

FACILITIES MASTER PLAN / CAPITAL PROJECT REQUEST
CAPITAL REQUIREMENTS SUMMARY AND NEEDS ASSESSMENT FORM
(Form 1A)

Institution: University of Alabama in Huntsville
Name of Respondent: Michael S. Finnegan

Telephone Number: 256-824-6480
E-Mail Address: michael.finnegan@uah.edu

A. IMMEDIATE CAPITAL REQUIREMENTS - YEAR 1 (FY 2012-2013)

Institutional Priority	Funding Sources			Estimated Total Cost	Specify Source(s) Other State	Specify Source(s) Other Funds	Building Number (If existing Facility or Facilities)	Space Utilization Description (If more than 1 Code used include % for each Code. Click here to view Codes)	Projected Gross Square Feet. (Should be used only for Subsection 1 or 2 Projects)	Projected Net Assignable Square Feet. (Should be used only for Subsection 1 or 2 Projects)	Space Category (If more than 1 Code used include % for each Code. Click here to view Codes)	Change in Purpose (Yes or No Depending on Project)	Projected Start/ Acquisition Date (Date reported cannot be before the start of the fiscal year to be reported on the form. Fiscal Years run from Oct. 1 - Sept. 30)	Projected Completion Date	Basis of Requirement (Use no more than 2 Codes. Click here to view Codes) USE LETTER OF CODE ONLY.	
	Education Trust Fund	Other State Funding	Other Funds													
1. New Construction/Acquisition Projects																
1. Student Life Center	1	\$25,000,000		\$25,000,000				8	170,000	120,000	E&G	NO	10/01/2012	12/15/2013	D, F	
2. Nursing Building Expansion	4	\$9,000,000		\$9,000,000			30	1	19,500	13,500	E&G	NO	10/01/2012	12/15/2013	B, D	
3. Sorority House	10		\$1,000,000	\$1,000,000		Gifts & Auxiliary		13	5,000	3,500	Auxiliary	NO	10/01/2012	12/15/2013	B	
4. Acquisition of Property Near Campus	16	\$500,000		\$500,000				16	5 ACRES		OTHER	NO	10/01/2012	12/15/2013	D, J	
Subtotal		\$34,500,000	\$1,000,000	\$35,500,000												
2. Renovation/Remodeling Projects																
1. Technology Hall Replace Exterior Skin	5	\$1,200,000		\$1,200,000			89	2R	20,000	18,000	E&G	NO	10/01/2012	12/15/2013	E	
2.																
Subtotal		\$1,200,000		\$1,200,000												
3. Major Capital Equipment Projects																
1. Mass Communication System	2	\$3,200,000		\$3,200,000			all				E&G	NO	10/01/2012	09/30/2013	J	
2. IT Infrastructure Improvements	3	\$12,700,000		\$12,700,000			all				E&G	NO	10/01/2012	09/30/2013	E, G	
3.																
4.																
Subtotal		\$15,900,000		\$15,900,000												
4. Deferred Maintenance/Facilities Renewal (See Instructions)																
1. BC: Elevator Modernization, Replace Chiller	6	\$215,000		\$215,000			63	17(hotel)			Auxiliary	NO	06/01/2013	08/30/2013	E	
2. MSB: Upgrade Lab Controls & Replace Coils	7	\$205,000		\$205,000			81	1-25%, 2T-25%, 2R-50%			E&G	NO	11/01/2012	04/30/2013	E, J	
3. SECH: Install FSS	8	\$155,000		\$155,000			126,127,128	14			Auxiliary	NO	10/15/2012	06/30/2013	J	
4. EB: Replace CRU	9	\$100,000		\$100,000			62	1			E&G	NO	04/01/2013	06/30/2013	E	
5. MH: Upgrade HVAC System, Ph 1 of 2	11	\$250,000		\$250,000			1	1			E&G	NO	01/02/2013	03/31/2013	E	
6. PPB, SKH, VBRH: Emergency Generators	12	\$500,000		\$500,000			58,99,2	1			E&G	NO	01/02/2013	03/31/2013	G, J	
7. RH, SH: Replace Roofs	13	\$500,000		\$500,000			17, 31	1, 5			E&G	NO	06/01/2013	09/15/2013	E	
8. UC: Modernize EMCS	14	\$175,000		\$175,000			61	8			E&G	NO	05/01/2013	09/30/2013	E	
9. CH: Install Sub-surface Drainage Along Sparkman	15	\$100,000		\$100,000			91	17(Research)			E&G	NO	01/02/2013	05/01/2013	F,L	
10.																
Subtotal		\$2,200,000		\$2,200,000												
Total Immediate Year 1 Capital Requirements		\$53,800,000	\$1,000,000	\$54,800,000												

A brief description and justification must be attached for each project listed above.

