HDR Conference Memos

CONFERENCE MEMORANDUM

Memorandum

Date: June 6, 2000

Client: ECU/PCMH Master and Facility Plan

HDR Project No: 06893-002-021-02

Conference Subject: **GENERAL COMMENTS** - Master Plan Committee Meeting

Conference Location: ECU, Greenville, NC

Conference Date: May 30 – June 2, 2000

Conference Memorandum By: Heidi N. Higgason

Conference Participants:

HDR, Inc.	ECU/PCMH
Heidi Higgason	Bruce Flye, Campus Planning
Jerry Kinkade	Jonathon Shambare, Campus Planning
Cyndi McCullough	ETC.

Conference Brief:

- The desired approach in designing the "new" West campus focuses on centralized and connected buildings.
- The Brody building needs to be updated – for example, fume hood exhaust is expelled directly over the air intake, so it is drawn right back into the building.
- The Biotechnology Building was designed to accept 1-2 more floors, and the Life Sciences Building was also designed to accommodate an additional 2 floors.
- College identification would not be adversely affected by sharing a building with the other disciplines.
- Bill Pryor (Comparative Medicine) will be retiring in approximately 1 month.
- The addition of the Schools of Nursing and Allied Health Sciences is looked upon with positive anticipation.
- Scheduling of classrooms will need to be a collaborative effort; the schedules currently followed by each individual school will not work when all schools are located together and sharing facilities.
- Transportation needs to be provided between East and West campus.
- ECU SOM needs a Technology Plan – "where do we want to go and where do we want to stop." This has to fit in with the school's mission and education philosophy.
- Locations of department offices, labs, faculty offices and clinics have been "ad hoc." Wherever space was available, new uses were moved in. This has created some inefficiency and a lack of interaction between departments.
- Parking is of utmost importance. There is already a shortage on this site, so the addition of new people and programs create the need for a considerable amount of new parking.
- 24 hour/7 day a week study rooms are needed for student use.

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Date: June 6, 2000

Client: ECU/PCMH Master and Facility Plan

HDR Project No: 06893-002-021-02

Conference Subject: **RESEARCH** - Master Plan Committee Meeting

Conference Location: ECU, Greenville, NC

Conference Date: May 31, 2000

Conference Memorandum By: Heidi N. Higgason

Conference Participants:

HDR, Inc.	ECU/PCMH
Heidi Higgason	Bruce Flye, Campus Planning
Jerry Kinkade	Jonathon Shambare, Campus Planning
Cyndi McCullough	Joe Cory, Biochemistry
	Bill Pryor, Comparative Medicine

Conference Brief:

- Research Departments (in Brody):
  - Anatomy/Cell Biology
  - Biochemistry
  - Internal Medicine
  - Microbiology/Immunology
  - Pathology and Lab Medicine
  - Pediatrics
  - Pharmacology
  - Physiology
  - Psychiatry
  - Surgery

- Allied Health and Nursing will need research space on this campus. Currently, these 2 departments have almost no research activity because of the lack of space and facilities.
- It is not foreseen that the faculty in SOM will grow. On the other hand, the number of technicians, post-doctoral, and graduate students is expected to grow. This growth will be based solely on grants/funding. More grants are expected because new faculty members are hired as the result of retirements, and these new faculty members generally have had more interest in doing research.
- A 25% increase in submissions for grants is foreseen in the Basic Sciences over the next 5 years. This would equal 12-13% growth in actual grant funds.
- Departmental space (labs) is allocated at the discretion of the Department Chair. In addition to that, flex labs are allocated by the Space Committee, assigned on a 2-year basis/rotation. Most of these flex labs are located on the 3rd floor of the Brody Building. There are 10 flex labs; 5 have been reassigned and 5 are available. Some are being used for other purposes, such as administrative space.
- Administrative space is the biggest space request currently being made to the Space Committee.
- The research space is not optimal. There is no room for growth.
- Collaboration between departments is not prescribed – it is on an individual basis. This is needed, but was never "designed-in."
- Example: Joe Cory currently utilizes approximately 2,500 SF of labs. It would be much more beneficial to have 1 large 1,100 SF lab.
- Open labs shared with other departments would not be a problem.

- To make optimal use of the space, offices should be located in the labs. (Joe Cory's lab is approximately 50 feet from his labs, and this is sufficient).
- Clinical Sciences Research is growing.
  - Patient-based, statistical data analysis.
  - Need for administrative and clinical trials/clinical research space.
  - Should this be a separate building or included with the other clinics?
  - This research currently occurs in various departments and locations.
  - There is a "Clinical Trials Office" – this is an effort to centralize the coordination of this research. However, the different departments don't always go through this office like they are supposed to.
- It should be assumed that (wet) research will remain in the Brody Building. If Administrative, Storage and Clinical Research were moved into other facilities, Brody would supply ample wet research space to meet all of the foreseeable needs (per Bill Pryor). If these functions were moved, 10-15 more labs could be available for research.
- Clinical Research needs administrative space and classrooms (better designed and bigger than existing). These spaces need to be located near the Outpatient Center and the Hospital. Suggestion: build a classroom building and convert some Brody classrooms to these administrative offices.
- There is a need for a CRC (Clinical Research Center). Could this be located together, or would it cause problems? Most probably – it will continue to be dispersed (for example, Age Research and Diabetes Research couldn't be located together).
- A need was expressed for an Administrative Building.
- Storage space is a big need. Currently, the Brody Building supplies very little.
- New Core Facilities, in addition to those existing, will be necessary to support new fields (as well as IT help with data). A Trans-genic Animal core is a future possibility, but this will be accommodated in the existing Comparative Medicine facilities.
- There is a need for classrooms to accommodate 20-50 people. There are not enough classrooms currently. Joint classes with between Nursing, Allied Health and Basic Sciences are not foreseen. Faculty from some other departments do, however, teach the Allied Health and Nursing students.
- The connectedness of the Brody Building and the Life Sciences Building is very important due to weather. Faculty and staff appreciate the connectivity of existing buildings. This would suggest connecting future structures.
- A big problem in the Brody Building is the lack of break space. There is no provision made for places to sit, relax, eat, etc.
- Another problem is the complete lack of vacuum and compressed air lines in the labs.
- Library use would greatly decline if it were moved to a separate building, however, the future of computer access may change/affect that.
- Most lab equipment is departmentally owned, not owned by individuals, so lab space is shared for equipment storage.
- The 5th Floor Teaching Lab would be optimal if it could be split and used for departments. This will probably not happen.
- Biochemistry has no space for graduate students, and they should have their own spaces.
- It would be beneficial to have "generic" lab(s) for teaching labs.
- The Gross Anatomy Lab is undersized.
- The Life Sciences Building has a Clinical Trials Space that is not being used, and Clinical Trials is a big need. Sam Pennington needs to be consulted concerning this.
- If a School of Pharmacy becomes reality, it would share some Biochemistry and Pharmacology professors, but the wet labs in Brody would not be suitable for teaching Pharmacy. Pharmacy research would collaborate with Pharmacology on many things.
- Departmental offices are fine as far as space needs. The only additions would be technicians, post-doctoral, and graduate students.
- The labs need to be updated (for example: the fume hoods originally were exhausted into the building exhaust with a heat recovery wheel which blew it back in...some have since been separately ducted, but not all).
- Microbiology occupies approximately half of the 5th floor. These labs need renovation, and half of the Microbiology faculty is located in the Biotechnology Building.
- "Research Complex" – Brody Building + Biotechnology Building + Life Sciences Building.

- Security is a concern. Currently, the public has access to all floors in Brody. This will need to be restricted.

Date: June 6, 2000

Client: ECU/PCMH Master and Facility Plan

HDR Project No: 06893-002-021-02

Conference Subject: **EDUCATION** - Master Plan Committee Meeting

Conference Location: ECU, Greenville, NC

Conference Date: May 31, 2000

Conference Memorandum By: Heidi N. Higgason

Conference Participants:

HDR, Inc.
Heidi Higgason
Jerry Kinkade
Cyndi McCullough

ECU/PCMH
Bruce Flye, Campus Planning
Jonathon Shambare, Campus Planning
Don Barnes, SOM Pharmacology
Maria Clay, Clinical Skills/Interdisciplinary
Gregg D. Givens, School of Allied Health Sciences/GSDI
J. Frank James, MD, Psychiatry
Ann Jobe, Associate Dean of Education
Lars C. Larsen, MD, Academic Affairs/Family Med.
Richard Marks, SOM Biochemistry
Henry Stone, SOM Microbiology & Immunology
Phyllis Turner, School of Nursing
Joe Webster, Physical Medicine & Rehabilitation
Steve Willis, SOM Family Medicine

Conference Brief:

- Classrooms
  - In the School of Nursing, undergraduate classes are large – 80-90 students in a room.
  - The Nursing Graduate School has 6 majors, so smaller classrooms/seminar rooms are needed.
- It was suggested that rooms should be designed to accommodate no less than 20 students – this is a problem now.
- Lecture Room – a "buffer" space needs to be created at the front, for future growth/change in technology.
  - Must have connections for power and Internet.
  - Design so that entry to the room is from the rear, not the front as it is currently.
- Design-in flexibility for ALL classrooms and lecture rooms.
-

Current Needs	Lecture Room	Large Classroom	Small Classroom	Seminar Room
	number of students per room (number of rooms)			
Nursing	90-100 (2)	50 (6)		15 (many)
Allied Health	250 (1) 100 (1)	50 (10)	30 (many)	20
Medicine	100-150 (2) 80-100 (3)	50 (2)	30 (5)	20 (10)
H.S. campus	800 (1)			

Current Needs	Clinical Practice Lab	Conference Room	Study Rooms	Media Center	Skills Lab	Dedicated Labs
	number of students per room (number of rooms)					
Medicine	30	30 (3)	also use seminar rooms	1	(shared)	Microbiology Lab
Nursing	(shared)	(shared)		(shared)	10 (3)	
Allied Health	(shared)	(shared)		(shared)	(shared)	1. OT Lab 2. PT Lab 3. CLS Lab 4. Health Information Management

