

**Board of Governors
State University System of Florida
Facilities Committee Workshop, October 8, 2014
Q & A - in presentation order**

UNIVERSITY OF SOUTH FLORIDA

Morsani College of Medicine

Huizenga

Q: (Slide 1) This building seems to be the least efficient use of space of any I have reviewed. Typically in a commercial building the net usable space is 80-88%. The calculation for this building seems to be 66%. Please explain why the utilization of space seems so low.

A: The USF Health MCoM facility project has been designed using a 0.6 net-to-gross ratio, which is the ratio typically used in planning buildings of this type. This allows for wide corridors to support a high number of people moving through the spaces and provides adequate student-focused areas between programmed space. This ratio is similar to those used in designing other newly built medical schools in Florida.

Q: (Slide 2) So is the total project \$62,000,000 minus the \$20,000,000 generous gift?

A: No. The generous \$20 million gift from Carol and Frank Morsani is an estate gift and is in addition to the \$62M requested.

Q: (Slide 4) So USF Health can grow enrollment by 1000 students a year without this building and by 2,500 students a year with this building?

A: We estimate that we can accommodate an additional 1,000 students over the next five years without a new facility by leasing off-campus space. With a new facility, we could increase the number of on-campus students by approximately 2,500 over the same time period without leasing off-campus space.

This estimate is supported by regional, state and national projections that show the demand for healthcare education remaining steady or increasing during this time period.

Q: (Slide 6) Please define various health careers and please quantify how many more students.

A: The new facility will free up approximately 40,000sf that will be used to expand program offerings and increase access to various health careers. These careers include (but are not limited to):

- Physical Therapy and Occupational Therapy - These fields are recognized as the top two healthcare occupations undersupplied in Florida, both requiring a master's degree or higher (as identified by the Florida House Select Committee on Health Care Workforce Innovation). With new classroom, teaching and research lab space, the Doctor of Physical Therapy degree

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program could increase enrollment to 60 students per class (a 25% growth from recently expanded class of 48) and initiate a Doctor of Occupational Therapy degree program enrolling 32-36 students per class in a three-year professional degree program. As noted in former BOG Chancellor Frank Brogan's memo of approval for our USF/UWF Partnership Program, currently Florida's public and independent education programs fall short in meeting state workforce needs by about 100 new DPT graduates per year. The national demand trajectory for the Physical Therapist through 2022 projects an increase of 36% (73,500 positions); That demand growth is projected to be about 29% (32,800 positions) for Occupational Therapists.

- Pharmacy - Pharmacists working with primary care providers in Patient-Centered Medical Home models achieve improved health outcomes, leading to more productive careers. Clinical Pharmacy careers include Primary Care, Internal Medicine, Critical Care, Pharmacogenomics, Pediatrics, Community/Retail, Geriatrics, Cardiology, Oncology/Pain Management, Psychiatry, and Nutrition Support. By academic year 2016, the USF Health Pharm. D. Program will be producing about 100 graduates per year.
- Nursing - Florida is currently short about 50,000 nurses. There is a booming demand for nursing graduates, as well as for PhD and DNP nursing faculty to teach these students. To meet those needs, the National Institute of Medicine recommends that the percent of nurses holding a baccalaureate degree should increase to 80% (Florida is currently ranked 3rd in the country in shortage of nurses) and double the number of doctorally-prepared nurses by 2020. Although the current USF nursing building was designed for 1,000 students, currently more than 2,000 students are enrolled. During the fall 2014 semester alone, the USF nursing program attracted 431 qualified applicants to the pre-licensure nursing program, of which 331 (77%) were denied entrance, in part due to lack of instructional space. Additional classroom and teaching space, freed up by the vacated College of Medicine and renovated, would allow this program to accommodate current and future demand to meet workforce needs.
- Physician Assistants - this field is currently ranked 4th on the list of the top 15 healthcare occupations in undersupply, according to the Florida Department of Economic Opportunity. The USF Health PA Program will generate an additional 45 graduates per year at current program capacity.

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Q: (Slide 6) Which learning outcomes?

A: Enhanced classroom, teaching and research lab space, along with small group study rooms, would allow for additional simulation and study space and support a culture of active, applied learning. This environment is essential to educating millennial learners with the knowledge, skills and professional attributes demanded in 21st century healthcare practices.

Q: (Slide 6) How many more trained professionals with which degrees?

A: The new facility will free up approximately 40,000sf that will be used to expand program offerings and increase the graduation of trained professionals with the following degrees:

- The Doctor of Physical Therapy degree program could graduate 60 students per class (a 25% increase) and the proposed Doctor of Occupational Therapy degree program could yield 32-36 graduates per class (a 100% increase)
- The Doctor of Pharmacy degree program will graduate 100 students per class.
- The College of Nursing could admit 80 doctoral nursing students/year, 400 master's-level students and 800 baccalaureate students.

Q: (Slide 6) Please commit to the level of improvement in rankings that the state can expect in each of the sited programs and the timeline of the improvement in rankings. And what those fields average starting salaries are.

A: The new facility is expected to help maintain and improve national rankings for the following programs:

- The Morsani College of Medicine holds a Blue Ridge Institute for Medical Research ranking of 78th in NIH funding to U.S. Medical Schools for 2014. It is expected that with the requested enhancements and the expansion of NIH funded investigators, the college could break into the top 60 within five years.
- USF Health School of Physical Therapy & Rehabilitation Sciences is currently ranked 63rd in the nation (USN&WR 2012) out of 218 accredited physical therapy educational programs in the U.S. and one of only three Florida programs (along with UF and Miami) to be ranked in the top one-third. Enhanced space for teaching and research, along with our school's newly authorized PhD in Rehabilitation Sciences will catapult the program into a Top 50 ranking, alongside programs with 50 or more years of existence. Physical therapists' starting salaries average \$79,860 a year. Occupational therapists' starting salaries average \$75,400 a year (Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2014-15 Edition)

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- The USF Health College of Pharmacy’s current NIH ranking is 49th out of 133 programs. It is expected that joint research with the Morsani College of Medicine will propel the College of Pharmacy into the top-40 in 3-5 years. The average starting salaries for Clinical Pharmacists are about \$115,000 a year.

Hosseini

Q: What's included in the cost (construction, equipment, carpet, etc)? Please provide additional detail.

A: The project budget of \$62M includes all project costs related to the planning and construction of the Morsani College of Medicine facility:

Construction Cost	42,502,500
Site Preparation	1,000,000
Parking	2,000,000
Telecommunication	1,302,300
Electrical Service	250,000
Water Distribution	200,000
Sanitary Sewer System	200,000
Chilled Water System	150,000
Energy Efficient Equipment	250,000
Professional Fees	5,336,966
Fire Marshall Fees	92,678
Inspection Services	2,042,478
Insurance Consultant	162,788
Surveys & Tests	327,506
Permit/Impact/Environmental Fees	148,285
Artwork	100,000
Moveable Furnishings & Equipment	2,998,000
Project Contingency	2,936,500
	62,000,000

Q: Please look into partnerships.

A: USF leadership continually explores opportunities to create partnerships with city, county and community leaders.

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Levine

Q: What space will be backfilled on campus?

A: Approximately 40,000sf at the existing College of Medicine site will be available. Ideally, this space will be used to expand current program offerings in the Colleges of Nursing and Public Health at both the graduate and undergraduate levels and accommodate growth of future high-demand programs.

Q: How much incremental growth can be expected, realistically, once the building is up and running?

A: It is expected that USF Health will be able to grow their student body by 2,500 students (all levels) between AY14 and AY19.

Link

Q: When will decision be made regarding location of building (downtown or main campus)?

A: It is expected that the decision regarding location will be made within the next 60-90 days. President Genshaft and the leadership of the USF Board of Trustees have expressed a desire for the BOT to make a final decision at their regularly scheduled December 4, 2014 meeting -- should all the necessary data be available prior to that date. Nevertheless, the critical need for this project – as well as for extra space for other high-demand healthcare fields – exists regardless of location.

Tripp

Q: Do you want another campus downtown? And all the expense that go with that?

A: We are evaluating the potential academic benefits and challenges, the local and regional economic impact, and cost differential of relocating the college.