Provide a succinct but thorough justification of the need for the capital project. This information may be included in a separate Word Processing document. See instructions for further information.

FACILITIES MASTER PLAN / CAPITAL PROJECT REQUEST
CAPITAL REQUIREMENTS SUMMARY AND NEEDS ASSESSMENT FORM
(Form 1B)

Institution: University of Alabama in Huntsville
Name of Respondent: Michael S. Finnegan

Telephone Number: 256-824-6480
E-Mail Address: michael.finnegan@uah.edu

B. INTERMEDIATE CAPITAL REQUIREMENTS - YEAR 2 (FY 2013-2014)

	Institutional Priority	Funding Sources			Estimated Total Cost	Specify Source(s) Other State	Specify Source(s) Other Funds	Building Number (If existing Facility or Facilities)	Space Utilization Description (If more than 1 Code used include % for each Code. Click here to view Codes)	Projected Gross Square Feet. (Should be used only for Subsection 1 or 2 Projects)	Projected Net Assignable Square Feet. (Should be used only for Subsection 1 or 2 Projects)	Space Category (If more than 1 Code used include % for each Code. Click here to view Codes)	Change in Purpose (Yes or No Depending on Project)	Projected Start/ Acquisition Date (Date reported cannot be before the start of the fiscal year to be reported on the form. Fiscal Years run from Oct. 1 - Sept. 30)	Projected Completion Date	Basis of Requirement (Use no more than 2 Codes. Click here to view Codes) USE LETTER OF CODE ONLY
		Education Trust Fund	Other State Funding	Other Funds												
1. New Construction/Acquisition Projects																
1. Cramer Hall Expansion, Ph 3	1	\$5,500,000	\$15,000,000		\$20,500,000	Bond Funds		91	2R	41,600	30,000	E&G	NO	10/01/2013	12/15/2014	A
2. North Campus Parking Facility	2	\$2,700,000		\$10,800,000	\$13,500,000	Federal			17(Parking)	200,000	170,000	OTHER	NO	10/01/2013	12/15/2014	D,J
3. Acquisition of Property Near Campus	10	\$500,000			\$500,000				16	5 ACRES		OTHER	NO	10/01/2013	12/15/2014	D
4.																
Subtotal		\$8,700,000	\$15,000,000	\$10,800,000	\$34,500,000											
2. Renovation/Remodeling Projects																
1. Nursing Building Renovation	3	\$2,000,000			\$2,000,000			30	1	33,000	19,800	E&G	NO	10/01/2013	09/30/2014	B, D
2.																
Subtotal		\$2,000,000			\$2,000,000											
3. Major Capital Equipment Projects																
1.																
2.																
3.																
4.																
Subtotal																
4. Deferred Maintenance/Facilities Renewal (See Instructions)																
1. BAB: Repave Parking Lot & Upgrade Lighting	4	\$165,000			\$165,000			75	1			E&G	NO	06/01/2014	08/15/2014	E,F
2. EB: Modernize EMCS	5	\$170,000			\$170,000			62	1			E&G	NO	05/01/2014	07/15/2014	E,F
3. Campus: Improve Lights, Clocks, Wayfinding, etc.	6	\$220,000			\$220,000				1			E&G	NO	01/01/2014	06/15/2014	E,F
4. JRC, CSR: General Repairs	7	\$100,000			\$100,000			29, 32	17			E&G	NO	02/01/2014	05/15/2014	E,F
5. MH: Upgrade HVAC System, Ph 2 of 2	8	\$250,000			\$250,000			1	1			E&G	NO	03/01/2014	06/15/2014	E
6. MSB: Upgrade Lab Control Sys, Ph 2 of 3	9	\$155,000			\$155,000			81	1-25%, 2T-25%, 2R-50%			E&G	NO	03/01/2014	08/15/2014	E,J
7. LIB,TH,CSR,LH: Replace Roofs	11	\$775,000			\$775,000			14,89,32,110	1			E&G	NO	01/01/2014	08/15/2014	E
8. OB: Upgrade Fire Alarm System	12	\$95,000			\$95,000			82	1-70%, 2R-30%			E&G	NO	05/01/2014	08/15/2014	E,F
9. SH: Repair Rock Wall	13	\$40,000			\$40,000			31	5			E&G - HEALTH	NO	03/01/2014	08/15/2014	E,F
10. SH: Elevator Modernization	14	\$45,000			\$45,000			31	5			E&G - HEALTH	NO	03/01/2014	06/15/2014	E
11. Repave Ben Graves Drive	15	\$380,000			\$380,000			n/a	17 (road)			OTHER	NO	06/01/2014	09/15/2014	E
12. SECH: General Upgrades	16	\$175,000			\$175,000			129,130,131	14			AUXILIARY	NO	04/01/2014	09/15/2014	E
14.																
Subtotal		\$2,570,000			\$2,570,000											
Total Intermediate Year 2 Capital Requirements		\$13,270,000	\$15,000,000	\$10,800,000	\$39,070,000											