- A number of seminar rooms, corresponding to the number of Clinical Simulation facilities, need to be located close to those facilities.
- There is a need for 24 simulated clinical labs (not for seeing patients).
- There is a need for 18 modular clinical rooms. These could be shared between disciplines.
- Technology support is currently inadequate. It would be ideal to have a central room for videos; one room to run videos into separate small group rooms instead of separate video equipment in each small group room.
- There is a need for an 800-seat theater-style auditorium. This would be used for community events in addition to school uses. This would require University support.
- When Clinicians/Physicians from PCMH are teaching (which happens often), they are usually only available after 1 p.m. This affects scheduling.
- Nursing graduate students generally have classes in the late afternoon and evening, because they are part-time, working students.
- The College of Nursing is looking at adding a Doctoral Program.
- Nursing and Allied Health schedules are similar; some days are dedicated classroom days, while others are spent at clinical sites. This means that some days, the classrooms are filled to capacity, while others, they sit completely empty.
- ECU SOM is moving towards requiring all students to have their own laptop in one year. Will Allied Health and Nursing students also be included in this requirement?
- Computer Labs are still necessary, regardless of the laptop requirements. Resident physicians need to have ready access to computers also.
- Student Study Spaces are in demand – for 24/7 studying. They could also use a "congregating room" with lockers, message boards. Could these possibly be part of student life/housing?
- Is a "virtual reality" teaching room a possibility in the future?
- Wet Labs – Microbiology alone needs stations for 80 people.
- Faculty Offices for each school should be located close to the classrooms, rather than close to administration.
- College identification would not be adversely affected by sharing a building with the other disciplines.

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HDR Project No: 06893-002-021-02

Conference Subject: **CLINICAL OPERATIONS** - Master Plan Committee Meeting

Conference Location: ECU, Greenville, NC

Conference Date: May 31, 2000

Conference Memorandum By: Heidi N. Higgason

Conference Participants:

HDR, Inc.	ECU/PCMH
Heidi Higgason	Bruce Flye, Campus Planning
Jerry Kinkade	Jonathon Shambare, Campus Planning
Cyndi McCullough	Rose L. Allen, Ph.D., School of Allied Health Sciences
	Clyde Brooks, ECU Physicians
	Carolyn Erwin, Group Practice Administration
	Janet Moye, Group Practice Administration
	Richard Reinhart, ECU Physicians
	Ralph Whatley, Department of Medicine

Conference Brief:

- The following is a reproduction of a handout provided by Richard Reinhart:
  - Patient volumes, revenues and providers have been growing at about 5% per year for the past 5 years.
  - Predict a doubling of clinical operations within the next 7-10 years.
  - Nursing School and Allied Health will be moving to medical campus.
  - Family Practice Center planned for medical campus.
  - Clinics have expanded to off-site locations over past 5-7 years (Pavilion, Women's, Plastics, Psychiatry, FMO) because:
    - Facilities in Brody generally limited and inadequate.
    - Expansion sites have generally been old, partially/inadequately renovated buildings vacated by someone else.
    - Off-site locations are a mix of primary care/specialty clinics.
    - FMO and Bethel planned for locations to meet some geographic need for primary care although for FMO no formal market analysis performed.
  - Support for clinical operations
    - Some centralized services – medical records, billing & reimbursement, patient services, facilities
    - Some decentralized – nursing, facilities
  - Clinic space/clinical operations not shared.
  - PROPOSAL:
    - Centralized facilities within discrete geographical location (Medical Mall – café, optical store, retail pharmacy, durable medical equipment sales, etc.).
    - Integrated/centralized clinical support services/facilities.
    - Ancillary services (medical records, billing & reimbursement, patient services, group practice administration, nursing services) within proximity to clinical sites with adequate physical space.
    - Centralized diagnostic center easily accessible from clinic sites – X ray, laboratory, ultrasound, CT, MRI, etc. If centrally located, could be shared with the hospital. Would need to be flexible space for future renovation.
    - Adequate parking, signage, ingress, egress.

    - Transportation to remainder of medical campus and east campus.
    - Reasonable proximity to PCMH.
    - Selected off-site clinics bringing care to community (Bethel, FMO, East Greenville, etc.) based on market analysis – this would include assessment of regional needs for local/onsite medical care.
    - Development of process to perform market analysis.
    - Impact of IT on clinical operations – scheduling of patients/services/facilities/ancillaries, reporting of labs, patient/staff/provider education via Internet/intranet.
    - Some generic character to clinical space that allows sharing of facilities by primary care/specialties – some specific facilities needs for some specialties.
- There is a desire to centralize the clinics (Pavilion is even too far away – there is no café for staff, and patients have to be transported back and forth from PCMH for tests). In centralizing the clinics, the desire for a café, post office, daycare, etc. was expressed.
- Ancillary services are very important, and are currently spread out.
- SOM and clinics are trying to have seamless records sharing between their computer systems (inpatient and outpatient). Currently this is not an optimum system.
- Clinic sites will need to accommodate Nursing and Allied Health clinical students. The state governs the clinical sizes and sites. The current clinic sites won't be able to accommodate the current number of students with the addition of Nursing and Allied Health, much less any growth in numbers.
- There is a desire to move all clinics out of Brody (it is inadequate) and into one centralized "Medical Mall", which needs to be physically attached to SOM and PCMH. There is a great deal of gurney and wheelchair traffic necessary between the clinics and PCMH.
- The proposed location of the Family Practice Center (in the triangle) is a good location.
- Proximity to the hospital is more important for some clinics than for others.
- Better facilities = better recruitment = more physicians = shorter wait for appointments (currently, some appointments have to be scheduled 4 months in advance).
- Currently there is no marketing effort for the clinics. If a marketing effort were put forth, if employees got their care at ECU Physicians, or if the ECU campus decided to retain their services; any one of these factors would immediately put the clinic demand beyond its current capabilities.
- ECU Physicians currently serves 29+ counties.
- ECU Physicians absolutely do NOT want to co-mingle student areas in with the clinics.
- Hurricanes occur on a 2-3 decade cycle (in other words, the current hurricane occurrences/conditions will continue this way for 2-3 decades before changing).
    - Water – a new well or tower is needed – the hospital lost its water service during the last hurricane.
    - Back-up generators are necessary.
    - Underground circulation would be optimum for hurricane occurrences.
- Allied Health clinics = SLAP and a very small PT clinic are the only needs currently. These would definitely work in a "medical mall" situation.
- "All clinics need to be located here unless there is a reason for them to be located elsewhere (such as Fire Tower)."
- Plan for the future – a computer screen in each exam room some day. The Physical Plant is trying to install wireless technology, but they have run into many problems retrofitting Brody.
- Technology, telemedicine will become even more important. Some day, patients may be provided with Internet access for patient education etc. while waiting for appointments (in the waiting rooms).

Date: June 6, 2000

Client: ECU/PCMH Master and Facility Plan

HDR Project No: 06893-002-021-02

Conference Subject: **COMPARATIVE MEDICINE** - Master Plan Committee Meeting

Conference Location: ECU, Greenville, NC

Conference Date: May 31, 2000

Conference Memorandum By: Heidi N. Higgason

Conference Participants:

HDR, Inc.	ECU/PCMH
Heidi Higgason	Bruce Flye, Campus Planning
Jerry Kinkade	Jonathon Shambare, Campus Planning
Cyndi McCullough	Lamar Blackenship, Comparative Medicine
	Brian McMillen, Pharmacology
	Bill Pryor, Comparative Medicine
	Steve Vore, Comparative Medicine

Conference Brief:

- Comparative Medicine currently occupies 30-35,000 SF in Brody, and 30,000 SF in the Life Sciences building.
- 94% of their inventory is rats and mice. There is also a small number of dogs, monkeys, hamsters, pigs, calves and sheep – not all the time.
- This department moved into the Life Sciences building 1 year ago. These are good facilities, and there is adequate teaching and research space for at least the next 5 years.
- Advancements in the past 2-3 years that have affected the capacity of Comparative Medicine:
    - Contracts have been established with companies for pharmaceutical and medical research, which has increased the funding and number of animals. For example, 75 monkeys are being added over the course of this year for a contract. Once these animals are added, the Comparative Medicine facilities will be 80-85% full/utilized.
    - Clinical departments used to do a lot more research with animals than they do now. This trend is expected to continue this way.
- Currently there are 2 investigators from Allied Health doing research, and they use very little space. Allied Health and Nursing have always been encouraged to do animal research, but haven't utilized it much. Those schools moving over to the same campus is not expected to make a large change in that.
- Pharmaceuticals aren't expected to drastically change the use of Comparative Medicine facilities either.
- Comparative Medicine also supports the Psychology Department on East Campus. Biology (on East Campus) has its own animal support and system.
- When animals are brought to the campus, they enter the Life Sciences building first.
- A Trans-genic Facility is one future possibility – the animals would be kept in the regular animal facility, and existing space would be used for a support lab.
- The Life Sciences Building was designed to accommodate 2 additional floors.
- Comparative Medicine offices, labs and surgery are located on the 2nd floor of Life Sciences. The Department of Surgery would like to build and take over those 2 additional floors.
- Much of the research currently done requires tissue or partial samples, so whole animal space isn't needed like it was in the past.
- Comparative Medicine has 3 faculty and 25 staff.