Morton

Q: Please provide a breakdown on what total costs cover and don't cover because the asking price is so great.

A: Please see the cost breakdown provided as part of the answer to Chair Hosseini's question above.

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St. Petersburg, College of Business

Huizenga

Q: (Slide 11) How many additional students are you anticipating that this building will house?

A: The USFSP Kate Tiedemann College of Business has grown since its 2003 founding to 1,200 students currently enrolled. Our student body comprises around 1,000 undergraduates and 200 graduate students. We anticipate growth to 2,000 total students within 10 years. Currently we accept just under half of the students who apply, evidencing our room for growth.

Q: (Slide 11) Please quantify the current National rankings and what you anticipate the increase in stature or ranking to be and when?

A: We are now ranked 91 for the online MBA in *U.S. News and World Report* and anticipate increasing this ranking to 60 within five years. Further, we are currently in the top 1% of more than 16,000 business schools worldwide, with both the undergraduate program and the Program of Accountancy having separate international accreditation with the Association to Advance Collegiate Schools of Business (AACSB).

Q: (Slide 11) Ranked 91st in online MBA with UF #3 FIU #27 FSU #43 why would a student pick your online program?

A: Serving the needs of the Tampa Bay market, this program allows students to take a combination of online and traditional classes according to their needs. In addition, this program is very competitive from a cost perspective with comparable programs at other private and SUS institutions. The costs of the other online programs are:

UF	\$59,696
FIU	\$42,000
FSU	\$30,426

The online program at USFSP costs \$18,360, offering the same international AACSB accreditation as the other schools. For those students who receive tuition reimbursement from employers, the maximum reimbursement is usually \$5,000 per year. Therefore, cost is a factor in selecting an online MBA program. Students also cite the small class sizes, specializations and the opportunity to work closely with faculty as key differentiators in their decision to pursue an MBA at USFSP.

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Q: (Slide 12) What is the timeframe for the MBA program to improve from 91st to 60th in the US News and World Report rankings?

A: We anticipate it will take no more than five years to achieve this improvement in rankings.

Q: (Slide 12) Why is this building necessary to ensure the success of new, distinctive Master's Degrees in Accountancy?

A: Our building's classroom design will fulfill the 21st century needs of the accounting profession. Employers expect new graduates to arrive with communication and team-based skills necessary to work in today's collaborative work environment. This is especially true for auditing and reviews, which are often conducted by small groups. The new building offers a learning environment that lends itself to team-based exercises, such as moveable chairs and tables, break-out rooms, mobile white boards, flexible computer options. The form speaks to function, helping to create a physical environment that works in conjunction with instruction to develop industry-demanded skills.

Q: (Slide 12) What are those new distinctive degrees?

A: The new degree program that is being offered in the Kate Tiedemann College of Business is the new Master's of Accountancy program. Entrepreneurship is another recent addition to our undergraduate program. This has proven to be a highly successful program for our students, many of whom have won national competitions in entrepreneurship skills.

Q: (Slide 13) Could the savings generated from the generous gift that you received offset the expenses incurred in the general fund and thus allow you to use those savings to pay for the building? Then there would only be a two million dollar shortfall for the building.

A: We are proactively trying to raise additional private funds to support our facilities, but this particular gift has been designated by the donor for academic support. Further, most of the funds are in an endowment -- one that spins off a small percentage, taking a long time to build up a sizable amount of funds. The restrictions in the endowment expressly forbid the use of any of its funds for construction.

Doyle

Q: Is the reutilization of space of faculty removed from existing spaces?

A: Once the new College of Business building is completed, the current spaces will be reutilized to accommodate existing and new faculty from other disciplines.

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Q: Any metrics on how other programs will grow based upon the additional space being available?

A: We project undergraduate growth of 5 percent and graduate growth of 9 percent with an overall 50 percent increase in high paying strategic programs over the next five years.

Levine

Q: Minority outreach and access?

A: We are working closely with local businesses, as well as with our schools to recruit a diverse body of USF students. We met recently with representatives from the Council for Quality Education for Black Students, with whom we are working very closely. We are looking at the projections of high school graduates for Pinellas County and beyond to study the shift in demographics and how it will impact our program. We are also working closely with City of St. Petersburg Deputy Mayor Kanika Tomalin, the Office of Economic Development, the Chamber of Commerce, as well as members of the proposed Innovation District for downtown St. Petersburg to expand our minority outreach.

Huizenga

Q: Rationale behind breaking ground prior to obtaining all funding?

A: The Legislature has appropriated, and Governor Scott approved, 55% of the total construction cost of this project over the past two fiscal years. It is customary for all state universities to begin facility construction when the majority of the funds for a building have been received from the state, so as not to delay access to the facility to students by waiting for 100% of the funds to be appropriated in subsequent legislative sessions and then beginning a 12-24 month construction process. However, universities are prevented by statute from contracting to expend more funds than they have on-hand to protect the state's financial interests.

Significantly, the large crowd that attended the groundbreaking ceremony on a rainy day this month was evidence of this project's wide support across the community. We believe that the excitement generated by the ceremony will help generate additional fundraising opportunities associated with the college.

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UNIVERSITY OF FLORIDA

Nuclear Science Building Renovation/Addition

Huizenga

Q: (Slide 5) Projected increase of 300 engineering degrees through retention and recruiting? Is this increase the university keeping other programs from stealing (UF's) top performers and is UF stealing others' top performers?

A: Only slightly more than half of freshmen who begin their academic program in engineering actually graduate with a degree in engineering. Most of this attrition occurs after the freshman year because freshmen do not get exposure to engineering projects and often leave for other majors such as business or social sciences. Based on the experience at other universities, adding a freshman design program will greatly reduce the freshman year attrition and improve completion rates in engineering. This building will also help to increase the numbers of engineering freshmen who matriculate at UF through enhanced visibility. Further, unless UF continues to provide state of the art engineering education facilities, the brightest students will leave the state to pursue their engineering education at other top universities. The competition for engineering talent is at an all-time high.

Q: (Slide 5) How much will STEM research in Biotechnology and Advanced Manufacturing increase?

A: We estimate that research in these areas will increase by \$10M over five years. This estimate is based in part on the addition of a senior faculty member in Advanced Manufacturing. This new facility will be key to recruiting the John and Mary Lou Dasburg Chair, who will greatly increase our ability to compete for federal funding in the manufacturing area. Increased funding is also expected based on the likelihood that co-locating faculty in these areas will result in improved competitiveness for larger, multi-investigator grants, as well as increased research funding from industry which will result from the industrial outreach component of the facility.

P.K. Younger Lab School

Morton

Q: Talking about STEM - I don't see healthcare mentioned in PK Younger, are you going to focus on med fields or just STEM?

A: All medical fields require a strong math and science foundation. P.K. Yonge prepares students to succeed in all science, technology, engineering, and math (STEM) related fields, including medicine. Recent research and national policy

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papers conclude that pathways to and success in STEM-related fields require deep knowledge and strong skills in science, mathematics, communication, and critical thinking. In response to Florida's challenges and future needs, P.K. Yonge has systematically enhanced and expanded science and math offerings over the past four years while also increasing student achievement for all students in math and science. Strategies for strengthening the K-12 math and science education foundation are specific areas of focus in the school's research agenda.

With support from the National Science Foundation (\$5M), P.K. Yonge with the College of Education leads Florida in transforming 6th-8th grade science education. Transforming 6th-8th grade science education is essential to maintaining student interest and engagement in medical-related fields. With support from the UF College of Education, transformative K-8 National Science Foundation mathematics curriculums are also being implemented, positioning P.K. Yonge to serve as a research-based and tested model for aspirational changes in K-8 math education. Such changes are necessary to reaching and teaching all students as well as becoming competitive with the highest achieving Nations in the world.

