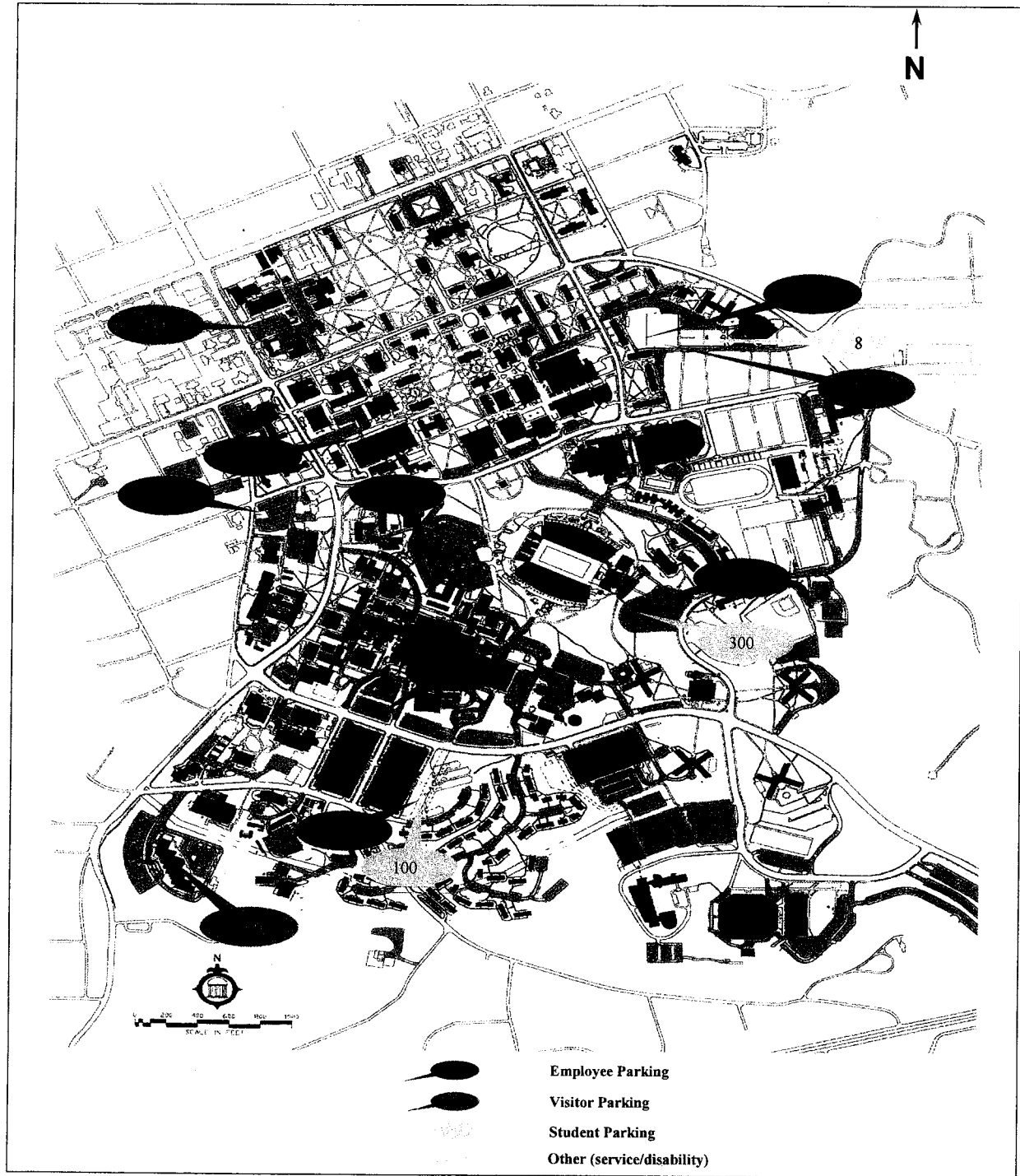
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