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Client: ECU/PCMH Master and Facility Plan

HDR Project No: 06893-002-021-02

Conference Subject: **CORE FACILITIES** - Master Plan Committee Meeting

Conference Location: ECU, Greenville, NC

Conference Date: June 1, 2000

Conference Memorandum By: Heidi N. Higgason

Conference Participants:

HDR, Inc.	ECU/PCMH
Heidi Higgason	Bruce Flye, Campus Planning
Jerry Kinkade	Jonathon Shambare, Campus Planning
	Art Bode, Pathology & Lab Medicine
	Joe Chalovich, Biochemistry
	Donald Hoffman, Pathology & Lab Medicine
	Mark Mannie, Microbiology
	Paul Phibbs, ECU Biotechnology & Micro-Immunology

Conference Brief:

- No representatives from Allied Health or Nursing were present. Do they have specific needs for core facilities?
- There are some original cores that are currently inactive. This occurred usually because of changing prices in the market, making it more economical to have the work done elsewhere. Some of these inactive labs include DNA, Peptide, Automated Amino Acids Synthesis, etc. These inactive cores are expected to remain inactive.
- Locations of existing labs are the result of locating where space was available. They should be located near the people who run them.
- New Core Facilities, in addition to those existing, will be necessary to support new fields (as well as IT help with data). A Trans-genic Animal core is a future possibility, but this will be accommodated in the existing Comparative Medicine facilities.
- A survey of faculty needs to be done to determine what core facility needs are for the future.
- Future core facilities should be grouped into "Service Clusters," as shown by the chart on the following page.
- There is a problem currently with the ability to support the facilities.
- Clinical Trials Support Research is very important, and PCMH currently does not have beds available for these trials (those beds intended for this use have been converted to hospital patient beds because of the high demand and lack of space there). The support is apparently already in place.
- Currently, 50% of the core spaces are located in the Brody Building, with the other 50% in Biotechnology. There are certain labs built specifically for one use or another, but aside from those, there is no steadfast reason for the labs to be located in a certain place. Proximity to support staff should be a priority in location.
- The Biotechnology Building was originally planned to house solely Research Support Space, but not wet labs. Through the course of construction, the program was changed (supposedly temporarily) to accommodate the current Pediatric Clinic on the bottom floors. This building was designed to support 1-2 additional floors.
- It was suggested that no core facilities should be located in the Life Sciences building, because of concerns with the electrical system and building vibration.
- The chart on the following page was assembled during the meeting:

g Core Facilities (location)	"Wish list" of Future Cores	Future Cores as grouped for "Service Clusters"
Monoclonal Antibody (Brody)	Immunological Services	1. Cytometry
Flow Cytometry (Brody 4th)	Genomics Analysis/Micro Arrays	Micro Injection
Confocal Microscopy	Proteomics Facility	Flow Cytometry
Protein Sequencing (Biotechnology)	Fluoroscout Microscopy	Confocal Microscopy
Molecular Genetics Computer Databases	Automated Nucleic Acid Sequencing	Electron Microscopy
Biotechnology)	Spectroscopy	Fluoroscout Microscopy
Molecular Biology Reagents Supply	Calorimetry	2. Immunological Services
Service (Biotechnology)	Mass Spectroscopy	Monoclonal Antibody
Manual Nucleic Acid Sequencing	Analytical Ultra Centrifuge	Immunological Services
Biotech)	Light Scanner	3. Proteomics
PCR Facilities (Biotechnology)	Hystology	Protein Sequencing
Automated X-Ray Developing	Micro Injection	Proteomics Facility
Biotechnology)		Automated Amino Acid Analysis
Gel Image Capture & Photography		Protein Separation Facility/HPLC
Biotech)		Spectroscopy
Biostatistics (Life Sciences)		Calorimetry
Automated Amino Acid Analysis (Brody)		Mass Spectroscopy
Protein Separation Facilities, HPLC		Light Scanner
Brody 4th)		Analytical Ultra Centrifuge
Automated Nucleic Acid Synthesis		4. Genomics
Biotech)		Molecular Genetics Computer Databases
Peptide Synthesis (Brody)		Molecular Modeling
Phosphor Imaging (Brody)		Genomics Analysis/Micro Arrays
n Microscopy		5. Image
lecular Modeling		Automated X-Ray Developing
Clinical Trials Support		Gel Image Capture & Photography
Fermentor (Brody)		Phosphor Imaging
		6. Nucleic
talics indicate an Existing Core Facility		Manual Nucleic Acid Sequencing
hat is Inactive.		PCR Facilities
		Automated Nucleic Acid Sequencing
		7. Molecular Biology Reagents Supply Service
		8. Biostatistics
		9. Clinical Trials Support
		10. Hystology
		11. BCL3 (Biocontainment Level 3)
		12. Fermentor

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Date: June 6, 2000

Client: ECU/PCMH Master and Facility Plan

HDR Project No: 06893-002-021-02

Conference Subject: ADMINISTRATIVE - Master Plan Committee Meeting

Conference Location: ECU, Greenville, NC

Conference Date: June 1, 2000

Conference Memorandum By: Heidi N. Higgason

Conference Participants:

HDR, Inc.	ECU/PCMH
Heidi Higgason	Bruce Flye, Campus Planning
Jerry Kinkade	Jonathon Shambare, Campus Planning
	Greg Hassler, SOM Attorney
	Jeannine Hutson, News & Information
	Ann Jobe, Associate Dean of Education
	Dixie Kddjeski, School of Nursing
	David R. Kennedy, Eastern AHEC
	Chris Mansfield, Center for Health Sciences Research & Development
	Katherine McGinnis, Eastern AHEC
	John Worth, MFPP – Chief Financial Officer

Conference Brief:

- A preliminary list of Health Sciences Administration was compiled:
  - Vice Chancellor's Office
  - Development & Alumni Affairs (Foundation also has its own department)
  - Center for Health Science Communication
  - Business Office
  - Practice Plan Administration
    - Billing & Reimbursement
    - Patient Services
    - Medical Records
    - Pharmacy
    - Social Work
    - Clinical Facilities Administration
  - News & Information
  - Agri-medicine Central Office
  - Interdisciplinary Health Sciences Education
  - Center for Health Services Research & Development
  - Center for Aging
  - Public Health Program (currently in the process of being developed)
  - Classroom Technology Administration/Meeting Rooms
  - Eastern AHEC (private non-profit, but extremely well-linked)
  - Library
  - Administrative Support Services (copying, printing, etc.)
  - ECU/PCMH Shared Administration

- "Incubator Area" = flex space for the temporary location of new programs.
- Right now many administrative groups are "dysfunctional" because they are geographically spread out over 3 or 4 locations.
- It is not necessary for all of the Health Sciences Administration to be located together; they just need to be clustered together according to function.
- Some programs need to be linked together. All of the programs need to learn how to work together.
- The core administrative people should be located in some proximity to each other for interaction and fostering collaboration. This could be in the form of separate "functional" groups with shared restrooms, conference rooms, break rooms and services.
- Meeting rooms must be capable of accommodating distance conferencing. This is a common occurrence with clinical sites that are spread all the way out to the coast.
- Scheduling will need to be looked at collaboratively. There is a definite ebb and flow of Health Sciences classes. Currently, most classes are taught in the morning and sit empty through the afternoon. This may have to change.
- How will the future of distance communication, electronic advances and telemedicine change space requirements?
- The ideal philosophy or atmosphere would be that of a "Community of Scholars" integrated with the community at large.
- The way students currently interact with administration is changing. Students no longer need to come to the office to register but instead do it via telephone or Internet. How will this change in the future, and correspondingly, how will the space needs for administrative offices change?

Date: June 6, 2000

Client: ECU/PCMH Master and Facility Plan

HDR Project No: 06893-002-021-02

Conference Subject: **LIBRARY** - Master Plan Committee Meeting

Conference Location: ECU, Greenville, NC

Conference Date: June 1, 2000

Conference Memorandum By: Heidi N. Higgason

Conference Participants:

HDR, Inc.	ECU/PCMH
Heidi Higgason	Bruce Flye, Campus Planning
Jerry Kinkade	Jonathon Shambare, Campus Planning
	Jack Brinn, SOM IS
	Rich Peterson, Health Sciences Library
	Donna McDonald, Health Sciences Library
	Dorothy Spencer, Health Sciences Library
	Beth Winstead, Health Sciences Library

Conference Brief:

- IT and the Library are very interconnected.
- Example: Chapel Hill Library is going through major renovations for the future based on technology assumptions (relying heavily on digital information and computer access). Chapel Hill is keeping its historical and hard copy materials, but all new information is in the form of digitized journals.
- The Library needs to be located equi-distant to all educational facilities. They don't want to be seen as "SOM's Library." Easy access from all departments and the hospital must be facilitated.
- Moving Nursing and Allied Health to this campus will definitely affect the library.