Specific to medical-related fields, P.K. Yonge offers a blended course (face-to-face + online) in Anatomy & Physiology. In addition, many juniors and seniors complete a work place internship in medical-related fields. High school gifted students participate in STEM Scholars (a state-funded project) which provides regular opportunities for high school gifted students to explore higher education opportunities in medical-related fields throughout Florida. P.K. Yonge added engineering coursework to 6th-12th grades and is committed to further developing pathways and experiences for students in medical-related fields. Design elements included in the new building will enable P.K. Yonge to seamlessly incorporate new curriculum and learning experiences for students specific to medical-related fields including guest lecturers (virtually in the distance learning labs; face-to-face in the first floor commons area and in the seminar labs), as well as innovative lab experiences in the new chemistry and biology labs. Collaborating with medical-related fields to design and test innovations in 6-12 curriculums will be enhanced as the school campuses (UF Medicine and P.K. Yonge) are being rebuilt at close to the same time. Given the school's proximity to the UF medical school and the new DNA Bridge connecting the campuses, further program enhancements will be easily realized in a state-of-the-art 6-12 building that mimics many of the same educative features included in UF's new medical school building. P.K. Yonge's mission is to design and test solutions to inform K-12 education in Florida. P.K. Yonge has an outstanding track record of sharing what is learned with Florida's educators to lead the way

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in school reform and welcomes the opportunity to develop, test, and disseminate new models to support medical-related career pathways.

Q: Is this a charter school or owned by the state?

A: P.K. Yonge's operating budget is funded by the legislature through the Florida Department of Education as a special school district. For 80 years P.K. Yonge has been directly affiliated with the University of Florida, and is currently listed as an auxiliary unit in the College of Education. All P.K. Yonge faculty and staff are employed by the University of Florida. P.K. Yonge is located on University of Florida property, is governed by the University of Florida, and regulated by the Florida Department of Education. P.K. Yonge is not a charter school. P.K. Yonge has been a school of choice for 80 years.

Norman Hall Remodel

Huizenga

Q: (Slide 8) How much additional capacity for externally funded research? Over what period of time?

A: The college currently has \$74.4M in active externally-funded research projects. The renovations would allow externally-funded research to increase to \$90M (a 25% increase) over a five-year period.

Q: (Slide 8) Your programs are already highly ranked, so which programs would move higher in the rankings?

A: With these renovations, the COE as a college would improve its ranking to be among the top 15 public universities in the nation (top 1% nationally). The college would have two programs in the top 5 (Special Education and Counselor Education) and four additional programs ranked in the top 20 (Elementary Teacher Education, Curriculum & Instruction, Educational Leadership, and Higher Education Administration).

Q: (Slide 8) Since this is a Historical building are there no federal funds available to preserve the same or donors that have a heart for old buildings?

A: We know of no federal funds that are available to support preservation or renovation of old buildings at the university. The college has many passionate alumni, donors, and community foundations that provide fiscal support to the college. These donors prefer to provide funding scholarships for meritorious students, academic programs in high need areas (e.g., early childhood and STEM disciplines), and professional development for educators and schools in their communities. Donors or foundations have not been identified for whom their gift or grant priority is building preservation/restoration.

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Q: (Slide 9) Can you please provide an estimate of the reduction in operating costs?

A: Similar to a performance contract; this would be considered an asset reinvestment. Operational cost would be defined as reduced consumptions (i.e., electrical, natural gas, steam) to generate utilities savings, avoided cost for capital replacement and avoided personnel cost (emergency maintenance)...5-6%. The life cycle of the equipment exceeds 20 years, which allows for reduced annual stewardship...traditionally, we have shortfalls in PO&M funding due to historical nature of many of our facilities.

Q: (Slide 9) Please estimate the dollar amount of critical deferred maintenance to be eliminated.

A: Approximately \$9.2 M Critical deferred eliminated (HVAC, Plumbing, Roof).

IFAS Academic Building

Huizenga

Q: (Slide 13) Does the recovery of 3200 hours a year lead to improved 4-year and 6-year graduation rates?

A: The logic related to degree completion would be that more capacity will allow for more sections and students getting the courses they need earlier in their program. While we make every effort to make sure space is available each term for students, who need a particular course to graduate, sometimes that isn't possible. The additional capacity will allow some students to finish early – which reduces the average time to degree and improves the overall graduation rates.

Q: (Slide 13) How many more preeminent faculty members can we expect?

A: The academic building and lab renovation will allow for 7 preeminence hires, 4 in our Microbiology and Cell Science program and 3 in our Plant Genomics program.

NEW COLLEGE OF FLORIDA

Land Acquisition

Huizenga

Q: (Slide 5) Were these all private residences?

A: Yes. In the beginning there were 9 private residences and 1 vacant private lot on 58th Street. Thus far the College has purchased 3 residences and the vacant lot with land acquisition funds previously appropriated and now fully expended.

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There are 6 remaining private residences to be acquired. 58th Street itself, which provides access to the residences, is owned by the State and maintained by the College.

Q: (Slide 5) Do you have signed commitments from these home owners to sell?

A: No, but the current owners know of our interest in purchasing the remaining parcels and are aware that our Campus Master Plan has identified the properties for acquisition. Our preferred acquisition method is to purchase the properties from willing sellers as opposed to the long, costly process of condemnation. One property owner has expressed interest in selling his home to us in the near future. A second owner also seems to be interested.

Unlike other capital appropriations, funds appropriated by the legislature for land acquisition are not subject to the 31 month reversion time clock. At present we have no land acquisition funds in hand. We hope to build up this funding source as soon as feasible so that we can act promptly in concert with the Department of Environmental Protection, Division of State Lands when a property owner decides to sell.

Heiser Natural Science Addition

Huizenga

Q: (Slide 10) Are the architectural drawings already done? If not, have you studied the utilization of the design with the goal of improving the percentage of net usable space?

A: No, there are no architectural drawings at this point, only a very high level building program that maps out the types and sizes of the new space we envision. We are currently going through the competitive selection process to hire an architect.

We fully support and agree with Governor Huizenga's encouragement regarding the building's efficiency with respect to as much net to gross square feet as possible. We were remiss in not clarifying that the 14,650 square feet reported in our request is the net assignable square feet that comport with the 10 space categories defined by the BOG's space file. This space file also accounts for net non-assignable square feet to capture support space such as restrooms, elevators, mechanical, custodial, electrical, IT/data and circulation (hallways, stairways, etc.) When we include this projected support space, totaling 4,372 net non-assignable square feet, it brings the grand total net square feet to 19,022 or 86.5% of the project's estimated 21,975 gross square feet, very respectable efficiency for a science building. These figures are only estimates at this point since no formal design is underway yet, but rest assured that maximizing net square feet (weighted in favor of net assignable) to gross is a top priority.

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FLORIDA A&M UNIVERSITY

Student Affairs Building

Huizenga

Q: (Slide 6) Please elaborate on how this building will enhance graduation rates.

A: Our goal is to focus on the quality and performance of students we have and increase retention/graduation rates through student support services. Providing optimal support services in a one-stop shop environment is a best practice in higher education that yields results in the form of increased student success. In adopting this proven practice, the services which FAMU proposes to house in the Student Affairs building include admissions, academic advising, financial aid, registration, student accounts, disability services, student health, student counseling, study rooms, and computer labs. The Student Affairs building is projected to increase retention rates by 5% and graduation rates by approximately 5% upon anticipated construction date of 2018.

Dyson Building Renovation

Huizenga

Q: (Slide 10) How many more students will utilize this facility? Leading to a percentage growth of how much in student success in stem disciplines?

A: A new facility will serve at least 5,000 undergraduate students per year in lecture and laboratory courses. Please note that the College of Science and Technology provides instruction in mathematics and general education science courses to **all** undergraduate majors at FAMU. Additionally, eight new research laboratories will accommodate an additional 32 graduate students per year. Furthermore, a new facility will increase the number of lecture and laboratory course sections offered each semester as well as facilitate focused recruitment and retention efforts. The new facility will also be able to accommodate enhanced academic support and advisement services. Additionally, the new facility will facilitate increased faculty use of active learning instructional methods. Altogether, the new facility will enable the College of Science and Technology to increase in its STEM graduates 20% by the year 2022.

Q: (Slide 10) What is FAMU's current position as a top institution for black science and engineering doctorate recipients? How many positions will you improve?

A: FAMU is currently ranked as the #3 baccalaureate institution of origin for black students who go on to earn science and engineering doctorate degrees (2013 NSF data). We project an improvement to the #1 position by 2020.

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Q: (Slide 10) How many black science and engineering doctorate recipients do you currently generate a year?