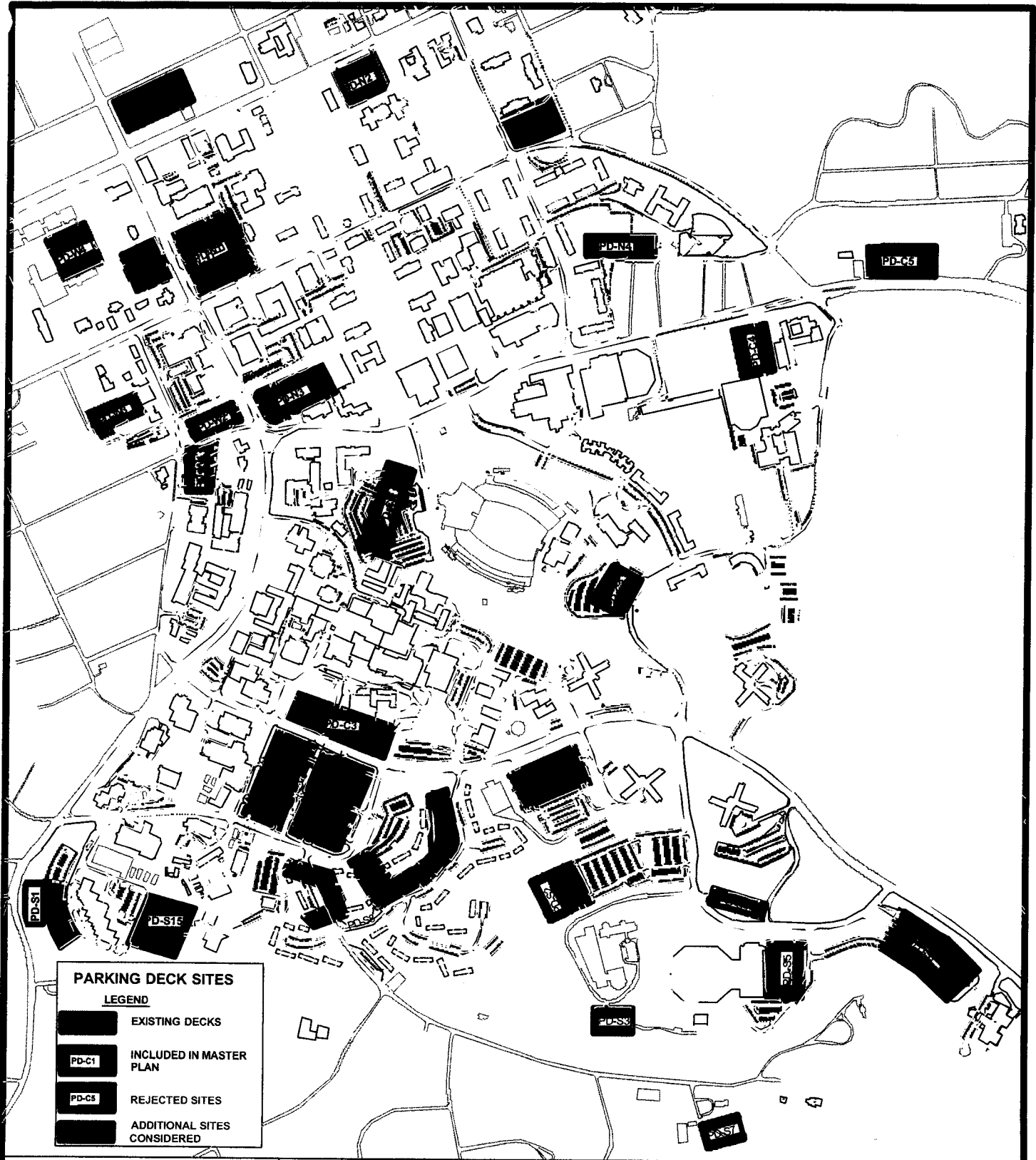
Who will park  
in Cobb Deck?