A brief description and justification must be attached for each project listed above.

Provide a succinct but thorough justification of the need for the capital project. This information may be included in a separate Word Processing document. See instructions for further information.

FACILITIES MASTER PLAN / CAPITAL PROJECT REQUEST
 CAPITAL REQUIREMENTS SUMMARY
 (Form 1C)

Institution: University of Alabama in Huntsville
 Name of Respondent: Michael S. Finnegan
 Telephone Number: 256-824-6480 E-Mail Address: michael.finnegan@uah.edu

C. LONG TERM CAPITAL REQUIREMENTS - YEARS 3-5
 (FY 2014-2015 through FY 2016-2017)

	Estimated Total Cost
1. New Construction/Acquisition Projects	
1. Engineering/Technology Research Bldg	\$ <u>80,000,000</u>
2. Multifunction Facility	\$ <u>40,000,000</u>
3. Fraternity/Sorority House	\$ <u>1,200,000</u>
4. Residence Hall, Ph 2	\$ <u>23,000,000</u>
5. On-Campus Apartments	\$ <u>10,000,000</u>
6. Track & Field Complex	\$ <u>2,000,000</u>
7. North Campus Entrance	\$ <u>1,000,000</u>
8. Acquisition of Property	\$ <u>2,000,000</u>
Subtotal	\$ <u>159,200,000</u>
2. Renovation/Remodeling Projects	
1. Replace/Renovate Madison Hall	\$ <u>16,000,000</u>
2. Expansion of University Fitness Center	\$ <u>5,000,000</u>
3. Ben Graves Drive - Road Relocation	\$ <u>2,500,000</u>
Subtotal	\$ <u>23,500,000</u>
3. Major Capital Equipment Projects	
1.	\$ _____
Subtotal	\$ <u>-</u>
4. Deferred Maintenance/Facilities Renewal (See Instructions)	
1. Roof Replacements -10 Bldgs	\$ <u>1,662,000</u>
2. SKH: Replace HVAC Equipment	\$ <u>1,100,000</u>
3. Elevator Modernization: CCRH; UC; Library, Ph 1	\$ <u>520,000</u>
4. MSB: Lab Control System Upgrade, Ph 3 of 3	\$ <u>160,000</u>
5. EB: Replace 3 CRU (HVAC)	\$ <u>160,000</u>
6. LIB: Replace Boiler	\$ <u>50,000</u>
7. Campus: Standardize Exterior Door Locks	\$ <u>100,000</u>
8. MH: Replace Boiler	\$ <u>50,000</u>
9. Campus: Standardize Outside Lighting	\$ <u>200,000</u>
10. BAB & CCRH: EMCS Upgrade	\$ <u>210,000</u>
11. CP: Install Air Dryer for Redundancy	\$ <u>30,000</u>
12. UC: Upgrade Fire Alarm System	\$ <u>80,000</u>
13. Campus: Energy Initiative Savings Projects	\$ <u>450,000</u>
14. RH: Replace Boiler	\$ <u>50,000</u>
15. SKH: Replace Carpet	\$ <u>70,000</u>
16. SH: Repave Parking Lot	\$ <u>275,000</u>
17. SH: Replace Three Exhaust Fans	\$ <u>15,000</u>
18. RH: Replace Fire Pump & Upgrade Walkways	\$ <u>240,000</u>
19. RH: Replace Air Compressor	\$ <u>20,000</u>
20. UC: Replace Electrical Switch Board & MCC	\$ <u>350,000</u>
21. UC: Replace Exhibit Hall Flooring	\$ <u>35,000</u>
22. MSB & OB: Clean/Pressure Wash Building Exterior	\$ <u>150,000</u>
23. Replace Carpet: MSB auditorium, offices, classrooms	\$ <u>138,000</u>
Subtotal	\$ <u>6,115,000</u>
Total Long Term Capital Requirements	\$ <u>188,815,000</u>
Funding Source for All Long Term Projects:	
Education Trust Fund	\$ <u>108,815,000</u>
Other State Funding	\$ _____
Other Funds	\$ <u>80,000,000</u>