- Study Rooms are a major need right now. These need to be accessible 24 hours a day, 7 days a week, but able to be locked off from the library after-hours. These rooms must be sound-proofed, or at least constructed walls-to-deck (currently they are not, and noise infiltration is a problem).
- A vending area needs to be adjacent to these study spaces.
- ACRL has guidelines stating the number of study areas that should be provided.
- The entire campus, hospital, and study rooms all need Internet links to access the library information after-hours.
- Some faculty feel that library use would greatly decline if it were moved to a separate building, however, the future of computer access may change/affect that.
- Students, researchers, faculty, resident physicians, nursing students who are also PCMH employees, area physicians, and area residents all use the library. PCMH employees rarely use the library, presumably because it is too long of a walk. 50-70% of the users are students. The Library must be designed for both student and public ease of use.
- The culture of how healthcare is provided is what changes the library – people no longer just blindly take their prescription; instead, they research it at the library and learn about it. Many customers don't currently have home Internet access, so they come to the library for the bulk of their information needs.
- The Library 10 years from now will still have archives, paper and microfilm because there is no economically viable way to digitize it. The historical collection will not go away regardless of how much literature is available electronically. As technology progresses, the physical materials now held by the library will continue to grow for "x" number of years. Eventually, that will level off and electronic will be the media of choice, supplementing the physical materials. Dottie estimates that the collection will grow 150% from where it is now (the program is still young, and a lot of new programs are just getting started and will need to be supported). There will be a need for more space for the collection, but compact shelving should be utilized, and materials should be digitized whenever possible. The History of Medicine collection will continue to grow.
- The library needs to be accessible from public space, not just educational/university space.
- Staff space requirements are different now than they were in the past; they now need private offices, rather than open work space. The way the library operates currently is more focused on going "out" to the client via referencing and consulting.
- A room needs to be dedicated for the "History of Medicine" collection. This includes physical volumes, manuscripts, archives, artifacts, and classrooms for educating and to accommodate speakers. Dottie estimates that, for example, if the library were 100,000 SF, the History of Medicine collection would require an additional 20,000 SF.
- Multiple computer classrooms need to be provided.
- Space(s) need to be provided for all departments to meet with their respective staff.
- Use of natural light should be maximized.
- There should be only one public entrance to the Library. The current situation of 2 entrances is convenient for faculty and students in Brody, but requires more staffing and presents a security concern.
- A neutral multipurpose space for all the Colleges to use should be provided somewhere in this complex, but not in any one of their separate spaces (to avoid "ownership"). The library would be an ideal location for this.
- The Library needs the ability and space to support distance education/learning activities.
- A staff area needs to be provided near the computers for computer help.
- The future of the library will be "Data Mining." This is effectively a "gatekeeper" for the use of data. It isn't happening now, but is a future expectation. The Health Sciences library of the future will include the following elements: stacks, education space, administration, study rooms, and data mining. The Data Mining management access would require offices and conference space. It would encompass administration, research and education, and would be very IT-intensive.
- An idea has been presented for the creation of an ECU press, for copyrighting/publishing works. This is not something certain, nor is it foreseen in the near future. It would likely be located in the Joyner Library on the East Campus.

Date: June 6, 2000

Client: ECU/PCMH Master and Facility Plan

HDR Project No: 06893-002-021-02

Conference Subject: STUDENT LIFE - Master Plan Committee Meeting

Conference Location: ECU, Greenville, NC

Conference Date: June 1, 2000

Conference Memorandum By: Heidi N. Higgason

Conference Participants:

HDR, Inc.	ECU/PCMH
Heidi Higgason	Bruce Flye, Campus Planning
Jerry Kinkade	Jonathon Shambare, Campus Planning
	Manny Amaro, Housing
	David Emmerling, ASCC
	Julius Mallette, Student Affairs
	Garrie Moore, Vice Chancellor of Student Life
	Vickie Ogden, Student Affairs
	Randy Renegar, Student Affairs
	Frank Salamon, Dining
	Donna Walsh, Nursing

Conference Brief:

- Pre-Nursing students have always been very good housing clients. A large number of them live on campus, many for 4 years. Allied Health students are less so, but building non-traditional, apartment-style housing is expected to attract Allied Health, Nursing, Medical Students and possibly some hospital interns. Graduate students must be separate from the undergraduates because of different lifestyles and potential conflicts.
- Childcare services will need to be provided for housing residents. Residents would have priority.
- Security and safety for the housing would be an issue on this campus.
- Greenspace for children to play, interior courtyards, and playgrounds must be provided.
- Housing would be run on a priority system – West campus students first, and then others if there are units left.
- Almost all Medical students have a car, so parking must be provided.
- Recreation: Would it be possible to collaborate with PCMH for use of their new recreation center?
- Transportation between West and East Campuses needs to be looked at. This is a great need.
- There are a number of apartment complexes being built in this area. The housing would have to highlight is advantages as a "Learning Village" in order to compete.
- Food service
    - Should be located closer to the education spaces while still in proximity to residential.
    - This depends on the type of housing that is built.
    - Affordable, high-quality, wellness-type health foods will be offered.
    - Not one cafeteria, but multiple cafes; different environments and kinds of food.
    - A convenience store needs to be part of the residential component.
    - Ability to cater is a must.
- Study areas should be located in the residential area, with cafes nearby for breaks.
- Housing needs to be very close, and hopefully connected to, the educational buildings.
- Student Services that need access on this campus are as follows (these may not be full-time staffing in each area, and may actually rotate/share the same space):
    - Small group rooms/study spaces

- Computer Technical support, wireless rooms
- Health Service
- Counseling
- Financial Aid
- Registration
- Bookstore
- Housing office
- Cashier (SOM has one)
- Student Lounge
- Lockers, showers
- Parking office
- Career Services
- Multi-use space
- Learning Resource Center (Nursing now has it, but it would be better to be an integrated center for all disciplines to use).

- Recreation Space should provide small weights, some cardiovascular equipment. This should be located near the lockers and showers. This isn't intended to rival the East Campus center, but give them an option for small workouts/breaks.

Date: June 6, 2000

Client: ECU/PCMH Master and Facility Plan

HDR Project No: 06893-002-021-02

Conference Subject: **INFORMATION TECHNOLOGY** - Master Plan Committee Meeting

Conference Location: ECU, Greenville, NC

Conference Date: June 2, 2000

Conference Memorandum By: Heidi N. Higgason

Conference Participants:

HDR, Inc.	ECU/PCMH
Heidi Higgason	Bruce Flye, Campus Planning
Jerry Kinkade	Jonathon Shambare, Campus Planning
	Jack Brinn, SOM IS
	Karen Elberson, Nursing
	Gloria Jones, Center for Health Science Communications
	Dean Patton, Family Medicine

Conference Brief:

- HDR will be bringing on an IT consultant.
- The biggest problems currently are:
  - Cost & need vs. budget
  - Staff & Faculty literacy, especially with the changing of technology. There are some classes offered, but they are not highly regarded by faculty.
- Need for an IT training area, and a way to screen potential employees for their technology literacy.
- Access to technology help needs to be provided in close proximity.
- The "big" computers are presently, and will continue to be, located off-site, between the 2 campuses.
- Sharing with PCMH will become more important – communication between the two needs to be worked on.

- ECU uses only 2 systems in their clinics, as opposed to PCMH's many different systems that don't work well together.
- IT does write interfaces, but does not write their own programs.
- The infrastructure is just now being built to facilitate better communication.
- Wireless connectivity hubs and high band width will be necessary in the near future.
- There are huge equipment needs.
- Jack Brinn's list of thoughts about the future:
    - Palm Pilots will be the future, with a screen, keyboard and plug-ins for the palm pilots in all rooms.
    - Voice recognition for physicians to access medical records.
    - A high band width, and space for training on video conferencing will be needed. Video conferencing will require meeting rooms for small group instruction.
    - Kiosks will be located in the building(s) for students to plug into and check e-mail.
    - Data Warehousing people and facilities will be important. More tech-based people will be hired.
- PCMH has started looking towards the future by installing more infrastructure.
- Connectivity between the different offices, as well as with remote clinical sites, will be vital.
- Wireless communication will be a very large portion of the future environment here. It works very well because NC is so flat. IT already has access to some of the Highway Patrol's tower.
- Clinical – how is IT going to affect how we take care of patients? Many patients have their own access to the Internet, but not all patients even have their own phone yet – very diverse clientele. In the next 5-10 years, patients will come in with more information than they do now, and the Physician's roles may change towards a more consulting role.
    - Waiting rooms will change – information/connections will be available while patients wait.
    - Instead of teaching just the right exercises for a patient to do, we will be teaching patients how to access the correct information.
    - There will be a need for more group interaction possibilities with patients in the future, rather than single patients walking through the door.
- Faculty education and involvement is key. For example: some Nursing College staff (nearing retirement) drag their feet in the technology realm. Others are moving along very well in it. There is a need for "satellite people" to help guide those that are uncomfortable with technology.
- Basic education for students in the first couple of years is going to change.
- Distance education will grow, and therefore the need for small group rooms will grow.
- A few large multipurpose rooms (pertaining to the need for classrooms) are needed. All classrooms must be wired, and 1 web-based scheduling system for classrooms and meeting rooms must be developed.
- ECU SOM has not yet decided
    - How it wants to educate in the future. Many educators don't think the process of education will change, or are unable to think that way.
    - This isn't institutional-wide thinking yet.
- The direction is uncertain: ECU SOM needs to develop a philosophy, pertaining to teaching, socialization, interaction, and virtual technologies in the future.
- ECU SOM needs a Technology Plan – "where do we want to go and where do we want to stop." This has to fit in with the school's mission and education philosophy.
- PCMH and SOM are doing better than ECU as a whole at the philosophy aspect because of the patient aspect vs. teaching aspect.
- For research, high-performance computer resources will be needed – more than just PC's, but also video imaging, etc.

The foregoing memorandum constitutes our understanding of all the items discussed and any decisions reached. Please advise the undersigned in writing of any misinterpretations or omissions.

Sincerely,

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Integrated Healthcare Solutions

MEMO

TO: Sue Collier

FROM: Herschel Block

DATE: June 6, 2000

SUBJECT: **Preliminary Overview of UHS/ECU Master Site and Facility Plan Interviews with COE and Non-COE Groups held May 23-26, 2000**

As we discussed last week, the purpose of this communication is to provide you with information to share with the JAG. The following represents a preliminary overview of key points and issues that emanated from each UHS and ECU team meeting. Please contact me should you have any questions regarding the contents of this memo.

UHS/ECU Strategic Service Planning Issues & Observations:

UHS

- UHS should consider minimizing incentives for the private physician community to establish free standing niche services and private/proprietary partnerships
- Most COE teams have not developed a clear vision of their care delivery model
- Major operational and delivery issues exist in Surgical Services with respect to use of OR resources: equipment/product standardization, case turn over times, efficient management of inpatient and outpatients within the PCMH main surgical suite
- Resolve nurse shortage problem to staff available beds
- UHS should consider expressed need to develop a system level approach to providing Elder Care services
- Difference of opinion observed between Patient Care Services and Administration in need for PCMH to provide behavioral health services in response to State's closure of State psychiatric facilities

ECU

- Teams expressed vision of a physically compact Division of Health Sciences campus with interior access to buildings provided through contiguous relationships between structures; including student life functions.
- Team members, in general, could not articulate a vision of the future teaching model for the Division of Health Sciences nor how technology should serve the teaching model.
- Impact of distance learning on number and size of classrooms is undetermined.
- No School of Nursing and Allied Health representation at several key team meetings.