Who will park in Cobb Deck?

	Present Lot	Original Request	Present Request
Employee	324	533	465
Student	33	0	0
Service	8	8	8
Visitor	6	100	75
TOTAL	371	641	548

# Parking Space Allocations in New Decks





PARKING DECK SITES	
LEGEND	
	EXISTING DECKS
	INCLUDED IN MASTER PLAN
	REJECTED SITES
	ADDITIONAL SITES CONSIDERED



Not To Scale

FIGURE 2  
POTENTIAL PARKING DECK SITES

# Street Network

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## Intersection Impacts

- Typical measures:
  - Level-of Service (LOS)
  - Delays:
    - Intersection
    - Individual approaches
- All signals optimized for future conditions

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### Intersection LOS

Level-of-Service	Descriptions	Signalized-Intersections	Unsignalized-Intersections
A	Little or no delays	<= 10-sec.	<= 10-sec.
B	Short traffic delays	10-20-sec.	10-15-sec.
C	Average traffic delays	20-35-sec.	15-25-sec.
D	Long traffic delays	35-55-sec.	25-35-sec.
E	Very long traffic delays	55-80-sec.	35-50-sec.
F	Unacceptable delays	> 80-sec.	> 50-sec.

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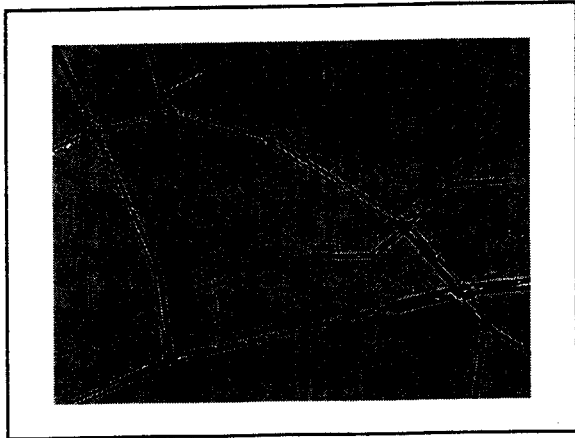
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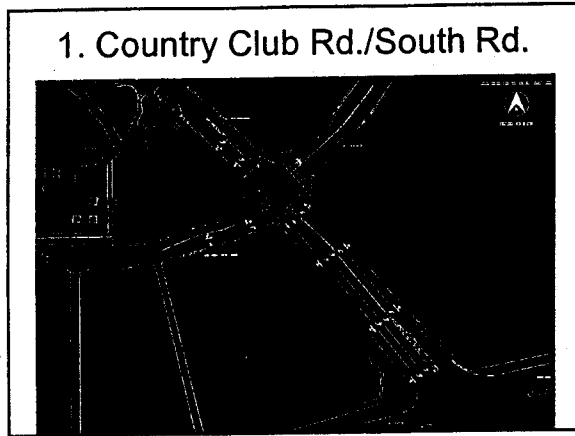
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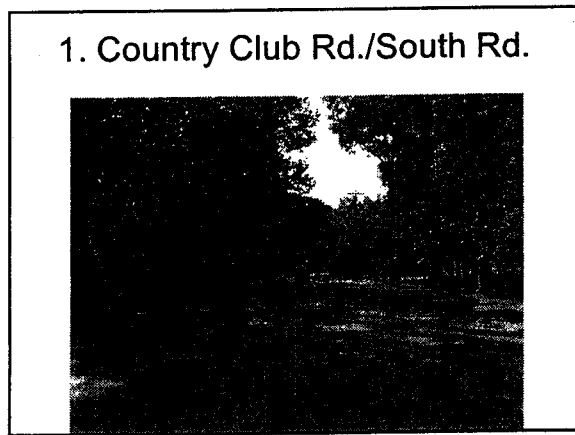
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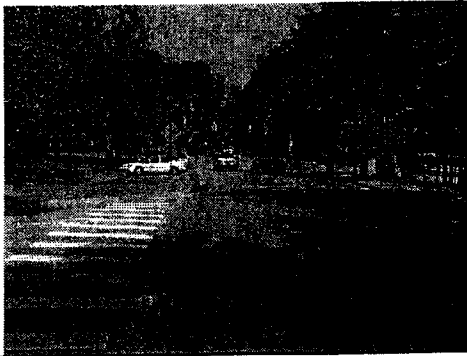
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### 1. Country Club Rd./South Rd.



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### 1. Country Club Rd./South Rd. LOS and Average Delays

	AM	PM
2003	C 20.8 secs	D* 52.9 secs
2010 - without Development Plan	C 28.3 secs	E** 79.6 secs
2010 - with D.P., no improvements	C 32.9 secs	F 92.0 secs
2010 -with improvements	D 35.8 secs	C 28.3 secs

\*E = 55-80 secs    \*\*F = >80 secs

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### 2. Raleigh St./South Rd. LOS and Average Delays

	AM	PM
2003	A 8.1 secs	B 12.3 secs
2010 - without Development Plan	A 8.6 secs	B 11.4 secs
2010 - with Development Plan	A 7.0 secs	B 11.1 secs

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### 3. Raleigh St./Country Club Rd. LOS and Average Delays

	AM	PM
2003	C 29.6 secs	C 30.6 secs
2010 - without Development Plan	C 31.2 secs	D 39.0 secs
2010 - with Development Plan	C 31.5 secs	F 112.5 secs
2010 -with improvements	C 30.0 secs	E 78.0 secs

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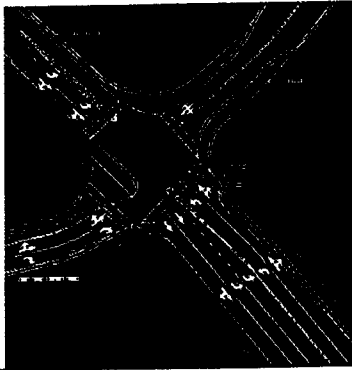
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### Country Club Rd./Gimghoul Rd.




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### 4. Country Club/Gimghoul Rd. LOS and Average Delays

	AM	PM
2003 (unsignalized)*	A 1.4 secs	A 2.4 secs
2010 - w/o D.P. (unsignalized)*	A 1.6 secs	A 3.2 secs
2010 - with D.P. (unsignalized)	A 2.4 secs	D 30.7 secs
2010 -with D.P. (signalized)	A 4.8 secs	B 11.0 secs

\*Does not consider queuing backup from South Rd.