D. TOTAL ALL CAPITAL PROJECTS \$ 282,685,000
 (The total of Form1A, 1B and 1C
 should be reported in Part D)

STATEMENT OF BONDED INDEBTEDNESS AS OF SEPTEMBER 30, 2011

Institution: University of Alabama in Huntsville

Component (E&G, Auxiliary, Hospital, Health, Other) _____

Name of Respondent: Ray M. Pinner, CPA

Telephone Number: 256-824-6350

E-Mail Address: ray.pinner@uah.edu

NAME OF BOND ISSUE	PROJECT USE (Briefly describe project)	DATE OF ORIGINAL ISSUANCE	ORIGINAL VALUE	AMOUNT OUTSTANDING As of 9/30/2011	AMOUNT OF DEBT SERVICE As of 9/30/2011			SOURCE OF DEBT SERVICE PAYMENT	DATE OF MATURITY
					PRINCIPAL	INTEREST	TOTAL		
Dorm. Revenue Bond 1980	SE Campus Housing Ph2	05/01/1980	\$2,180,000	\$755,000	\$70,000	\$24,750	\$94,750	Housing Fees	05/01/2020
Dorm Revenue Bond 1981	SE Campus House Ph3	07/23/1982	\$2,602,000	\$951,000	\$85,000	\$31,080	\$116,080	Housing Fees	05/01/2021
Student Housing 2001	Franz Residence Hall (Ph1)	12/27/2001	\$9,370,000	\$7,860,000	\$205,000	\$413,359	\$618,359	Housing Fees	12/01/2031
General Fees 2002-A	Engineering Building	12/19/2002	\$3,965,000	\$3,150,000	\$115,000	\$146,066	\$261,066	Stu Tuition/Fees	09/30/2027
General Fees 2003-A	Several Campus Bldgs	02/03/2003	\$17,890,000	\$13,910,000	\$550,000	\$650,099	\$1,200,099	Stu Tuition/Fees	09/30/2027
Revenue Bond 2004-A	North Campus Resid Hall (Ph2)	09/30/2004	\$13,130,000	\$11,305,000	\$285,000	\$495,235	\$780,235	Housing Fees	09/01/2034
Revenue Bond 2004-B	Central Campus Resid Hall	09/30/2004	\$7,515,000	\$3,540,000	\$615,000	\$140,975	\$755,975	Housing Fees	09/01/2016
Revenue Bond 2005-A	Fitness Ctr & Nsstc Annex	10/01/2005	\$8,580,000	\$6,545,000	\$360,000	\$272,250	\$632,250	Stu Tuition/Fees	06/01/2025
Revenue Bond 2009-A	Wilson Hall Renovation	08/04/2009	\$8,115,000	\$7,520,000	\$300,000	\$297,231	\$597,231	Stu Tuition/Fees	07/01/2029
Revenue Bond 2010-A	Charger Village Resid Hall	07/14/2010	\$27,990,000	\$27,990,000		\$936,032	\$936,032	Stu Tuition/Fees	06/01/2042
Total			\$101,337,000	\$83,526,000	\$2,585,000	\$3,407,076	\$5,992,076		

Please be as specific as possible regarding the sources of debt service payments.