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UHS COE/Non-COE Group Key Points and Issues

Heart/Vascular/Stroke:

- Centralized outpatient facilities including case management programs for improved outcomes. A key expectation is a reduction in this COE's admissions
- Inpatient and outpatient facilities should provide space for case management, social services, counseling, and dietary
- All inpatient rooms should be private and developed using a four-bed pod concept
- Favors use of multi-level or universal bed concept

Adult Medicine/Diabetes:

- Centralized outpatient facilities including case management programs for improved outcomes. A key expectation is a reduction in this COE's admissions
- Development of a Diabetes Center Concept to include Eye Screening, Foot Care, Wound Care, Individual and Group Education, Nutrition, Hypertension Management, Anti-Coagulant Treatment
- Adult Medicine/Diabetes inpatients should be aggregated and not spread throughout PCMH's inpatient facilities
- Planning needs to consider assuring a local supply of elder care health care facility options: senior apartments/condos, assisted living, skilled nursing home

Cancer:

- Develop a comprehensive cancer care center serving adults and pediatric patients where all related services are provided through the center. Screening services to be community based and provided in a variety of settings with referral to the center.
- Decentralize pre-op testing within a Heart/Vascular/Stroke outpatient center
- Heart/Vascular/Stroke inpatients should be aggregated within the designated Heart Center
- Services to include a breast center

Women's Services

- Develop an Outpatient Women's Center including complementary medicine and ancillary therapies such as massage, non-surgical cosmetic treatments
- Inpatient GYN services need to decide if clinically most appropriate location is on a women's nursing t unit or oncology

Children's Services:

- Children's Hospital is currently a concept ; not a location
- Develop the West Tower for exclusive use for Women's and Children's Services and include a new (10 –bed) transitional nursery and Day Rehabilitation program for children
- Outpatient service expansion: *New* Services- Adolescent Psych, Peds area within the new ED.; *Existing Services*- Cleft Palate, Developmental Feeding, Spina Bifida, NICU Follow-Up, Child Abuse Evaluation

Outpatient Team:

- Envisions several clinically focused free standing facilities: ***Ambulatory Care Center*** with Urgent Care, After Hours Clinics, Diagnostic Imaging, Pre-Admission Testing, OP Pharmacy (non-retail), and DME ***Family Practice Center***- Wound Care Services, Diabetes Care, Elder

Care, Alternative and Complimentary Medicine Center
VIQUEST- Expansion of services identified prior to opening
Outpatient Rehabilitation- Cardiac Rehab, Sports Medicine, Return to Work, Pulmonary Rehab, Hand Therapy
Surgi-Center- Add endoscopy and additional pain management services
Lodge- Overnight facilities for families of cancer patients

Trauma/ED/Transport/Rehab Team:

- Team concerned that volume of traffic on Emergency Drive will negatively impact access to ED
- Rehab team believes Viquest Center sized too small and will need to be expanded shortly after opening.

OR/Surgery Committee:

- PCMH surgical services have significant operational issues that are in the process of being addressed. These include performance of outpatient procedures at both sites with resultant low utilization of the SurgiCenter relative to capacity, reported high turnover times and concomitant low efficiency of ORs, and lacks a fully implemented product standardization program potentially requiring more storage space and higher supply costs.
- Limited pre-op facilities reportedly results in reduce case throughput.

Information Systems

- Existing data center should provide for program's facility needs over the master planning time line
- Need additional space within PCMH to check-in, store, stage, and exchange lap tops and other info system equipment
- Band width limitations due to regulatory and provider hurdles (Sprint and Utility Commission) may impede growth of LAN and system capabilities
- Goal is to get right data at the right location, at the right time. Wireless technology may permit more facility flexibility by eliminating the 400' Ethernet maximum point to point range of wire-based data transfer

Infrastructure Team:

- Services that can be relocated include: Education, Admin., Business Services, Mobile Lithotripsy, Pre-Admission Testing, East Care
- Off-Site Relocation Candidates: Cabinet Shop, Power Plant, Fleet Vehicles, Campus Bus Service, Grounds Services (equip. and landscape materials), Parking Enforcement
- Plant Operations has significant storage issues
- Additional Space Requirements Comments: conference meeting space and family waiting space needed adjacent to patient units, provide family sleep space in all future inpatient rooms, provide a generic business center area for visiting UHS staff and family members, secondary grill area for visitors
- Sufficient patient/visitor parking needed by designated entrances
- Master Plan should not exacerbate material flow problems and simplify patient/visitor external and internal wayfinding.

Community Programs Team:

- Consolidate UHS community services' program in one location and provide sufficient parking for this program's mobile staff of 125 FTEs.

ECU Team Interviews Key Points & Issues

Research Team:

- Clinical sciences research is primary growth area in research. Facilities to support this need to be close to the Outpatient Center and PCMH.
- Faculty not expected to grow. However an increase in grants will increase the number of technicians, post doctoral and graduate students.
- Brody Building is sufficiently sized to meet Division of Health Sciences long term needs for primary wet research facility if administrative and clinical research functions are relocated.
- No representative from Nursing or Allied Health was present at this meeting.

Education Team:

- Impact of distance learning on the number and use of classrooms has not been identified by ECU.
- Minimum size classroom should seat no fewer than 20 students.
- An 800 seat theater-like auditorium has been recommended.
- Faculty and classroom spaces can be collocated and shared for efficient use of common functional space.

Clinical Operations Team:

- Centralize clinics (SOM, Allied Health clinics) with pedestrian linkage to Brody Building and PCMH. Ideally should share clinical ancillary D&T services between Clinics and PCMH.
- Clinic operations are expected to double within ten years.

Comparative Medicine:

- Space is adequate for foreseeable future. Life Sciences Building can accommodate space for a future transgenic core facility.
- Relocation of Allied Health to SOM campus anticipated to have only a minimal impact on Comparative Medicine facilities.

Core Facilities:

- Essential that faculty is surveyed about needs for future core facilities.
- No representatives from Allied Health or Nursing Services were in attendance at this meeting.
- Core facilities should not be located in the Life Sciences Building due to vibration and electrical interference issues.

Administrative Team:

- Currently experiences dysfunctional operations due to geographic dispersion based on space availability.
- Services can be decentralized if administrative services are co-located by function
- Division of Health Sciences space needs may be impacted by the ability of students to register on-line rather than in person.

Library Team:

- To encourage use library facilities should be equidistant to all Health Sciences facilities.
- It is foreseeable that the majority of library access will be through digital media. It is assumed that digital access to library resources will over time, reduce the need for new hard copy shelving, distribution, resource tracking, and document/text maintenance. There will always be a need for room to store historical materials, and materials that are too costly to convert to a digital format.
- Forecasts need for multiple computer classrooms.

Student Life:

- Apartment style student housing should be developed and sited very proximate to, if not connected to, educational spaces
- Campus should accommodate development of an array of varied student services including recreation spaces.

Information Technology Team:

- ECU and PCMH systems are not integrated. This will hamper efficient growth of both organizations if not remedied in the near future.
- Transition to wireless technology can redefine how work is completed and reduce functional adjacency requirements.
- Division of Health Sciences has not conclusively addressed the design of its future educational teaching model which is enabled by the use of technology. Information technology staff require direction regarding a future teaching model to respond to questions regarding the impact of technology on the operations of the Division of Health Sciences and its impact on the design of facilities.
- Key determinants shaping the extent of what can be achieved through IT are access and availability of capital to make necessary information technology investments given other competing needs in addition to a concerted effort by Division of Health Sciences leadership to support an increase in the level of faculty computer literacy.

cc: Bruce Flye
Heidi Higgason
Jerry Kinkade
Cyndi McCullough
Marc Sauve

East Carolina University
Health Sciences Campus

Rev. 8.25.00

Personnel

Number of Students Enrolled or Expected to be Enrolled in Health Sciences Schools on the Health Sciences Campus through 2009

Year	Nursing						Allied Health Sciences						Medicine					Expected to Attend Classes on Health Sciences Campus
	Undergraduate				Graduate	Sub-Total	Undergraduate				Graduate	Sub-Total	First	Second	Third	Fourth	Sub-Total	
	F	S	J	S			F	S	J	S								
94-95	-	-			102	523	-	-				409						0
95-96	-	-			110	627	-	-				410						0
96-97	-	-			100	568	-	-				438						0
97-98	-	-			102	500	-	-				487						0
98-99	-	-			121	553	-	-				531	75	75	75	75	300	300
99-00	-	-					-	-										
00-01	-	-					-	-										
2003	-	-					-	-										
2005	-	-					-	-										
2007	-	-					-	-										
2009	-	-	275	275	200	750	-	-	200	200	450	850	75	75	75	75	300	1,900
	36% total student increase from '99 to '09						60% total student increase from '99 to '09						No change from '99 to '09					533% Increase

Number of FTE Faculty and Staff in Health Sciences Schools

Year	Nursing					Allied Health Sciences					Medicine					Expected to Office on the Health Sciences Campus
	EPA / Faculty		SPA Staff		Sub-Total	EPA / Faculty		SPA Staff		Sub-Total	EPA		SPA Staff		Sub-Total	
	FT	PT(FTE)	FT	PT(FTE)		FT	PT(FTE)	FT	PT(FTE)		Faculty	Non-Fac.	FT	PT(FTE)		
94-95																0
95-96																0
96-97																0
97-98																0
98-99																0
99-00	73		19		92	63		17		80	387	17	966		1,370	1,370
00-01																
2003																
2005																
2007																
2009	90		25		115	100		28		128	400	20	1200		1,620	1,863
	25% total faculty/staff increase from '99 to '09					60% total faculty/staff increase from '99 to '09					18% tot. faculty/staff increase from '99 to '09					36% Increase