A: The College of Science and Technology generates an average of one physics Ph.D. degree per year.

Q: (Slide 10) How much will science and engineering research grants increase? And the increase in expenditures?

A: Research grants and expenditures in the College of Science and Technology are expected to increase by at least \$1M per year (projection is based on the productivity of 8 new faculty research laboratories that will each generate at least \$125K/year).

Q: (Slide 10) How many additional research doctoral degrees will you award annually?

A: We project that the new facility will lead to an increase of 2 physics Ph.D. degrees each year.

Q: (Slide 10) How will this renovation increase the employment opportunities for graduates?

A: Students will receive instruction and training in state-of-the art lecture and laboratory facilities, which will increase their competitiveness for employment. Additionally, students will receive instruction in active learning classroom spaces, which will enhance their critical thinking and problem solving skills. Academic support services provided in the new facilities will result in greater student success. The new facility will also help attract new corporate partners.

Q: (Slide 10) How many students graduate from this program and are employed in state on an annual basis?

A: The College of Science and Technology has approximately 1,100 undergraduate students, with approximately 110 Bachelors of Science graduates produced each year. The 2011-12 FETPIP data indicates that 48% of the graduates from the College of Science and Technology were employed in Florida.

Q: (Slide 10) Who are the universities current industry partners that would benefit from this renovation?

A: Current industry partners include:

- CSX
- Datamaxx
- JP Morgan
- Schwab

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- Nielsen
- Eli Lilly
- Diversitech
- Accenture
- Microsoft
- Uber Operations

Cavallaro

Q: What amount of space within the building is allocated for student space?

A:

Study Space, 7,000 NASF

- Reading/Study Rooms
- Production/Workroom
- Vending Equipment Area
- Entrance/Lobby/Card Catalog/Cir. Desk
- Reception
- Technical Processing
- Carrels
- Computer laboratory
- Adaptive Learning Lab
- Student Support System Academic, 982 NASF
- Meeting Room
- Machine Area
- Service Area

Hosseini

Q: Please provide a cost breakdown (land, parking, infrastructure, etc.).

A:

Student Affairs Building

Note: The cost per square footage is based on the construction without the land, parking, infrastructure, etc. is \$236 per GSF.

Basic Construction Cost

Construction Cost **16,762,977**

Additional/Extraordinary Construction Cost

Environmental Impacts / Mitigation 1,200,000

Site Preparation 300,000

Landscape/Irrigation 350,000

Plaza/Walks 1,200,000

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Roadway Improvements	1,500,000
Parking	1,400,000
Telecommunication	300,000
Electrical Service	200,000
Water Distribution	200,000
Sanitary Sewer System	200,000
Chilled Water System	900,000
Storm Water System	1,000,000
Total Construction Cost	25,512,977

<u>Other Project Cost</u>	
Land / existing facility acquisition	2,500,000
Professional Fees	2,000,000
Fire Marshall Fees	150,000
Inspection Services	250,000
Insurance Consultant	5,000
Surveys & Tests	200,000
Permit/Impact/Environmental Fees	250,000
Artwork	150,000
Moveable Furnishings & Equipment	3,700,000
Project Contingency	1,400,000
All Cost	36,117,977

Q: Please provide more detail of what this space will specifically be used for (how many offices, what kind, etc.).

A:
Student Affairs Building Space Allocation: OFFICES

Type	Space Designation	No. of stations
Room 1	Vice President Office	1
Room 2	Associate. Vice President Student Life & Dean of Students	1
Room 3	Associate Vice President for Enrollment Management	1
Room 4	Associate Vice President for Student Development	1
Room 5	Executive Assistant to the Vice President	1
Room 6	Administrative Assistant - Student Life	1
Room 7	Administrative Assistant -	1

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	Enrollment Management.	
Room 8	Administrative Assistant - Student Development	1
Room 9	Program Assistant	1
Room 10	Budget Manager	1
Room 11	Reception Area	1
Room 12	Conference	1
Room 13	General Supply Storage Room	1
Room 14	Faculty / Staff Office Spaces	18
Room 15	Staff Lounge	1
Room 16	Supplies	1
Room 17	Storage	1
Room 18	Learning Development & Evaluation Center Director	1
Room 19	Learning Development & Evaluation Center Assistant Director	1
Room 20	Faculty / Staff Office Spaces	10
Room 21	Student Union & Student Activities Director	1
Room 22	Student Activities Off. & Union Operations	1
Room 23	Clubs and Organizations Certification	1
Room 24	Clubs and Organizations Greek Life	1
Room 25	Union Operations	1
Room 26	Student Activities Office Operations	1
Room 27	Office Correspondence/ Visitation	1
Room 28	Student Union After-Hours Supervision/Coverage	1
Room 29	University Ombudsman	1
Room 30	Admissions Director	1
Room 31	Admissions E-mail	1
Room 32	Admissions Website/Online Application	1
Room 33	Admissions Applications/Deadlines	1
Room 34	Communication College Transfer/ Administration Evaluation	1
Room 35	Freshman Administration Evaluation/Communication College Transfer	4

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Room 36	Admissions International Student Requirements	1
Room 37	Admissions Limited Access Programs	1
Room 38	Readmissions	1
Room 39	Associate Vice President for Enrollment Management	1
Room 40	Faculty/ Staff Office	1
Room 41	Financial. Aid/Office of Student Concern/Complaints Director	2
Room 42	Financial Aid Title IV Director	1
Room 43	Financial Aid Federal Loans Director	1
Room 44	Administrative Assistant - Student Development	1
Room 45	Financial Aid State Program & Scholarships Director	1
Room 46	Financial Aid Federal Work Study Program Question Assistant	4
Room 48	Registration Desk Area	1
Room 49	Counseling Services Director	1
Room 50	Counseling Services Assistant Director	1
Room 51	Counseling Services Counselor	1
Room 52	Counseling Services Coordinator	1
Room 53	Counseling Services Evaluations Coordinator	1
Room 54	Judicial and Resource Services Coordinator Special Program	2
Room 55	Cashiers Area	1
Room 56	Cashier Office	3
Room 57	Student Accounts Associate Controller Office	2
Room 58	Student Accounts Coordinator Collections Office	1
Room 59	Student Accounts Coordinator, Perkins Loan Office	1
Room 60	Student Acct. Perkins/Short-Term Loan Office	1
Room 61	Student Accounts Receivable/1098-	1

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	T Office	
Room 62	Student Accounts Third Party Billing Office	1
Room 63	Student Accounts Refunds Office	2
Room 65	Student Accounts Coordinator Cash Management. Office	1
Room 66	Student Accounts Returned Checks Office	1
Room 67	Conference Room	1
Room 68	Division of Academic Affairs Associate Provost	1
Room 69	Division Academic Affairs Associate Vice President Institutional Effectiveness	1
Room 70	Division Academic Affairs Assistant Vice President	2
Room 71	Division Academic Affairs Assistant Vice President Fiscal Management	1
Room 72	Division Academic Affairs Coord/Prog.	1
Room 73	Division Academic Affairs Executive Assistant to Provost	1
Room 74	Division of Academic Affairs Executive Assistant	1
Room 75	Division Academic Affairs Coordinator/ Administration Services	1
Room 76	Division of Academic Affairs Administration Assistant Services	1
Room 77	Division Academic Affairs Office Receptionist/Office Manager	1

Huizenga

Q: Please provide more information regarding the use of the facility.

A: The Division of Student Affairs is dedicated to facilitating attainment of the objectives of the University. Its primary emphasis is centered on the principles of developing a well-rounded student involving the student's intellectual, physical, spiritual, leadership and emotional development. The completion of the Student Affairs Building construction is necessary to provide optimal services in a one-

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stop shop environment is a best practice in higher education that yields results in the form of increased student success. In adopting this proven practice, the services which FAMU proposes to house in the Student Affairs building include admissions, academic advising, financial aid, registration, student accounts, disability services, student health, student counseling, study rooms, and computer labs. Students can adequately maneuver through support services and have a venue for group and individual study leveraging technology to assist with retention, progression, and graduation in a multipurpose facility.

Beard

Q: Please provide a cost comparison to demolish/build new vs renovate Dyson?