**FACILITIES MASTER PLAN / CAPITAL PROJECT REQUEST
(Form 1A)**

The University of Alabama in Huntsville

1. New Construction/Acquisition Projects

1. Student Life Center. The current student center was constructed in 1969 to house a basketball court and some meeting space. The building was expanded in 1984, 2002, and 2007 to increase food services capacities and enhance student support space. Current demand necessitates increased space for student services, food services, and retail space. This facility will be constructed in a more central location on campus to meet the needs of all areas of campus and will further enhance student life and support services. Streetscape improvements included with this building will utilize environmental cues to support traffic calming, creating safer pedestrian crossing across Holmes Avenue. The building's plaza and wide, ground-level passages will create natural gathering spaces which will serve to increase student activity on campus. It will operate as a high profile interface between the campus and its surrounding community.
2. Nursing Building Expansion. Nursing is an area with significant potential for growth that is needed to support the community and meet demands. The program will not be able to grow without the expansion of space.
3. Sorority House. The addition of fraternity and sorority housing has created an exciting new dimension for campus life. For many years, members of UAHuntsville fraternities and sororities have had the dream of occupying freestanding chapter houses directly on the campus. Fraternities and sororities play important roles on campus by enhancing the quality of academic and social lives of their members and by creating the social fabric that bonds the campus together. An additional house will help anchor the eastern edge of the new campus green and will continue the development of UAHuntsville as a traditional residential campus.
4. Acquisition of Property near Campus. This expansion anticipates future needs as UAHuntsville continually seeks new federal research dollars that require additional facilities. Established residences lie adjacent to the campus on the east; the campus is bounded by an interstate highway to the south; the west boundary of the campus is Research Park; and the north campus boundary is a major highway and a city school. High priority must be given to acquiring property in close proximity as it becomes available to meet future expansion needs.

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(Form 1A)**

The University of Alabama in Huntsville

2. Renovation/Remodeling Projects

1. Technology Hall Replace Exterior Skin. Due to deterioration of the existing exterior building facade, removal of sheathing and finish coating is required followed by installation of new sheathing, brick veneer panels, and synthetic stucco. Work must also include structural “stiffening” of the building as a result of this veneer installation and current building code compliance. Foundation work will be required at location of brick facade.

3. Major Capital Equipment Projects

1. Mass Communication System. Current emergency notification methods in use by the university rely on telephone, text/SMS, and email to deliver life-safety messages. It’s the universities goal to further enhance our mass communication system and has identified the use of building emergency notification systems and outdoor high power speaker arrays as the best method to accomplish this goal.
2. IT Infrastructure Improvements. The IT Infrastructure Improvements Project will occur in two phases. Phase 1 is a Data Center Revitalization designed to extend the current data center’s lifespan for up to five more years by retrofitting a portion of the existing facility then modernizing and consolidating the required equipment to the improved area at an estimated cost of \$1.2 M. The work will include significant improvements to power, lighting, security, fire-suppression, and moisture detection systems in one room of the current facility. It will also include replacement of many systems and network components that have reached or passed the end of their serviceable life. The new equipment will enable the modernization of data center architecture and will significantly reduce the operational complexity, power and cooling demands, and the overall physical footprint for required services and applications. Power, cooling, equipment racks, cable management, security, and management components are all part of an integrated, planned system which is evident in the resulting aesthetics, functionality, and modularity of the new environment to ensure that critical application and service availability targets are met while yielding savings and efficiencies in design, construction, and ongoing costs. Beyond the Data Center environment, the viable infrastructure plan will be enhanced with the addition of an on-campus failover location intended to provide a secondary route for network traffic, redundant network services, and a future base for other critical systems and storage redundancies.

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The University of Alabama in Huntsville

Phase 2, with an approximate cost of \$11.5 M, involves upgrading main network routing and switching equipment, developing “dematerialized zones” (DMZs) enabling collaborative service capabilities, establishing the foundational infrastructure for extending wireless capabilities to all campus buildings and common areas, and enhancing Network Team operations and capabilities through utility acquisitions and infrastructure development in order to develop a versatile, fast, and reliable network coverage capable of meeting current and anticipated needs.