Nursing and Allied Health

Calculations

Overall University Enrollment 16,413 FTE

	Nursing	AH
1997 Student FTE's	554	547
Growth	152%	152%
2008 FTE's	844	833
110 Classroom Space		
1997 Student Clk Hrs	7885	11930
2008 Student Clk Hrs	12010	18171
Station Size	18	18
Weekly Room Hours	24	24
Station Occupancy Ratio	0.65	0.65
ASF Required	13858	20967
210 Teaching Lab Space		
1997 Student Clk Hrs	453	1222
2008 Student Clk Hrs	690	1861
Station Size	70	70
Weekly Room Hours	20	20
Station Occupancy Ratio	0.75	0.75
ASF Required	3220	8685
220 Open Laboratories		
1997 Credit Hours		1519
2008 Credit hours		2314
Converted FTE (CH/12)		193
Factor		.5
Converted FTE/Factor		39
Station Size	70	70
ASF Required	0	2700
250 Research Laboratories		
Faculty	49	63
ASF/faculty	120	120
ASF Required	5832	7501

Residential	
Current % of nursing student	20%
Projected % of nursing	40%
net nursing beds	338
Current % of ah students	12%
Projected % of ah	35%
net ah beds	292
projected % of medical resid	20%
net residents beds	50
projected % of SOM students	25%
net SOM student beds	100
Total beds	779
Standard ASF	150
ASF Required	116873

(27000 head count)

300 Office Space		Nursing			Allied Health		
Existing FTE		80			103		
Additional FTE		42			54		
Total FTE		122 Std		Space need	157 Std		Space need
Instr/prof	40%	49	275	13364	63	275	17189
Administrative	7%	9	190	1703	12	190	2190
technical/clerical	21%	26	140	3576	33	140	4599
GA's	17%	21	60	1253	27	60	1611
Students	15%	18	25	443	23	25	570
ASF Required				20338			26159

Student Support Facilities	
medical residents	250
basic sciences	100
clinical	300
allied health	833.2
nursing	843.8
total students	2327.02
Standard asf/Student FTE	12
ASF Required	27924

ah&n total gsf	195976.703
ah&n total asf	137184

Totals - Assignable Square Footage		
Faculty and staff (AH&N)	278	
Students (AH&N)	1677	
110 Classroom Space	34825	32%
210 Teaching Lab Space	11905	11%
220 Open Laboratories	2700	2%
250 Research Laboratories	13332	12%
300 Office Space	46497	43%
AH&N Program	**109259**	
Student Support Program	**27924**	**26%**
Residential Program	**116873**	

Ignore - no longer of Value

AH&N Program revisited
10/30/00

Number of FTE Faculty and Staff in Division of Health Sciences

Year	Health Sciences Library				Health Sciences Administration				?			Expected to Office on the Health Sciences Campus
	EPA / Faculty FT	EPA / Faculty PT(FTE)	SPA Staff FT	SPA Staff PT(FTE)	Sub-Total	EPA / Faculty FT	EPA / Faculty PT(FTE)	SPA Staff FT	SPA Staff PT(FTE)	EPA/ Non-Faculty	Sub-Total	Faculty FT	Faculty PT(FTE)	Staff FT	Staff PT(FTE)	Sub-Total	
94-95																	
95-96																	
96-97																	
97-98																	
98-99																	
99-00	14		24		38	0		26		9	35						73
00-01																	
2003																	
2005																	
2007																	
2009	?		?		?	?		?		?	?						?
	?% total faculty/staff increase from '99 to '09					?% total faculty/staff increase from '99 to '09											?% Increase

Number of Expected On-Campus Residents (Housing)

Year	Health Sciences Students	Other ECU Students	Others (Interns, Faculty, etc.)	Totals
01-02	0	0	50	400
02-03	200	150	50	400
03-04	225	125	50	400
04-05	250	100	50	400
05-06	275	75	50	400
06-07	300	50	50	400
07-08	325	25	50	400
08-09	350	0	50	400

Master Site and Facility Development Planning Parameters

for the

Division of Health Sciences Campus

September 11, 2000

Site

a. Direct and unimpeded access from Division of Health Sciences facilities to the Stantonsburg/10th Street corridor must be provided.

b. Utilize only currently owned ECU-Foundation property in preparing master plan solutions. Therefore ECU facilities will continue to be developed along northern sector of the master plan study.

c. The master site plan should incorporate a 'ring' roadway system or other methods to ease circulation, wayfinding and accessibility. *This is a bigger issue for pcmh, but it would still be good to see what it would take to have one*

d. The reconfiguration of existing on-campus roadways is worthy of consideration as one option for achieving the ideal master plan solution.

e. An additional 1,600 net NEW parking spaces for ECU use will be needed with full implementation of the Phase One scope. *Phase one consists of ah&n, library, family practice and infrastructure. Residence halls, other clinics and so forth follow. Note that 1600 spaces is believed to be the amount needed to accommodate the ah&n move; additional parking for family practice as programmed must also be accounted for.*

f. Phase One Implementation will accommodate the needs of the Schools of Nursing and Allied Health Sciences and the Health Sciences Library only, with minimal changes to the School of Medicine, Health Sciences Administration or the School of Medicine Clinics (other than Family Practice).

g. Construction of additional clinics, other than the Family Practice Center, will not occur until after the bond projects are completed and operationalized. *However, siting of phase I must be evaluated against siting opportunities that remain for subsequent phases.*

h. Avoid demolition of existing permanent structures that would have to be immediately replaced.

i. All buildings should have internal circulation / connections to one another; however, *this does not have to be a driver, and* other options could be considered in order to meet other or conflicting aspects of the plan.

j. The development of a parking structure(s) is an acceptable approach in meeting future parking requirements; however, meeting the needs with surface parking that takes advantage of the sizable amount of ECU owned property must be examined *first*.

k. The Health Sciences Library can be renovated / expanded in place or be housed in a new building.

l. Each of the Schools should have separate identities.

m. Preserve the capacity of the modular units, whether we move them, or replace them with permanent construction.

n. Forget the county office building

o. We own 350 acres. Why consider going 10 stories?

p. The big picture must be put in front of us.

Functionality

a. Hospital diagnostic and treatment core will remain in present location

b. *School of Medicine* Research will remain in Brody, Life Sciences and Biotech buildings

c. New and renovated facilities should incorporate a 'learning village' concept. *Common space is critical for cross-disciplinary interaction. Also required is a critical mass, so these spaces must occur where the people are.*

d. Spaces which could be cross-utilized and shared (i.e. classrooms, student services, etc.) should be located common to all Schools. *See note l.*

e. The Health Sciences Administrative offices may be relocated / consolidated to accommodate the Library expansion if adequate funding is available and the value of subsequent functional adjacencies are worth the cost. *See note l.*

f. The proposed Family Practice Clinic design and location will constitute the first phase of the future 'Medical Mall' which will eventually accommodate many of the existing and future School of Medicine clinics.

g. Future student housing will be accommodated on ECU owned property.

h. If Schools are located in separate buildings, the buildings should be sited and configured to allow future student commons and shared classroom expansion. *See note l.*

i. If School of Medicine classrooms' existing needs are not addressed by the Phase One design / budget, the design should include planning for future classroom expansion. *See note l.*

j. Pedestrian circulation, both internal and external to the buildings, should be configured to accommodate expansion of future buildings

k. Consideration should be made for additional food service to meet the increase in on-campus student / faculty / staff. ECU managers and their UHS counterparts will enter discussions on developing a campus-wide approach to the provision of food services based on patron requirements.

l. *Maximize use of space and bring people together. What are our option for doing that?*

Overhead Notes from HS Colloquium Discussion
September 27, 2000

- Shift mindset from "Health Care" to "Health"
- Adjacencies affect relationships; plan construction accordingly
- What is the interdisciplinary product?

  Learn together
  Investigate together
  Serve together

- Changes in Operational Models are inevitable
- Is there only Consequential Collaboration, or can we aim higher?
- Interdisciplinary Unknowns
  - Increasing Complexity
  - Co-Labor Issues
  - Role Differentiation

- Student Services can be thought of as a Binding, Unifying Element
- Transportation? – Becomes a factor in interdisciplinary discussion; can promote or hinder relationships
- Who – A Relationship Issue
  - Undergrads – Space is at E. Campus
  - Faculty issues/relationship aspects
    - governance
    - committees
  - Grad Students
  - Library Patrons

- Do we combine 3 schools into 1?
  - A true identity as 1; as in "An Academic Health Center"
  - Or 3 Identities sharing space?

- What's the relationship between Teaching Space and Research Space?
- Non-Departmentalized Space is a Prerequisite for Interdisciplinary Learning
- Student Services becomes a requirement for this critical mass
  Avoid Disenfranchisement

- Sharing Geography won't guarantee Interdisciplinary Learning
  What's in our heads has to change also

- Interdisciplinary to what extent?
  Geographically
  Functionally
  More complicated at Health Science Campus than on the East campus

- Bricks & Mortar and Distance Learning – Proper Mix?
- Preservation of connection to off-campus disciplines
- Short term learners on campus as one aspect of distance learning?
  Or a production facility?
- Run around flow
  Put patients first

- Bldgs have to facilitate colloration among disciplines
- What collaboration is there already between Undergrads & Professional Programs?.
  Have to start them early
- Faculties need to collaborate as well as students
- Opportunities for collaboration
  Ethics
  Service Projects

- Patients First - Clinics must relate to the hospital
- Beyond - Develop a sound Health Sciences campus
- Easily accessible space promotes interdisciplinary learning.
- Summer gross anatomy mixes curricula and works already
- Create something extraordinary
- Why here?
- Housing –
  - How much?
  - Not necessarily restricted to students/mentoring?
  - Who gets it?
  - Easiest place for collaboration?