A: Renovate	Total Construction Cost: \$22,651,500
	GSF: 57,500
	NSF: 36,101

New Building	Total Construction Cost: \$38,323,657
	GSF: 120,850
	NSF: 79,500

UNIVERSITY OF WEST FLORIDA

Building 58

Huizenga

Q: (Slide 6) How many additional STEM degrees? By when?

A: In 2010, UWF opened its newest science building which houses the physics, computer science, engineering and mathematics programs. The programs in this building experienced a substantial growth at both the graduate and undergraduate level. In the 2009-10 academic year, UWF awarded 116 bachelor's degrees and 26 masters degrees in the four programs. In the 2013-14 academic year, we awarded 179 bachelor's degrees and 67 master's degrees in the same programs. The data shows an average of 9% growth per year in bachelor's degrees and 27% increase per year in master's degrees awarded. Using this as a model, we estimate that UWF could award as many as 120 additional bachelor's degrees and 40 additional master's degrees in the programs associated with building 58. The programs in the new science and engineering building needed about 4 years to achieve this level of increased degree production.

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Q: (Slide 6) Can you quantify the increase in research activity?

A: For research activity, the College of Science, Engineering and Health has established four metrics to measure our research productivity – faculty/student publications, number of students participating in research, grant and contract award dollars, and student presentations at research conferences. For the programs involved in the building project, we have an established a goal of a 25% growth in four years for the metrics.

Q: (Slide 6) Please quantify the reduction in time to degree or the methodology.

A: Courses offered by the department of chemistry and biology are required for many majors across the UWF campus, typically as lower division courses are required for the upper division majors courses. Both programs are over capacity in the freshmen level courses. Thus, many UWF students cannot enroll in the courses when needed, and it extends the needed time to complete their degree. As an example, all freshman nursing majors must take anatomy and physiology during their first year; the courses are required for acceptance into the limited access nursing program. If they miss the courses in their first year, then they must take an additional year to complete the course before they can apply to the program. We estimate that roughly 10% of our students are experiencing this issue. The additional capacity with the building 58 annex will allow us to avoid this problem by adding more sections of these courses.

Q: (Slide 6) Please provide the percentage increase expected in the number of seniors participating in a research course.

A: Increasing undergraduate student participation in research experiences is a high priority for the College of Science, Engineering and Health. The College's goal is to increase participation by 50% within 4 years. Biology is the largest of the STEM programs at UWF, thus increasing undergraduate participation in this unit is critical to meeting this goal.

Q: Is there a possibility of adding to new vs renovating space?

A: Yes, the University will need 46,325 gross square feet of new space to fulfill the College's physical resource student learning space requirements that are currently all housed in the old building 58. That space can be added to the proposed annex. We will have complete documents to the BOG for an amended CIP. We would like to potentially renovate some of 58 in the future for other uses that will not be as expensive as replacing 44 laboratories.

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FLORIDA INTERNATIONAL UNIVERSITY

Strategic Land Acquisition

Huizenga

Q: (Slide 4) Do you have funding approved for any of these new buildings currently? If not are they designed?

A: This request represents the second year funding of a strategic initiative to expand the university and plan for the future. We do not have funding approval for any of the buildings and there are no designs. The buildings will be funded by a variety of funding sources including PECO, CITE, Auxiliaries, Research Overhead, and Philanthropy. We will also partner with the local community on opportunities for Economic Development funding. PECO facilities for academic space as well as facilities funded from other sources will follow BOG processes.

Strategic Land Acquisition

Huizenga

Q: (Slide 5) If you were granted the funds by the state to purchase the land and then to build these buildings, please elaborate on the percentage of increases to each of the points below.

A: We believe that over the development period, we would see an additional 10-15 percent increase in both graduate and undergraduate degrees in STEM fields as well the number of STEM graduates employed in Florida, especially South Florida. We believe that we would have a 20 percent increase in overall student retention and graduation due to the greatly expanded industry partnerships and internships as part of FIU's commitment to economic development. We would also expect an initial 20 percent increase in patents, licenses and start-up companies, with continued growth over time.

Strategic Land Acquisition

Huizenga

Q: (Slide 6) Does the request for \$50,000,000 include the cost of relocating the fair or only the acquisition of the land?

A: The requested \$50,000 includes the cost of relocating the fair as well as the land acquisition costs. This is our best estimate of the costs at this time. Our acquisition plan includes the 64 acres of the Fairgrounds that has minimal development. The remaining 22 acres contains the majority of the existing improvements on the site and is available for continued Fairgrounds and Tamiami Park use.

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Satellite Chiller Plant Expansion

Huizenga

Q: (Slide 13) Is there a reason why we could not phase these additional chillers in? Do we need to add all three at the same time?

A: We can certainly phase the program. Our request would be to do one chiller and two emergency power generators at a cost of around \$4.5 million. The additional two chillers can be added as funding materializes.

SIPA Project

Huizenga

Q: (Slide 16) What is the current ranking of the School of International and Public Affairs, nationally and globally?

A: SIPA is an Affiliate Member of the Association of Professional Schools of International and Public Affairs. APSIA is comprised of only 68 universities worldwide in which 34 are full members and 34 affiliate members.

Q: (Slide 16) How will the completion of this building allow the program to become one of the top five programs globally?

A: This request represents a strategic investment in one of our programs of excellence that is garnering international recognition. It will enhance SIPA's identity as a school, inspire its students and faculty and strengthen its capacity for delivering coherent academic programs, maximizing collaboration among SIPA's eight departments and 22 centers, institutes, programs and initiatives. Our departments include Economics, Public Administration; Criminal Justice; Modern Languages; Religious Studies; Politics and International Relations; Global and Sociocultural Studies; and History. Our major Centers/Institutes/Programs include the Latin American and Caribbean Center (a Title VI National Resource Center), the African and African Diaspora Studies Program (a Title VI Undergraduate Center), the Miami-Florida European Union Center of Excellence (currently 1 of 8 such centers in the United States funded by the European Commission), the Jack D. Gordon Institute for Public Policy and Citizenship Studies (an Intelligence Community Center for Academic Excellence 2005-present), the Academy for International Disaster Preparedness, and the Institute for Public Management and Community Service.

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Q: (Slide 17) Can you please share the research about collaborative spaces and how they impact graduation and retention rates.

A: Research over the last 15-20 years on graduation and retention rates have been exploring different factors affecting graduation rates among students that are non-traditional, e.g. working, first-generation in college, commuter, etc. Some of these factors include internship opportunities, better advising, peer tutoring and remediation in math and English courses, a growing body of work supports the non-cognitive approaches – like the feeling of community, belonging and the overall sense that the university wants the student to succeed.

Collaborative spaces play a role in developing a sense of community. From classroom setup where students can move tables and chairs into groups to small tables in open areas where students and faculty can gather to discuss topics from the classroom, these spaces offer opportunities for students to participate in connected learning which leads to a higher likelihood of persistence, (Tinto, V., *Colleges as Communities: Taking Research on Student Persistence Seriously*, *The Review of Higher Education* 21 (2): 167-177, 1998).

Because SIPA issues, like global issues such as human security, sustainable development and disaster preparedness and management, require interdisciplinary approaches to problem solving, students will develop better solutions from the collaborative setting, which leads to a higher quality learning experience.

In addition to graduation and retention, the collaborative learning model will also allow SIPA graduates to better integrate into their careers. Recent research in workplace collaboration indicates that there is a fundamental shift in that work today is done in collaboration with others versus individually. The research also shows that in today's workplace, collaboration is spontaneous and informal versus planned in advance. Therefore, when the workplace is designed to fully support the new realities of collaboration, better learning, more innovation and faster decision-making can result (Steelcase Inc. 2010).

Q: (Slide 17) How many students a year are graduating and working in this field annually?

A: This is very difficult to measure in aggregate because of how the different schools keep track of this data. APSIA estimates that 90% of the graduates of its full member schools engage in professional employment 6 months after graduation.

Q: (Slide 18) How many students start their own companies while still in school and forge strategic partnerships?