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#### 4. Country Club/Gimghoul Rd. Gimghoul Rd. Delay

	AM	PM
2003 (unsignalized)*	15.7 secs	19.8 secs
2010 - w/o D.P. (unsignalized)*	18.1 secs	25.1 secs
2010 - with D.P. (unsignalized)	23.8 secs	31.4 secs
2010 -with D.P. (signalized)	50.2 secs	40.6 secs

\*Does not consider queuing backup from South Rd.

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#### Summary

- Reduced spaces in Cobb and smaller Venable deck will reduce impacts (not analyzed)
- Primary impact is at Raleigh/Country Club (rephasing provides LOS E)
- Additional turn lanes at Country Club/South will alleviate queues blocking Gimghoul intersection
- Signal at Gimghoul:
  - Improves pedestrian safety
  - Improves safety for traffic exiting Gimghoul Rd. and PGT Dr.

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**Sound Control Measure Comparison**  
**UNC-Greensboro McIver Chiller Plant vs. UNC-Chapel Hill Cobb Plant**

<b>Sound Control Measure</b>	<b>UNCG</b>	<b>Cobb Plant</b>
Towers Elevated	X	X
Single Sided Inlet		
Tower Inlet Louvers		X
Fans Driven By VFD's	X	X
Motor Enclosures		(1)
High Efficiency Low Speed Fans		(1)
Barrier Wall	X	X
Solid Wall Opposite Inlets		X
Barrier Wall Louvers Turned Up	X	X
Acoustical Louvers in Barrier Wall		(1)
Barrier Wall Lining		(1)
Tower Casing Treatment		(1)
Inlet Attenuators		(1)
Outlet Attenuators		(1)
Basin Mats		(1)

(1) Measure being evaluated by Design Team's Sound Consultant to determine if required to meet TCH Noise ordinance.

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**SUMMARY OF A JOINT TOWN-UNIVERSITY  
MEETING ON UNC DEVELOPMENT PLANS  
TUESDAY, AUGUST 5, 2003 AT 10:00 A.M.  
CHAPEL HILL TOWN HALL**

Mayor Kevin Foy and UNC Board of Trustees Chair Richard "Stick" Williams called the meeting to order at 10:00 a.m.

Town of Chapel Hill Committee members were Mayor Kevin Foy, Council Member Bill Strom, and Council Member Edith Wiggins. Staff members seated at the table were Town Manager Cal Horton and Town Attorney Ralph Karpinos. Other Council Members present were Mayor pro tem Pat Evans and Council Member Jim Ward. Other Town staff present were Planning Director Roger Waldon, Traffic Engineer Kumar Neppalli, and Town Clerk Joyce Smith.

University Committee members were Board of Trustees Chair Richard Williams, Board of Trustees Member Roger Perry, and Vice Chancellor for Finance and Administration Nancy Suttentfield. Also seated at the table was Associate Vice Chancellor for Campus Services Carolyn Elfland. Other University staff present were Associate Vice Chancellor for Facilities Planning and Construction Bruce Runberg, Chilled Water Services Manager Gary Tompkins, Director of Energy Services Ray DuBose, Special Assistant to the Chancellor for Local Relations Jonathan Howes, Coordinator of Local Relations Linda Convissor, and Director of Facilities Planning Anna Wu. Members of the University design team present were: George Alexiou of Martin/Alexiou/Bryson, PLLC, Brad Petterson and Jerry Schuett of Affiliated Engineers, Inc., and Rick Warren of Carter/Burgess.

• **Ray DuBose – Powerpoint Presentation on University's Chilled Water Needs**

Mayor Foy explained that Committee members would continue the prior week's discussion regarding the proposed Cobb chiller plant and then move on to a discussion of traffic and parking.

Mr. Williams noted that UNC engineer Ray DuBose had recently received the International District Energy Association's "Person of the Year" award. Mr. Williams explained that this was the highest distinction that the association confers on an individual for achievement and contributions to the district energy and combined heat and power industry.

Mr. DuBose presented an overview of the University's projected growth. He also addressed points made previously by Council Member Strom regarding the numbers for theoretical expansion capability versus the actual expansion plan. Mr. DuBose discussed UNC's district energy concept and explained the advantages of using central plants for production of steam and chilled water. In 2000, he said, UNC had received an Environmental Protection Agency (EPA) award for "superior environmental performance" because of how it operates its district energy system.

Mr. DuBose explained that UNC optimizes its energy system in response to anticipated and changing energy prices from Duke Power Company. UNC has saved \$2.5 million per year for

the five years that it has had that arrangement, he said. Mr. DuBose pointed out that the need for chilled water production occurs on the days that Duke Power's prices are highest. So, he explained, UNC does not want to use its electric centrifugal chillers on those days. Rather, he continued, they use steam absorption which is less expensive but also less efficient.

Mr. DuBose refuted a concept that he said Council Member Strom had presented regarding chilled water capacity and load growth. There had been certain fallacies in its reasoning, he said. Mr. DuBose concluded that the Cobb chiller plant must come first or UNC would be short by about 6,000 tons of chilled water. .