- An alternative approach :Organize the campus by <u>function</u>, not discipline
- Think beyond traditional students – Think learners
- Don't let separate buildings create separation

Focus Group Highlights

Research Group

- Preference is to arrange labs by department, especially as Basic Sciences is rather small.
- Labs could easily be without walls
- Grant funding is expected to increase. History shows that grant receipts are proportional to applications and submissions. Expect a 25% increase over the next five years in Basic Sciences only. This would equal 12-13% growth in actual grant funds
- Clinical sciences is the primary growth area in research. Facilities to support this need to be close to the Outpatient Center and PCMH.
- There is a need for clinical trial beds and a clinical research center within the hospital. The hospital already feels it is 75 beds short and does not have space to allocate for such purposes. Setting up this kind of space is tricky because there are medical conditions that must be kept apart.
- If clinical research, administrative space and storage could all be moved elsewhere, there would be an abundance of wet lab space in the Brody Building. Much of the administrative space is non-research related. Lab space is adequate for the long haul if these conditions are addressed.
- Library adjacency is very good and there was some feeling that its use would decline if it were even two or three hundred yards further away.
- It is not foreseen that the faculty in SOM will grow. On the other hand, the number of technicians, post-doctoral, and graduate students is expected to grow. This growth will be based solely on grants/funding.
- It should be assumed that (wet) research will remain in the Brody Building. If Administrative, Storage and Clinical Research were moved into other facilities, Brody would supply ample wet research space to meet all of the foreseeable needs (per Bill Pryor). If these functions were moved, 10-15 more labs could be available for research.
- No representative from Nursing or Allied Health was present at this meeting.

Education Group

- How would we go about scheduling all of the space? We currently like to do large lectures in the morning, small groups in the afternoon. It would not be feasible for everyone to do that. When Clinicians/Physicians from PCMH are teaching (which happens often), they are usually only available after 1 p.m.
- There is a need for an 800-seat theater-style auditorium. This would be used for community events in addition to school uses.
- Student Study Spaces are in demand – for 24/7 studying. They could also use a "congregating room" with lockers, message boards. Could these possibly be part of student life/housing?
- Impact of distance learning on the number and use of classrooms has not been identified by ECU.
- Minimum size classroom should seat no fewer than 20 students.

- Faculty and classroom spaces can be collocated and shared for efficient use of common functional space.

Clinical/Outpatient

- Dr. Reinhart made a strong proposal on the Medical Mall concept working off the Family Practice Center. The idea is to move all the clinics out of the Brody Building ultimately.
- Connectivity is critical.
- There is a desire to centralize the clinics (Pavilion is even too far away – there is no café for staff, and patients have to be transported back and forth from PCMH for tests). In centralizing the clinics, the desire for a café, post office, daycare, etc. was expressed.
- Currently there is no marketing effort for the clinics. If a marketing effort were put forth, if employees got their care at ECU Physicians, or if the ECU campus decided to retain their services; any one of these factors would immediately put the clinic demand beyond its current capabilities.
- PROPOSAL:
    - Centralized facilities within discrete geographical location (Medical Mall – café, optical store, retail pharmacy, durable medical equipment sales, etc.).
    - Integrated/centralized clinical support services/facilities.Ancillary services (medical records, billing & reimbursement, patient services, group practice administration, nursing services) within proximity to clinical sites with adequate physical space.
    - Centralized diagnostic center easily accessible from clinic sites – X ray, laboratory, ultrasound, CT, MRI, etc. If centrally located, could be shared with the hospital. Would need to be flexible space for future renovation
- Centralize clinics (SOM, Allied Health clinics) with pedestrian linkage to Brody Building and PCMH. Ideally should share clinical ancillary D&T services between Clinics and PCMH.
- Clinic operations are expected to double within ten years.

Comparative Medicine

- Space is adequate for foreseeable future. Life Sciences Building can accommodate space for a future transgenic core facility.
- Relocation of Allied Health to SOM campus is anticipated to have only minimal impact on Comparative Medicine facilities.

Core Facilities Group

- Clinical Trials Support Research is very important, and PCMH currently does not have beds available for these trials (those beds intended for this use have been converted to hospital patient beds because of the high demand and lack of space there). The support is apparently already in place.
- Essential that faculty is surveyed about needs for future core facilities.
- No representatives from Allied Health or Nursing were in attendance at this meeting.

- Core facilities should not be located in the Life Sciences Building due to vibration and electrical interference issues.

Administrative Group

- Should all the administration be centralized or split?
- Right now many administrative groups are "dysfunctional" because they are geographically spread out over 3 or 4 locations.
- It is not necessary for all of the Health Sciences Administration to be located together; they just need to be clustered together according to function.
- We currently experience dysfunctional operations due to geographic dispersion based on space availability.
- Services can be decentralized if administrative services are colocated by function.
- Division of Health Sciences space needs may be impacted by the ability of students to register on-line rather than in person.

Library Group

- Study Hall space is needed on the Medical School campus, but should the library provide it? It works now because of the access to the reserve collection. Even so, the "library" shuts down and the study components stay open.
- We need some kind of food service adjacency at the library, and a place for consumption so there is no temptation to bring food in.
- Think about the learning village as a concept that encompasses the entire campus. You learn anywhere you are.
- Some faculty feel that library use would greatly decline if it were moved to a separate building, however, the future of computer access may change/affect that.
- To encourage use library facilities should be equidistant to all Health Sciences facilities.
- It is foreseeable that the majority of library access will be through digital media. It is assumed that digital access to library resources will, over time, reduce the need for new hard copy shelving, distribution, resource tracking, and document/text maintenance. There will always be a need for room to store historical materials, and materials that are too costly to convert to a digital format.

Student Life Group

- Transportation back and forth will directly drive the viability of East Campus use of West Campus Student Services facilities
- Should we be looking for collaboration with hospital on their facilities, such as their Rec Center?
- Apartment style student housing should be developed and sited very proximate to, if not connected to, educational spaces. We may end up housing only 250 students, but that is a lot if it's apartment style. Housing would be an off-balance-sheet operation
- There is confidence that married student housing would fill up, even if we look to the East Campus to reach capacity.
- Food kiosks might be an alternative, or a supplement to a prime dining facility.

- Maybe some of the student services are rendered in a "just in time" manner at the time of year they're needed. It might be that services fluctuate, but not the people if generalists were used. This may be more feasible for Juniors and Seniors than for med students.
- Childcare services will need to be provided for housing residents. Residents would have priority.
- Greenspace for children to play, interior courtyards, and playgrounds must be provided.
- Study areas should be located in the residential area, with cafes nearby for breaks.

IT Group

- Jack Brinn's vision of the future:
    - Palm Pilots are ubiquitous in the future
    - A meeting room is a place you walk in, plug in your Palm Pilot to a monitor with keyboard and web system access.
    - There is voice access.
    - In 18-months, students will be coming to campus with computers that have video cameras.
    - Video conferring is ubiquitous.
    - Physicians offices are almost broadcast platforms.
    - Data warehousing for people in facilities.
    - Data operations will make it difficult to distinguish clinical and basic sciences.
    - Students will be less willing to sit in a class for four hours. Anatomy is currently being taught online, and it is going well.
    - Many of the Basic Sciences courses could be subscribed to, rather than paying four faculty members for a semester.
- ECU and PCMH systems are not integrated. This will hamper efficient growth of both organizations if not remedied in the near future.
- Transition to wireless technology can redefine how work is completed and reduce functional adjacency requirements.
- Division of Health Sciences has not conclusively addressed the design of its future educational teaching model which is enabled by the use of technology. Information technology staff require direction regarding the impact of technology on the operations of the Division of Health Sciences and its impact on the design of facilities.
- Key determinants shaping the extent of what can be achieved through IT are access and availability of capital to make necessary information technology investments, given other competing needs, in addition to a concerted effort by Division of Health Sciences leadership to support an increase in the level of faculty computer literacy.