4. Deferred Maintenance/Facilities Renewal

1. Bevill Center: Elevator Modernization. As part of the ongoing program to modernize and upgrade all of the campus elevators, elevators will be scheduled as funds become available. Priority is placed on the elevators with the old-style, single-bottom jacks.
2. Materials Science Building: Upgrade Lab Control System, Phase 1 of 3. The Materials Science Building was constructed in 1991 and operates as a teaching research facility that requires mechanical supportive of the research environment. The aforementioned equipment is part of the original installation and has reached the end of its life cycle and needs replacement.
3. Southeast Campus Housing: Install Fire Suppression System. This facility was constructed in the late 70’s prior to the common use of fire suppression systems. It’s the intent of the university to retro-fit the complex with a modern day fire suppression system.
4. Engineering Building: Replace CRU. The present computer room unit is inadequate for campus demand, and it provides no redundancy. To compensate, the system is being used excessive hours and has begun to experience failures. The new CRU will be better designed for its current application.
5. Morton Hall: Upgrade HVAC System, Phase 1 of 2. Morton Hall was constructed in 1961 with an expansion to the building in 1977. The equipment is over 50 years old and has exceeded its life cycle. Also the system has low efficiency rating compared to modern equipment. This upgrade will replace the deteriorated equipment with high efficiency new equipment.

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The University of Alabama in Huntsville

6. Physical Plant Building, Shelbie King Hall, & Von Braun Research Hall: Emergency Generators. These buildings require emergency generators to ensure continuity during a power outage.
7. Roberts Hall & Spragins Hall: Replace Roofs. The roof of each of these facilities has deteriorated to the point that it will soon need to be replaced.
8. University Center: Modernize EMCS. The installation of an up-to-date computerized system will allow us to monitor and control HVAC equipment remotely. Through EMCS we can focus on programming mechanical systems to provide building occupants comfort and optimize the use of energy.
9. Cramer Hall: Install Sub-surface Drainage along Sparkman Drive. The campus has enjoyed expansion in several areas. This growth along with growth of the surrounding community has created an increase in the amount of storm drainage water on campus. There are older sections of campus that are currently not plumbed with storm drainage. These funds would provide for the design and installation of drainage in these older areas.

FACILITIES MASTER PLAN / CAPITAL PROJECT REQUEST (Form 1B)

The University of Alabama in Huntsville

1. New Construction/Acquisition Projects

1. Cramer Hall Expansion, Phase 3. The proposed 41,600 square foot facility will be designed to support scientific activities performed in the Laboratory for the Study of Extreme Environmental Events (LSEEE) and will consist of these five categories of space allocation:
 - a) Laboratory space for the design, development, and testing of small instruments, electronics components, computers, and aerosol characterization
 - b) Operational and severe weather viewing areas containing communications equipment and real-time displays of multiple meteorological data sets from computer models and instruments controlled by the University, the National Weather Service, and NASA/MSFC.
 - c) Digitally-equipped meeting rooms designed for exchange of ideas research planning, operational planning meetings for field campaigns, education and public outreach, and media coverage.
 - d) High-bay laboratory space to be used for sustaining engineering, fabrication and maintenance of mobile research equipment and conducting lightning discharge experiments and preparation of sounding balloons and their payloads.
 - e) Limited office space for UAHuntsville research staff and visiting scientists.

Research at UAHuntsville continues to be a vibrant and expanding function as it demonstrates our unique role in Alabama as the leading science (non-medical) and engineering research institution. UAHuntsville's Atmospheric Electricity/Lightning Research (AELR) Team is a world leader in the field of lightning research, specifically in improving detection and forecasting abilities. The addition of this facility will enable the core competency of the AELR Team to deliver ever-more important discoveries in this critical area of research.

A current weakness in our research program is the lack of a dedicated laboratory for expanding our aerosol research program to examine both traditional and emerging threats to biogenic materials that comprise the earth's atmosphere. This facility will house an advanced computational facility in LSEEE that will be essential to enhancing the modeling component of our aerosol transport research. Investment in this facility will demonstrate UAHuntsville's intention to grow research in tandem with academic units, maintaining a balance in our research while continuing to diversify our sponsors.

2. North Campus Parking Facility. Enrollment and athletic program growth has rendered a need for additional parking support in the northern portion of campus.
3. Acquisition of Property near Campus. This expansion anticipates future needs as UAHuntsville continually seeks new federal research dollars that require additional facilities. Established residences lie adjacent to the campus on the east; the campus is

**FACILITIES MASTER PLAN / CAPITAL PROJECT REQUEST
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The University of Alabama in Huntsville

bounded by an interstate highway to the south; the west boundary of the campus is Research Park; and the north campus boundary is a major highway and a city school. High priority must be given to acquiring property in close proximity as it becomes available to meet future expansion needs.