Mr. Williams verified that UNC would add new chillers and replace old chillers at the east plant and then upgrade the north plant so that it could continue to provide capacity during the east plant's renovation. He emphasized that these could not be done simultaneously because UNC would not be able to meet demand if they took both chillers out of service.

Council Member Wiggins verified that a graph that Mr. DuBose was displaying represented the year 2006.

Town Manager Cal Horton explained that Council Member Strom had brought a possible inconsistency to the Town's attention, but that staff members had put the numbers together. Town staff should be held responsible for any fallacious reasoning, he said, not Council Member Strom. Mr. Horton remarked that UNC's report had been outside the staff's area of engineering expertise, so staff members had applied the judgment that any citizen would apply to it. Mr. DuBose agreed to re-label those slides as staff fallacies, and re-emphasized that the Cobb plant must come first in the University's phasing plan in order to meet demand in 2006. He said that UNC's "very aggressive" schedule had assumed Town approval last June.

Mr. DuBose discussed peak versus base load. He explained the humidity factor and outlined energy conservation measures, including those proposed for new and renovated buildings. He pointed out that UNC-Chapel Hill was far ahead of other State agencies in this respect. Mr. DuBose displayed a map indicating that the need for chilled water would increase from 5,200 tons in 2001 to 9,500 tons in 2006. Pumping HP would increase from 250 to 1,400, he said. Mr. DuBose stated that having a chiller on the Cobb site would minimize risk due to pipe failure, would provide capacity during replacement of existing chillers, and would save an expected \$11-14 million in initial expenditures and about \$140,000 in operating cost per year.

- **Discussion by Committee**

Mr. Williams asked if UNC had a desired reserve capacity for chilled water. Mr. DuBose replied that the University would like to have about 10% reserved capacity for backup when they lose a chiller.

Council Member Wiggins asked for copies of Mr. DuBose's slide presentation, including the color graphs.

2-23

Mr. Perry asked if there were safety or other benefits, other than pumping, to having widely dispersed plants and looped piping. Mr. DuBose replied that overall efficiency would be improved because the system would not have to pump water so far. This would save \$140,000 per year, he said. Mr. DuBose noted that the farther water is pumped the more likely it will be to leak and interrupt service. So having the plant in the vicinity of the load increases the reliability of service, he said.

Council Member Wiggins asked Mr. DuBose to restate the reason why UNC preferred the Cobb site to the surface lot on Highway 54. Mr. DuBose explained that the Cobb site was farther away from the Gimghoul neighborhood, noting that some houses were literally next door to the Highway 54 lot.

Council Member Wiggins inquired about noise mitigation. Ms. Elfland explained that because the Gimghoul neighborhood is higher than the Highway 54 lot, noise mitigation would be more difficult at that location.

Council Member Strom proposed that the Committee continue to ask questions at the next meeting after having the opportunity to view the slides and discuss them with Town staff. Mr. DuBose asked to participate in those discussions in order to present his report in more detail. Council Member Strom explained that he had merely meant to carry it over to the next meeting as an agenda item, but noted that UNC would have an opportunity afterward to make points of clarification.

Mr. Perry suggested, however, that involving Town and University staffs in a combined session to understand this and to reach some consensus would be beneficial. Council Member Strom agreed, explaining that he was merely asking for a brief meeting between Council and staff for the Council to digest what the staff was coming back with.

Mayor Foy suggested continuing discussions regarding the chiller today and agreeing to have an agenda item at the next meeting reserved for chiller discussion. He recommended that both staffs also engage in an exchange of information. Committee members agreed with that suggestion.

Council Member Strom asked if UNC could imply or measure the additional peak capacity that the thermal energy storage itself imports into the system. And, he asked, do the conveyance improvements add some peak capacity to the system that did not appear on the bar graphs. Council Member Strom described these as parts of a formula that he would like to understand. Mr. DuBose replied that there were two components of a thermal energy system: the tank and the chillers. The tank is not considered firm capacity, he said, but the chillers are. Mr. DuBose explained that there was no piping associated with thermal energy storage other than the connecting piping.

Council Member Strom clarified that he had been referring to the system conveyance improvements that are in the plan. Mr. DuBose explained that a number of system upgrades had been planned, such as a walkable tunnel on the south part of campus to bring additional chilled water capacity from the thermal energy storage into the system. This will have the capacity that

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the University needs to inject the chilled water into the entire system, he said. Mr. DuBose stated that there were no planned improvements to upgrade the piping system from that area all the way to the northern campus in order to transfer capacity there.

Council Member Strom asked how long it takes to change out a chiller. Mr. DuBose replied that the planned upgrades were twofold: to add capacity in the east chiller plant, and to replace most of the chillers in the north plant and the older chillers in the east plant. Accomplishing this would take more than nine months, he said, noting that it would not be possible to make these replacements during the long cooling season. In response to a comment from someone in the audience, Mr. DuBose noted that replacing chillers in the north and east campus would also involved reconfiguring the piping and pumping systems and the cooling towers outside the plants.