A: We recently began collaboration with the FIU College of Business, and it's Small Business Development Center (SBDC at FIU), to provide the platform and

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services which ensure that our current and graduating students will have strong support for starting and growing their businesses. These services include business plan development, marketing and business growth plans, access to capital, counseling and support on government contracts (local, state and national), opening international markets and supply chain opportunities for our students and developing markets for services and products in the US and globally. We will have SBDC at FIU business consultants housed on-site, in SIPA facilities, to support this effort and work with our students. We expect a robust response from our students to this collaboration and we will report data in the near future.

Q: (Slide 18) Please quantify the amount of private dollars you expect to attract and the timing of the same.

A: Approximately \$50-80 million over the next 10 years.

Q: (Slide 19) The funding that was received - are these restricted funds?

A: The funds are restricted for the building and endowment for student scholarships and a speakers' series.

UNIVERSITY OF NORTH FLORIDA

Land Acquisition

Huizenga

Q: (Slide 6) When you state total size of proposed land purchase as 237 acres, you also state that 48 acres have been previously acquired and that the remaining land to be acquired is 189 acres. Can you please clarify this statement?

A: The 2006 Legislature appropriated funding for UNF to buy this parcel of land, and within days of the close of session, AOL left Jacksonville and their 2002 building was put on the market for sale. With legislative and cabinet approval, the land purchase funding was reverted and used to purchase the AOL facility. UNF then bought the three remaining facilities on this parcel. The 48 acres previously acquired represents the land associated with the purchased facilities, leaving a remaining 189 acres to acquire the entire parcel.

Q: (Slide 6) Please explain how student headcount will grow by slightly more than 50 percent but that degrees produced will grow by over 200 percent during the same time period.

A: The question has been asked how we grow enrollments from 16,258 to 25,000 (54% increase) in the next 10 years, but the number of degrees awarded goes

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from 3,727 to 8,750 (135% increase). As we grow in size, we are also committed to increasing graduation rates.

Projected headcount in 2024-2025 is broken down as 2,500 graduate students (10% of the headcount); 12,200 native students (49% of the headcount); and 10,300 transfer students (41%),

Each year we would graduate:

- 900 graduate students (some will take 1½ years while others will take up to 5 years with the overall 5-year graduation rate at 90%);
- 2,400 native students (a few will complete in 3 years because of credits they bring from high school while some will take up to 6 years. An estimated fluctuating total grad rate from 75 to 80%);
- 4,588 transfer students (some will complete in less than 2 years others will take 4 years with an estimate 85 to 90% graduation rate).

Total number of graduates = 8,750.

Skinner Jones Hall South

Huizenga

Q: (Slide 13) Can you please clarify the variance in net assignable square footage 66,000-100,000.

A: At the time of the presentation (October 8th), UNF was studying the very issue of concern to the Board members when dealing with substantial renovations and remodeling of older structures: whether the most efficient, effective and responsible use of limited state resources supports a tear-down and/or new facility vs. improvements to the old structure. The variance reflected the construction options on the table at that time. Completed studies have concluded that the best course for the maximum use of Skinner-Jones Hall South is to both renovate 59,000 gross square feet and to add 48,000 gross square feet in new space, yielding a total of 107,000 in total square footage. The total net assignable space is 70,052 square feet.

UNIVERSITY OF CENTRAL FLORIDA

Interdisciplinary Research and Incubator Facility

Huizenga

Q: (Slide 2) The research funding increase - are these external funding dollars as well? If the answer is yes, when will the additional \$20,000,000 per year of additional external research dollars begin?

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A: Within three to five years of the building's completion, UCF will realize \$20M per annum in new, external Research and Development funding. UCF's ability to vie for and procure prime research grants will be dramatically increased with the physical availability of new space where research can be performed. UCF will be in the position to compete actively against other institutions that currently have state-of-the-art research facilities. As grant funding typically takes one year to secure, we plan to submit extensive proposals in anticipation of acquiring the new space. We expect a moderate influx of funding in the first year of operation, with accelerated returns reaching \$20M per annum shortly thereafter.

Q: (Slide 2) With the addition of roughly 20 new patents annually, would your ranking increase from ninth in the nation?

A: The eight top-ranked research universities are working judiciously and strategically to maintain their prestigious, well-earned standings as top patent producers. UCF's ranking depends not only upon our forward-thinking actions, but the spirited rivalry among research universities nationwide. We can expect the number of patents granted to increase with additional research facility space, but concurrently other institutions are investing in facilities and faculty as well. Research institutions ranked ahead of us are not looking back, and those behind us are investing even more funding to surpass us. It is with pride that we hold our ninth-place ranking, but without investment in facilities and faculty we will be pressed to maintain this status or move up in the rankings. The programs slated for this facility typically produce significant patents. Past experience has shown that quality research facilities generate \$400 to \$500 per square foot per year in external funding, and each \$1M produces about one additional patent per year.

Q: (Slide 2) Where are these programs currently being taught? How much space do they occupy? What happens to that space?

A: UCF is currently at 50% of the research space recommended by the state, using the state's formula for calculation. Some leading-edge research has been postponed or cannot be performed at all. Faculty lines in critical areas engineering, nano-science, and mechanical sciences, cannot be filled because of the lack of space to house their research. In many instances, recruited faculty have not been provided laboratories upon their arrival, further weakening our ability to compete for grants and recruit new top-notch researchers. Other critical research is being performed in leased space that is less desirable due to space limitations, sub-standard accommodations, costs, and distance from the campus where the programs are taught. As an example, in one location, we

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have a men's room housing the heat exchanger to cool the instruments, which means that the door can't be closed, and privacy cannot be ensured.

UCF is competing for the best and brightest faculty, and successful recruitment is impossible without facilities. Our programs and research activities are limited by space, as top researchers have their pick of world-class facilities at other institutions. Top recruits desire two things: state-of-the-art facilities whereby they can develop their research to the fullest, and the ability to work on nationally competitive teams.

Until research space can be acquired or built, UCF will have to continue to less than optimal facilities at a high cost. When faculty move out of leased space, we will no longer need to rent the space and can invest further in research.

Q: (Slide 3) Please provide additional details about the building itself (i.e., gross square footage versus net usable square footage).

A: Using a net-to-gross ratio of 1:1.5, with gsf on the order of 118,000 sq ft., net assignable would be 78,000. Because labs require more space for ventilation requirements, equipment, safety, etc., realistically, the ratio is more likely to be 1:1.75, which would equate to 67,500 net assignable feet.

Space comprising 27 research labs, 19 material characterization rooms, 21 incubator labs, lecture halls, conference rooms, offices, and ancillary spaces are planned. The new space will create a place where collisions occur between faculty, researchers, entrepreneurs, investors and industry. Labs will be configured for accelerated scientific discovery in a collaborative environment, with ease of reconfiguration based on projects and evolving research requirements. The facility will also house startup incubator companies and promote other industry collaborations.

Colburn Hall

Huizenga

Q: (Slide 17) Please explain which part of the building is being remediated and who is occupying the building now.

A: The entire building must be renovated to remediate issues concerning structure, building skin, mechanical/electrical and life safety.

Structure:

Reinforcement is needed throughout the structure to extend its useful life. Structural backup walls are unreinforced 4" or 6" CMU and must be replaced or reinforced with steel angle frame to meet current wind loads. A lateral analysis of the building determined that the web and chord members of the joist girders, and a significant number of tack welds in

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miscellaneous steel require reinforcement. All windows on the project are not tied back to structural members, and steel framing, in particular below exterior corridors is corroded.

Building skin:

Significant deterioration of the exterior façade requires removal of the exterior brick and rebuilding of the building's skin. There is no vapor barrier on the building and the brick was installed over ½" gypsum sheathing, resulting in serious deterioration of the sheathing and continual moisture intrusion. Bricks throughout were not properly installed: numerous brick ties are missing and shelf angles are not in place at the tower portion of the project creating compression and corrosion issues. Significant cracking is evident throughout the exterior facade.

Mechanical/electrical:

The building systems offer an array of challenges: the HVAC system is past its useful life and requires frequent repair to maintain operability, and the inefficient boiler fails on a regular basis. The plenum air return system adds to the building skin issues as it draws in excessive moisture through the exterior skin, both harmful to the waterproofing of the building and its occupants. The ductwork is internally lined which is not acceptable by today's standards. The building's emergency lighting needs to be powered by dedicated electrical circuits.