2. Renovation/Remodeling Projects

1. Nursing Building Renovation. Some aspects of the nursing program relocated to Wilson Hall upon completion of its renovation. abs formerly located on the fourth floor of the Nursing Building relocated to the recently renovated Wilson Hall. This project will allow for renovation of the vacated space into more modern and efficient office and programs space, renovate second floor for better utilization of current space, renovate first floor for better teaching space, along with possible addition for enhanced teaching space, and allow for building code improvements, particularly related to ADA accessibility.

2. Major Capital Equipment Projects

None

3. Deferred Maintenance / Facilities Renewal

- 1) Business Administration Building: Repave Parking Lot & Upgrade Lighting. The parking lot that serves the Business Administration Building has deteriorated to the point that it will soon need to be repaved.
- 2) Engineering Building: Modernize EMCS. The installation of an up-to-date computerized system will allows us to monitor and control HVAC equipment remotely. Through EMCS we can focus on programming mechanical systems to provide building occupants comfort and optimize the use of energy.

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The University of Alabama in Huntsville

- 3) Campus: Improve Lights, Clocks, Wayfinding, etc. The outdoor lighting system that was originally installed in campus parking areas has become obsolete making it difficult to nearly impossible to replace failing parts. The system's overall candle power has fallen well below current code for parking lot lighting. Due to safety and energy concerns, the system needs to be fully replaced. The installation of a cohesive lighting system with unique, consistent, recognizable characteristics will improve campus aesthetics, save time, and enhance building and personnel security.

Installing a GPS clock system and clocks in all classrooms will synchronize all classrooms to one accurate time source. It will also eliminate the need for manual clock setting.

The installation of a cohesive way-finding system with unique, consistent, recognizable characteristics will be a critical component of planning that connects services, functions, and people. In addition, it will save time, reduce stress, encourage self-reliance, and enhance building and personnel security.

4. Johnson Research Center & Central Shipping & Receiving: General Repairs. Johnson Research Center's present 10-ton DX unit has exceeded its life cycle and is experiencing recurrent failures due to the age of the equipment. The exterior skin and roof of Central Shipping & Receiving have rusted and deteriorated and must be replaced. The installation of an up-to-date computerized system at Central Shipping & Receiving will allow us to monitor and control HVAC equipment remotely. Through EMCS we can focus on programming mechanical systems to provide building occupants comfort and optimize the use of energy.
5. Morton Hall: Upgrade HVAC System, Phase 2 of 2. Morton Hall was constructed in 1961 with an expansion to the building in 1977. The equipment is over 50 years old and has exceeded its life cycle. Also the system has low efficiency rating compared to modern equipment. This upgrade will replace the deteriorated equipment with high efficiency new equipment.
6. Materials Science Building: Upgrade Lab Systems, Phase 2 of 3. The Materials Science Building was constructed in 1991 and operates as a teaching research facility that requires mechanical supportive of the research environment. The aforementioned equipment is part of the original installation and has reached the end of its life cycle and needs replacement.
7. Library, Technology Hall, Central Shipping & Receiving, Lowe House: Replace Roofs. The roof of each of these facilities has deteriorated to the point that it will soon need to be replaced.

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8. Optics Building: Upgrade Fire Alarm System. The fire alarm system is outdated and needs to be modernized to meet today's codes and standards.
9. Spragins Hall: Repair Rock Wall. Spragins Hall was built in 1977 and has a large rock retaining wall on the north side of the building. Over the past 28 years this wall has deteriorated from surface water running off an adjacent piece of property. From observation, the wall's design was based more on aesthetics than retaining capabilities. These funds would be used to replace this wall with a poured-in-place concrete wall both for appearance and soil retention.
10. Spragins Hall: Elevator Modernization. As part of the ongoing program to modernize and upgrade all of the campus elevators, elevators will be scheduled as funds become available. Priority is placed on the elevators with the old-style, single-bottom jacks.
11. Repave Ben Graves Drive. Ben Graves Drive serves the portion of the campus that is located north of Holmes Avenue. The pavement has deteriorated to the point that it will soon need to be repaved. It was last repaved in 1986.
12. Southeast Campus Housing: General Upgrades. This complex built in the late 70's is in need of several upgrades. These upgrades include roofs, sub-surface drainage system, and landscape.