Council Member Strom referred to an article about chiller plant/parking deck combinations that UNC had distributed at the last meeting. He asked for more information on the plume described in that article and on issues associated with siting that plume next to an historic cemetery. Mr. DuBose introduced the Cobb chiller plant designer, Brad Petterson of Affiliated Engineers, to answer the question. Mr. Petterson explained that the plume is the cloud that forms when it is cool outside and the water inside the tower is warm. The chemicals used are typically inert and do not damage surrounding surfaces, he said. Mr. Petterson described the plan to elevate the tower so that the plume would be above normal sight lines and to install high efficiency drip eliminators to remove water precipitation. Mr. Petterson expressed certainty that the chemicals would have no impact on the historical grave markers and the local environment.

Mayor Foy referred to a map showing the proposed chilled water distribution corridors and asked for further clarification of the connections being made. He said that it was clear from the map that UNC was trying to create a circle. Mr. DuBose replied that the district concept suggests looping the piping around the campus to serve loads from different directions. Then if there were a leak, he said, the University could isolate it and continue to serve loads from other directions. Mr. DuBose added that piping would have to be installed around the Cobb plant to connect that in a way that would allow such redundancy in the piping system. Mayor Foy determined from Mr. DuBose that UNC was currently installing a domestic water line on Raleigh Street.

Mr. Williams inquired about the slide which showed that if certain conditions were not in place there would be a gap in capacity in 2004 and little or no reserved capacity in 2005. He asked if this was the slide that UNC would use to respond to his earlier question about reserved capacity. Mr. DuBose replied that they could use that slide, noting that the level of "redundant" capacity designated as reserve was for UNC's own comfort. If the University lost a chiller they would have enough capacity to serve their critical loads, he said. Mr. DuBose stated that 4,000 tons was reasonable and would allow the University to operate a reliable system.

Mr. Perry stated that slide actually showed 100% of capacity rather than the 90% of capacity that Mr. DuBose had deemed as optimum. "So if you had to utilize all of that, you'd be operating in a risky situation," Mr. Perry said. Mr. DuBose replied that UNC wanted to operate the entire system at 90%, which would give some reserve capacity in the units that were in service.



2-25

Council Member Strom asked for clarification of a slide showing base versus peak demand, and asked if there was a 20%-25% spread between the two. Mr. DuBose qualified the definition of base load, saying that he meant actual average load versus the load on a hotter day. Council Member Strom determined that the difference was about 25% and that he had understood it correctly.

Mayor Foy, noting that there were five chiller locations, asked if there were any other chillers in UNC's Master Plan. Mr. DuBose replied that those that had been identified would serve all of the build-out of the main campus.

Mayor Foy asked how noise would be monitored so that it stays within the target range. He also inquired about measures that UNC could take if the noise level exceeded the target range. Mr. Petterson replied that monitoring would be done by measuring noise at the various property boundaries with everything in operation to prove that it meets the Town's Noise Ordinance. He said that noise would be controlled by using low-speed quiet fans, sound absorption materials and acoustical louvers, and by making the building envelope tight. Mr. Petterson stated that they probably would not include attenuators on tower inlets and outlets or mats inside the basins unless required to do so. Those features could be added later if necessary, he said.

Mayor Foy determined that Mr. Petterson's company had not had to add attenuators and basins in any other facilities that it had designed. Nor had there been any complaints about noise in the more than 50 chillers that they had designed, Mr. Petterson said. Mr. Petterson explained that an acoustical consultant typically addresses such concerns when a plant is in a sensitive area.

Council Member Strom asked if putting the chiller in the northwest corner of the site would affect its operation or efficiency in any way. Mr. Petterson replied that that would work from a technical and operational standpoint, but the place where it was now planned was the optimal location. Council Member Strom verified that the University would have to do additional noise abatement if the Town were to request that the chiller be placed in the northwest corner.

- **Carolyn Elfland and George Alexiou – Powerpoint Presentation on Cobb Deck and Related Transportation Improvements**

Mayor Foy noted that Ms. Elfland and Mr. Alexiou, of Martin/Alexiou/Bryson, PLLC, had presented this material at the last meeting. Committee members had copies of the traffic mitigation study, he said.

Ms. Elfland distributed an explanation of the current special event use of the Cobb lot, which Council Member Ward had requested, and a response to Council Member Strom's request for an overview of student parking. She then explained why UNC wanted the deck at this location and at this time.