The building is currently occupied by:

- Africana Studies
- Center for Humanities and Digital Research
- College of Arts and Humanities Advising Office
- College of Arts and Humanities Tech Office
- English
- Graduate Student Center
- History
- Judaic Studies
- Latin American Studies
- Modern Languages
- Texts and Technology
- University Writing Center
- Women's Studies
- Writing and Rhetoric

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UCF must construct a new space to house Colbourn Hall's occupants, as there is no existing space in which to move these departments and programs during a major renovation. When renovated, Colbourn Hall will house new faculty hires in multiple disciplines, to include Math, Science, and Engineering fields.

Link

Q: What is the anticipated enrollment growth for downtown project?

A: At the end of simultaneous phases I and II (Fall Semester, 2017), 6,000 students are anticipated (2,000 Valencia College and 4,000 UCF). At the end of phase III (Fall Semester, 2018), another 6,000 students will be added, for an approximate total of 12,000 students.

Huizenga

Q: Are there P3 opportunities?

A: UCF has had preliminary conversations with a number of potential private partners. All involved believe that there are opportunities for P3 synergies, and we are exploring these possibilities in detail.

FLORIDA GULF COAST UNIVERSITY

Academic Building 9 - also known as STEM Lab Building

Huizenga

Q: (Slide 8) Has academic building 9 been approved?

A: Academic 9 (the STEM LAB Building) has not been previously approved by the BOG and therefore we are requesting the planning funds. Previously, the Building was approved as required by the Educational Plant Survey Team and by our own Board of Trustees. It has been included on our CIP List as well as our LBR for several years.

Q: (Slide 13) The ratio of usable square footage versus total gross square footage is 66 percent. In a traditional commercial building, utilization is 80-88 percent. Is there a way to increase utilization of the proposed building?

A: Yes, the utilization ratio may be increased, but there are reasons why the ratio is lower here than what is typically seen in commercial buildings. Our building will see a large influx of students and faculty during class activity, requiring larger corridors and restrooms. The higher occupant load of this educational use will also increase the ventilation load of the building and therefore the mechanical room sizes. Academic buildings also incorporate student collaborative spaces, not typically documented as program space, leading to a

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lower utilization ratio on paper. However, the utilization ratio may be increased with strategies such as the use of exterior corridors where possible and more accurately documenting circulation space as true student study space.

FLORIDA POLYTECHNIC UNIVERSITY

Applied Research Center

Huizenga

Q: (Slide 3) Please explain how this building is essential to retention and annual growth toward the statutorily mandated 2016 enrollment goal when the building will not be complete until 2018?

A: The Applied Research Center is important to our efforts to retain students for three reasons. First, students attending now and those who enroll over the next three years need to see continued progress in building the university. Second, recruiting and keeping high-caliber faculty are an essential part of retaining our students and that will only be possible if we have top notch research facilities. Third, the university has a research focused curriculum, beginning in the freshman year, which is an important factor in retaining engineering and technology students. Therefore the Applied Research Center is needed to provide adequate teaching labs in addition to the much needed research labs. The university's inaugural students and those enrolling over the next few years know that not everything is in place today. However, they are expecting that the university will continue to build the additional research facilities, classrooms and offices necessary to have a top quality institution. Retention of existing students, as well as recruitment of more top tier students, depend heavily on our ability to meet those expectations. Construction of the Applied Research Center reassures students that Florida Polytechnic is not a stagnant institution and is building facilities to accommodate future education needs. Therefore they are willing to accept a certain amount of inconvenience in the interim. Additionally, incoming students (Fall 2015-Fall 2017) need evidence that the university is building infrastructure to accommodate their learning.

In addition to providing facilities for student learning, progress on building the Applied Research Center is a key component for attracting faculty between Fall 2015-Fall 2017. Attracting and retaining quality faculty is just as important as having outstanding facilities because top notch faculty attract top students. We can attract top faculty between now and 2017 if we can demonstrate that the research facilities they require are to be constructed in the near term. Recruiting and retaining those top faculty will go long way toward recruiting and retaining the top tier students that the university enrolls. If students are being led by top

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faculty they will be confident that the programs and facilities at Florida Polytechnic will continue to meet their expectations.

The research focus of Florida Polytechnic's curricula is one of the key components to recruiting and retaining top tier students. Building the Applied Research Center is essential to continuing that focus by providing the necessary research labs and teaching labs in which our faculty and students will collaborate. Florida Polytechnic's research focused curricula is unmatched in other SUS institutions and serves as a model approach to attracting and retaining STEM students. It will allow the university to greatly improve on the 50%-60% retention rate of STEM students and allow us to continue attracting the top tier students that will make a difference for the future of Florida's economy. If the university is unable to construct the Applied Research Center, it becomes extremely difficulty to recruit and retain the top notch students and faculty that lead to graduates who are ready for work and the ability find solutions to practical problems that are important to high tech companies and to the state's economy.

FLORIDA STATE UNIVERSITY

EOAS Replacement/Expansion

Huizenga

Q: (Slide 4) How many new STEM degrees and how much additional external funding will be generated as a result of building the EOAS building?

A: We expect a total increase of 200 new STEM degrees; however approximately half will be from programs housed in the building associated with Earth, Ocean and Atmospheric sciences; 50% additional external funding.

Q: (Slide 4) The 250 percent increase in EOAS majors since 2010 - is this a nationwide statistic or an FSU statistic? How many majors were there in 2010 and how many students graduate with a degree or a concentration in this field?

A:

- This is an FSU statistic.
- 2009-10: 156 EOAS majors and 35 degrees.
- 2013-14: 412 majors and 109 degrees.
- So, the increase in majors is about 177% and the increase in degrees is about 202%. Stated another way, the number of majors grew by a factor of 2.77 and the number of degrees grew by a factor of 3.02.
- These are undergrad majors only.

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- Student enrollments in geoscience departments tend to follow the economic trends of the geosciences. Since 2007, enrollments have been increasing due to the high job availability in many of the geosciences industries.
- FSU added the Environmental Sciences degree in 2009 which has contributed significantly to the growth in majors and degrees.

Q: (Slide 5) Please define considerable demand and provide average position pay.

A:

- Enrollments at four-year universities have increased by 39% between 2001 and 2011 to 13,494,131 students, and they are projected to continue increasing to 15,203,399 students in 2021. For the geosciences, undergraduate enrollments were increasing steadily from 2007 to 2012 reaching 28,570 students. Graduation rates for doctoral students remain steady hovering between 600–700 students a year.
- There were approximately 340,000 geoscientists employed in the United States in 2012. Over the next decade, 48% of the workforce will be at or near retirement. However, while there will still be a predicted shortage of around 150,000 geoscientists, this number is less than previously predicted. People associated with the geosciences have recognized the future shortage of qualified geoscientists and are working to increase the supply of geoscientists for the future.
- Starting salaries for recent bachelor's graduates with a geoscience degree range from \$30,000–\$70,000, from \$30,000–\$120,000 for master's graduates, and \$30,000– over \$120,000 for doctoral graduates depending on the industry.

Q: (Slide 5) What is the current ranking of the program nationally and what will it become in the next five years if the project is funded?

A:

- Meteorology and Oceanography are nationally in the top 10 programs nationally.
- There has not been a geology ranking in well over a decade but the last FSU self-study showed geology ranked 5th nationally in productivity metrics when normalized per faculty member.
- Many programs have more than 5 times the number of geology faculty and twice the number of meteorology faculty for the same number of students.

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Q: (Slide 5) Please quantify the current program ranking/stature and what you believe the ranking of the program will become and when.

A: We expect these rankings to be maintained or increased. It will be difficult to maintain the rankings without an increase in resources.

Q: (Slide 6) Please provide more information on the building design and the utilization of the building (i.e., gross square footage versus net usable square footage).

A:

- Total gross square footage totals approximately 141,000.
- Total net assignable area totals approximately 86,000.

Q: (Slide 8) Please quantify the additional number of STEM degrees in high growth areas that you expect to produce annually.

A:

- In 2012-13 FSU awarded 1452 undergraduate STEM degrees
- Based upon the continuing increase in enrollment we expect this number to increase by 19% over the next two years.