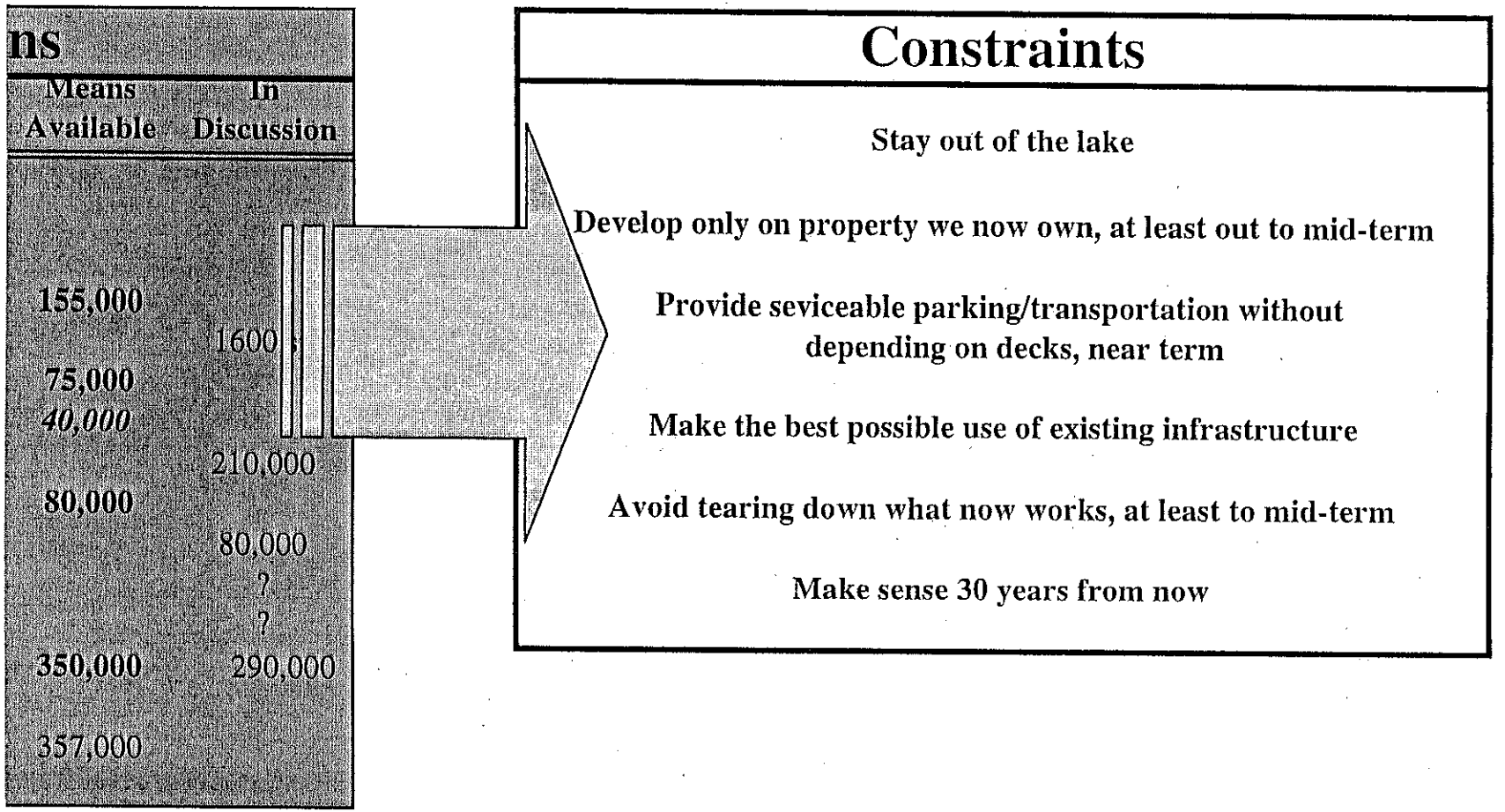
Census Figures for Parking Planning

October, 2000

Census Component	Current	2005	2010	Comments
Group Practice Personnel	288	320	351	Forecast based on staff growing half as fast as patient visits. Includes full time and temps
Allied Health and Nursing Personnel (Admin, faculty, clerical)	-	160	200	AH&N are not currently located on the Health Sciences campus. Significant growth is not possible until relocation.
Other Personnel (Admin, faculty, clerical)	1,262	1,325	1,458	Assumes 5% growth now to 2005, and 10% from 2005 to 2010
Med Students	300	300	300	
Allied Health and Nursing Students	-	1,150	1,600	AH&N are not currently located on the Health Sciences campus. Significant growth is not possible until relocation.
Annual Patient Visits	286,000	349,000	412,000	Per current HDR documents

Ongoing Tabulations

Growth/Change Items	Means Available	In Discussion
Allied Health & Nursing		
1100 students currently		
1700 by 2008		
190 staff/faculty, growing to 285	**155,000**	
Parking requirement doubles		1600 sp
Health Sciences Library expansion	**75,000**	
Student Services space	***40,000***	
Outpatient Services growth		210,000
Family Practice Center	**80,000**	
Student Housing		80,000
Grants/Contracts/Clinical research growth		?
School of Pharmacy		?
Total additional	**350,000**	290,000
Brody Building	357,000	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Means Available
In Discussion
155,000
1600
75,000
40,000
210,000
80,000
80,000
?
?
350,000
290,000
357,000
Constraints
Stay out of the lake
Develop only on property we now own, at least out to mid-term
Provide seviceable parking/transportation without depending on decks, near term
Make the best possible use of existing infrastructure
Avoid tearing down what now works, at least to mid-term
Make sense 30 years from now

	80,000
	?
	?
350,000	290,000
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Make sense 30 years from

Ideas and Initiatives

Growth of Clinical Sciences res

Auditorium that seats 800

24/7 studying and congregating

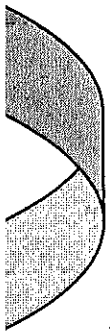
Medical Mall
- centralized patient services
- integrated clinical support
- centralized diagnostics (with PCMH?)

Colocate administrations by function

On-campus dining and munchies

Formalized student support & social space

Student/Married Student Housing



Brody Building 357,000

A Learning Village

Interdisciplinary

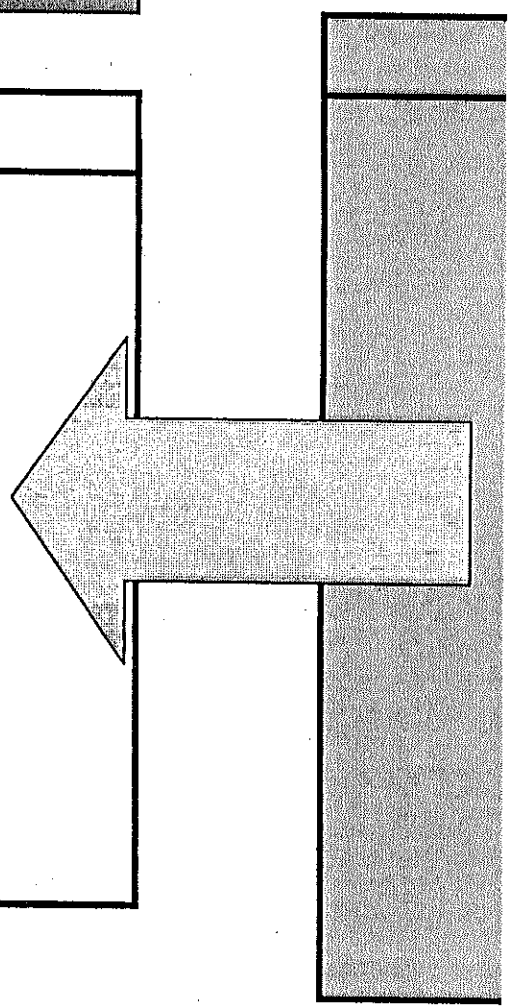
Collaborative
Faculty w/in & w/o department
Student w/in & w/o department
(but not grads w/undergrads?)

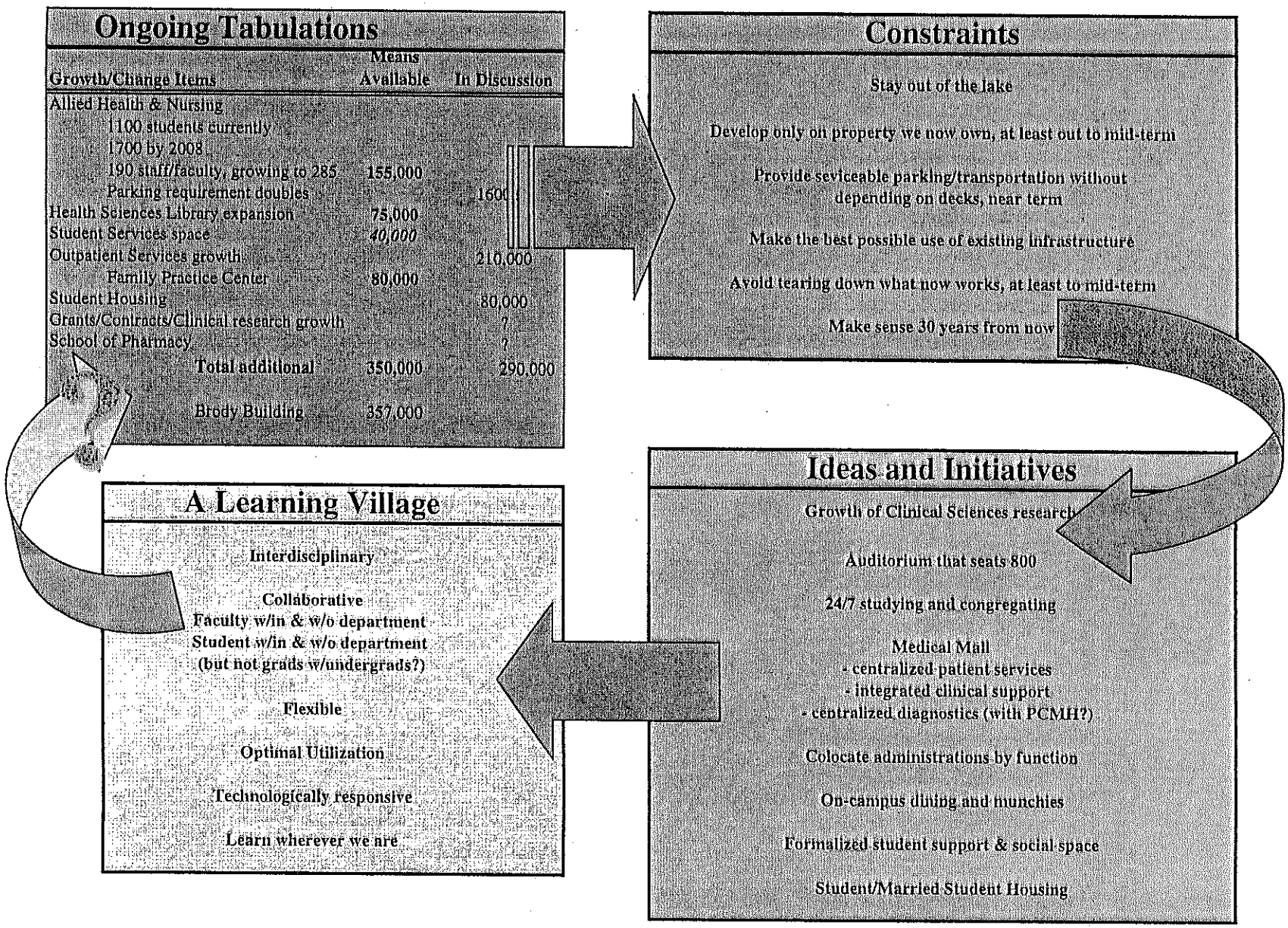
Flexible

Optimal Utilization

Technologically responsive

Learn wherever we are

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