Ms. Elfland said that UNC had divided the campus into four regions during the master planning process. These four regions included 22 sites for decks, she said. Ms. Elfland explained why some of those sites had been rejected and she listed the four (Swain/Abernathy, Morehead,

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Venable, Cobb) that were finally included in the Master Plan. She reminded Committee members that the Swain/Abernathy and the Venable decks had also been included in the Development Plan. Ms. Elfland noted that UNC was now requesting that Cobb be included as well, for employee and visitor parking.

Ms. Elfland explained that the Venable Deck would have less than half as many parking spaces as originally planned, and other lots that UNC had counted on will be reduced as well. She presented figures explaining why UNC expects the number of available parking spaces to be lower than its target without the Cobb deck. The Cobb deck was necessary to provide additional parking, more pedestrian circulation, and green space around that area, she said.

Ms. Elfland stated that UNC needed the deck now because, without it, parking on north campus would drop to less than 30% for employees when Swain/Abernathy is lost to the Arts Common project. This would be too low to be able to recruit and retain employees to work in north campus departments, she said. Ms. Elfland pointed out that designing and constructing the deck and chiller together would give a better design for both and would cost less. She presented a chart showing who would park in the 548 Cobb deck spaces.

Mr. Alexiou addressed concerns that had been expressed about whether the streets could handle traffic generated by the Cobb parking deck. The University would implement signal timing to improve the efficiency of the intersections, he said. Mr. Alexiou discussed proposed improvements at the intersections of Raleigh Street/South Road, Raleigh Street/Cameron Avenue/Country Club Road, Country Club Road/South Road, and Country Club/Gimghoul Road. He presented figures indicating that the level of service in those areas would improve under the Development Plan.

- **Discussion by Committee**

Council Member Strom inquired about pedestrian movement at South Road/Country Club Road. Mr. Alexiou replied that he had not analyzed that but that improvements would include repainting the pedestrian crosswalks and generally upgrading signals. Council Member Strom asked if performance statistics would or would not be affected by pedestrian improvements there. Mr. Alexiou replied that there would always be time for a pedestrian to get across the road in one phase in all approaches. The intersection's efficiency would be improved because traffic would travel through more quickly due to the extra turn lanes, he said.

Mayor Foy told Committee members that Council Member Verkerk had requested that they deviate from their schedule to allow her to comment at this time. Committee members agreed by consensus to allow Council Member Verkerk time to speak. Mayor Foy also noted that Council Member Mark Kleinschmidt and Mayor pro tem Pat Evans were present.

Council Member Verkerk explained that she was also a UNC Associate Professor of Art History, Director of Graduate Students, and Assistant Chair of the Art Department. She stated she had served on UNC's Transportation Committee from 1999-2001, leaving to become a Town Council member in 2002. Council Member Verkerk stated that the makeup of the Transportation Committee had changed since she was a member. Former committee members had believed in

public transportation, she said, and had favored a cultural shift toward transit and alternative transportation. They never discussed things such as wider intersections, triple lefts and additional right turns, she said. Council Member Verkerk proposed that the plan to build more decks in the interior of campus represented a change in philosophy. She stated that students and faculty would begin to understand what was at stake if someone were to explain how much this plan would cost and how much would be taken away.

Council Member Strom asked Ms. Elfland to explain what dropping the 33% student single occupancy usage to 30% meant, adding that it seemed like a "stunningly high" number to him. Ms. Elfland explained that there were 3,795 spaces for students, but 1,100 of those were off-campus spaces. So, she said, there are 1,695 on-campus spaces with about 8,000 students living on campus. In a recent UNC study, Ms. Elfland said, 33% of students and 72% of employees reported that they drove to campus alone. So the University decided to change those transportation patterns and set a target of 54% for employees and 30% for students, she said.

Ms. Elfland agreed that there seems to be a discrepancy between the number of parking spaces for commuting students and the number of students who say they drive alone to campus. She said that the only explanation she could offer was that students had been parking in pay lots. Ms. Elfland pointed out that the University was adding vehicle recognition technology to its decks so that students would not be able to park by the hour.

Council Member Strom asked how the 2,695 spaces were used in general. Ms. Elfland replied that about 300 of them belong to married students. The business school had about 220, she said, adding that they require a three-person or more carpool to be eligible for a permit. Ms. Elfland reported that law students had a few more than 200 spaces and medical students had less than 200. She explained that Student Government manages the rest of the spaces for regular graduate students and undergraduates. About 350 of those are for hardship cases, she said, and the rest are assigned by lottery within groups that Student Government determines.

Council Member Strom asked if there were any non-commuting spaces. Ms. Elfland replied that Student Government controlled 2,464 of the 3,795 spaces that were allocated to them and that 1,130 of those were off-campus storage spaces for resident students. So, only 1,678 on campus spaces are controlled by Student Government, she said, adding that they decide how many of those are for resident students and how many for commuters.

Council Member Wiggins asked if UNC had given any more thought to improving the intersection near the Battle House area. Ms. Elfland replied that the University and staff had agreed that the intersection probably needed some improvement, such as a signal or a roundabout without a signal. But, she added, they had not yet done the engineering or studied it further.