Q: (Slide 8) How far towards the goal of top 25 does this building take you? From where to where?

A: The building will indirectly help us in our goal to reach the top 25. The rankings consider average GPA and SAT score of our entering freshmen. Students interested in STEM fields usually score better on these tests. Having a new state of the art STEM Teaching Lab building will help us attract more students in STEM areas. The new STEM Teaching Lab building will free up space in existing buildings to hire more faculty in the STEM areas. This too is critical to increase in the rankings. Additional STEM faculty will result in increased contract and grant funding that is also a measure used in the rankings.

Q: (Slide 8) Please try and quantify what a large fraction of teaching activities equates to in number of teachers and the space that will be freed up as a result of the same.

A: The new STEM Teaching building will replace 44,000 net assignable square feet of teaching labs. The average faculty office is 220 NASF. We should be able to place approximately 200 faculty into the freed up space in other buildings.

Q: (Slide 9) Please define the workforce needs.

A: There is a need for increasing the number of STEM graduates to fill gaps in the workforce. Hands on experiences in teaching laboratories and in small recitation sections are critical in the pedagogy of contemporary STEM education. FSU is greatly deficient in space for such educational experiences. Furthermore,

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STEM education crosses disciplinary lines. Thus, having a centralized facility will allow different academic units to more easily collaborate in developing experiences that cross disciplinary lines.

Q: (Slide 10) Please provide more information in regard to building utilization. Gross square footage verses net usable square footage.

A:

- Total gross square footage totals approximately 72,750.
- Total net assignable area totals approximately 48,500.

Interdisciplinary Research and Commercialization Building

Huizenga

Q: (Slide 13) Please quantify significant growth in contract and grant activity.

A:

- 24 groups will be assigned to the building.
- Each group will average attaining approximately \$225,000 in external grant funding per year.
- Estimated external research to be conducted in the facility totals approximately \$5,400,000 per year.

Q: (Slide 17) How is the FSU Research Foundation funded?

A: The Foundation is primarily funded through license and royalty income and other investment revenue.

Q: (Slide 17) Please provide more information on the ratio of Gross square footage versus net usable square footage.

A:

- This research facility will be highly specialized and include a clean room (5,000 nsf) and a core imaging/characterization lab (4,000 nsf)
- Total gross square footage totals approximately 116,000.
- Total net assignable area totals approximately 64,000.

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FLORIDA ATLANTIC UNIVERSITY

STEM/Life Sciences Building

Huizenga

Q: (Slide 3) What is the time frame for the Ph.D. program in Integrative Biology and Neuroscience to become a nationally top ten program in neuroscience?

A: We would work to make the Integrative Biology and Neuroscience (IBAN) program a top-ten program by 2025 – the timeline of our next strategic plan. We would use the National Research Council rankings for the Research Doctorate which is developed nationwide approximately every ten years, and administered by the National Academies. We will need to add top-notch faculty in the next several years with cutting edge research programs to train these PhD students if we are to meet this goal. Close cooperation with the Max Planck Institute and Scripps Florida will help us achieve this goal. Scripps' two PhD programs, in Biology and Chemistry are currently ranked in the top-ten of science programs in these disciplines by US News and World.

Q: (Slide 3) Is its success predicated on the renovation of this facility?

A: As mentioned in the previous answer, we will add new world-class faculty to our programs in Jupiter who will be as good as those faculty at Max Planck and Scripps, and this renovation/new building will be needed to locate their research labs and offices, as well as to provide state-of-the-art teaching labs. The success of the IBAN program will be greatly enhanced by this building, and the overall success of our initiative to create a STEM Honors campus in Jupiter is predicated on the renovation/new building on the campus.

Q: (Slide3) How many students would benefit by such a program and are there jobs for those students in Florida?

A: We expect the IBAN graduate program to grow steadily to about 100-150 students by 2025. However, additional STEM graduate and undergraduate programs are planned for the Jupiter campus as we build new STEM programs on that campus. By 2025 we expect the student number on the Jupiter campus to be approximately 3000. Clearly, students graduating from the IBAN PhD program will be highly employable within the SUS as faculty, as well as at private universities such as University of Miami, at the various research institutes such as Max Planck, Scripps, Torrey Pines, and VGTI in our local area but also at other research institutes in Florida, eg Burnham in Orlando, and beyond. Additionally, as the biotech industry grows in Florida, these students will be suitably trained for industry (established and spin-outs) involved in biomedical research especially those in drug discovery for treatment for diseases

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of the nervous system, such as neuro-degenerative diseases, psychological/mental diseases and cancer.

Q: (Slide 3) When will the new plan be ready? And what is the driving force for the change?

A: The President presented FAU's BOT with a pathway to develop a revised Strategic Plan for FAU at the BOT's retreat in September 2014. This included the president and provost meeting with each academic department at FAU (60+) on a "learning tour" to discuss a vision and a future for FAU, and how all will work together to put FAU on the national stage. A revised strategic plan will be completed and presented for approval by FAU's BOT in Spring, 2015. FAU's current strategic plan calls for continual reassessment and, with a new president, FAU has the opportunity to revisit the plan to maximize development of areas of strategic advantage (such as the Jupiter campus which is home to two of world's most successful scientific institutions). The goal will be to identify and develop those programs at FAU, as well as "budget-to-the-plan," that will raise FAU to national prominence by 2025.

Q: (Slide 4) The projected increase in STEM students at the Jupiter campus is impressive; how many other facilities will need to be constructed or renovated in order to achieve this goal?

A: No new academic buildings or facilities are necessary or need to be renovated to support our STEM initiative in Jupiter through 2025. The STEM/LS building requested will provide adequate lab, support and office space to reach our goals by 2025. Additional housing for Honors College students will eventually be required; however, we anticipate working with the Town of Jupiter (maybe using P3 funding options) to increase student housing.

Q: (Slide 4) The increase in faculty member research funding and total funding - is this increase supported totally by Scripps and Max Planck? What is the percentage of the total funding today that is produced by Scripps and Max Planck versus Federal funding?

A: The sponsored research funding projection of \$15-20 million (federal and other) is for FAU faculty only. Collaborating with Scripps and Max Planck faculty on joint research proposals would be expected to raise this projection to \$20-30 million. Currently, Scripps Florida has annual sponsored research funds of about \$50 million, most of which is Federal funding (from annual report); and Max Planck (who have been in operation only three years) has annual sponsored research funding of about \$20 million, of which \$10 million is provided by the Max Planck Society (personal communication).

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Q: (Slide 4) Please try to quantify the increase in technology licensing activity and the time frame and the number of startups or jobs that it would create.

A: The current FAU science faculty at Jupiter (8 faculty members) has generated 2 licensing agreements with 2 spin-outs in the past three years. Assuming that the number of faculty is to increase to 40-45 by 2025, then we can project 10-12 licensing opportunities and spin-outs. Typically, biotech spin-outs have 5-10 that result in creation of 50-120 high paying jobs. However, creation of start-up companies would lead not only to direct jobs but also indirectly to additional jobs in the community. Taking a simple approach of one direct job creating 3 indirect jobs then 360 indirect jobs could result in a total of ~500 jobs.

Of course, increasing campus activity and raising the student headcount at Jupiter to ~3000 will also create additional jobs at FAU on the Jupiter campus as well as in the surrounding community.

Q: (Slide 5) Is there a way to increase the net usable square footage of the building in the renovation?

A: The existing building (FAU Research Facility - MC17), with a net to gross ratio of 62%, is designed as efficiently as possible. Per the attached floor plans, the majority of common "non-usable" space (highlighted in gray) is dedicated to oversized mechanical rooms that are required to support the systems needed for research/teaching lab intensive facilities. The renovations will allow FAU to gain programmatic efficiencies by modifying existing space to consolidate biological and chemical labs.

Additionally, FAU will require project architects design the new addition to maximize the usable square footage beyond the efficiency guidelines of 55% - 62% as established for lab intensive buildings. Detailed attention will be paid to incorporating design features such as double loaded corridors, centrally located building core, and stacked restrooms to optimize overall building efficiency.

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FAU Research Facility - MC17 (Level 1)



FAU Research Facility - MC17 (Level 2)