Mr. Horton pointed out that one of the stipulations the staff had recommended for Council consideration was for such traffic engineering design improvements.

Mayor Foy asked if there was access to the Cobb site from Raleigh Street. Ms. Elfland replied that there was now, but under the plan access would be for emergency and service vehicles. Brick pavers would be installed, she explained, and it would become a pedestrian corridor except

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for emergency and service. Mayor Foy pointed out that there would be more traffic at the intersection even if UNC did not increase the number of parking spaces at this location. Everyone who had been going in and out from Raleigh Street would no longer be able to do so, he said. Ms. Elfland replied that this had been factored into the data that Mr. Alexiou presented.

Mayor Foy explained that he was trying to understand what the actual experience would be for people in the area. He noted that all of the traffic would come through the Gimghoul area and that people going in and out at 5:00 p.m. looking for a space would create much "phantom traffic." Ms. Elfland agreed that traffic counts there were about three times what you would expect at peak hour given the number of cars that park there. When the parking regulations end at 5:00 p.m. students circle around trying to get spaces when people leave, she said. Ms. Elfland noted that parking regulations would be in effect until 9:00 p.m. This would eliminate circling because no one would be able to enter at that time, she said.

Council Member Wiggins noted that Mr. Alexiou had said that parking counts had not been changed to reflect the decrease in parking at Venable and Cobb and that he expected those levels of service to improve the next time he studied it. She asked Mr. Alexiou if counts would drop enough to make some of the extra lanes unnecessary. Mr. Alexiou replied that there still should be a left turn lane into the Cobb deck. He also pointed out that Town staff had suggested making that turn as long as possible, which would require some widening between Gimghoul Road and South Road on Country Club Road.

Council Member Strom asked why there had not been letter grades assigned on the last slide describing Country Club Road/Gimghoul Road delays. Mr. Alexiou explained that the analysis had only been for traffic coming out of Gimghoul Road. Council Member Strom asked Mr. Alexiou if he felt the Town's signaling system could handle the kind of complex timing being recommended. Mr. Alexiou said that the recommendations had anticipated upgrades to the Town's system. But, even if those upgrades were not done, the Gimghoul and South Road signals could be interconnected so that they would be properly coordinated, he said.

Mayor Foy suggested that the Committee set a date for continuing the meeting. After some discussion, Committee members agreed to meet on August 15<sup>th</sup> at 10 a.m. and again August 18<sup>th</sup> at 10 a.m. at the Chapel Hill Town Hall. And if the Committee was not ready to make a recommendation on August 25<sup>th</sup>, said Mayor Foy, the Town Council could schedule another meeting on August 28<sup>th</sup>. The Committee should not feel constrained, he said, and should act only when it is ready.

- **Cobb Deck and Related Community Improvements – Bruce Runberg**

Mr. Runberg summarized the proposed improvements to the Cobb area, including a reduction of impervious surface by one acre. The plan also separates vehicular from pedestrian traffic, he said, making this a much safer area. He noted the inclusion of stormwater management or mitigation. Mr. Runberg explained that UNC had reduced the Cobb deck height by 10-12 feet and the number of parking spaces from 641 to 548. The plan would provide additional parking for the performing arts, he pointed out. Mr. Runberg noted that there would be a new quadrangle and that pedestrian traffic would be channeled around the area, reducing the number of paths.

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He emphasized the proposed elimination of on-street parking along the cemetery wall and the 44 feet of buffering. The cemetery wall would be repaired and there would be significant traffic mitigation, Mr. Runberg said.

Mr. Perry asked if there was a possibility of moving the deck farther away from the cemetery. Mr. Runberg replied that they were considering moving it farther north to provide additional buffer. He emphasized, though, that the deck could only be moved so far and still retain other attributes of the plan.

Council Member Strom inquired about turning the entire deck to run parallel with South Road. Mr. Petterson replied that designers had considered about 25 different schemes. The plan as it is would not physically fit between the property lines and existing buildings if rotated, he said.

Mr. Runberg pointed out that UNC had been working with the N.C. Department of Cultural Resources regarding the cemetery. He remarked that other historic communities do have parking decks near cemeteries, adding that it was not something that was out of the ordinary.

Committee members agreed to defer discussion of the Jackson Circle overview to their next meeting on August 15<sup>th</sup>.

- **Public Comment**

Gimghoul Road resident Cat Williams expressed concern about graveside services at the cemetery during construction. She explained that both her husband and son were buried there and that she only has access to the cemetery on weekends. Ms. Williams predicted that she would have even less access after the proposed changes have been made. Then the gates will be down on weekends as well, she said. Ms. Williams stated that these issues bother her even more than the restrictions that she and her Gimghoul neighbors will face.

The meeting adjourned at 12:23 p.m.