



# VINCENNES UNIVERSITY

## Capital Budget Request

### 2013-2015



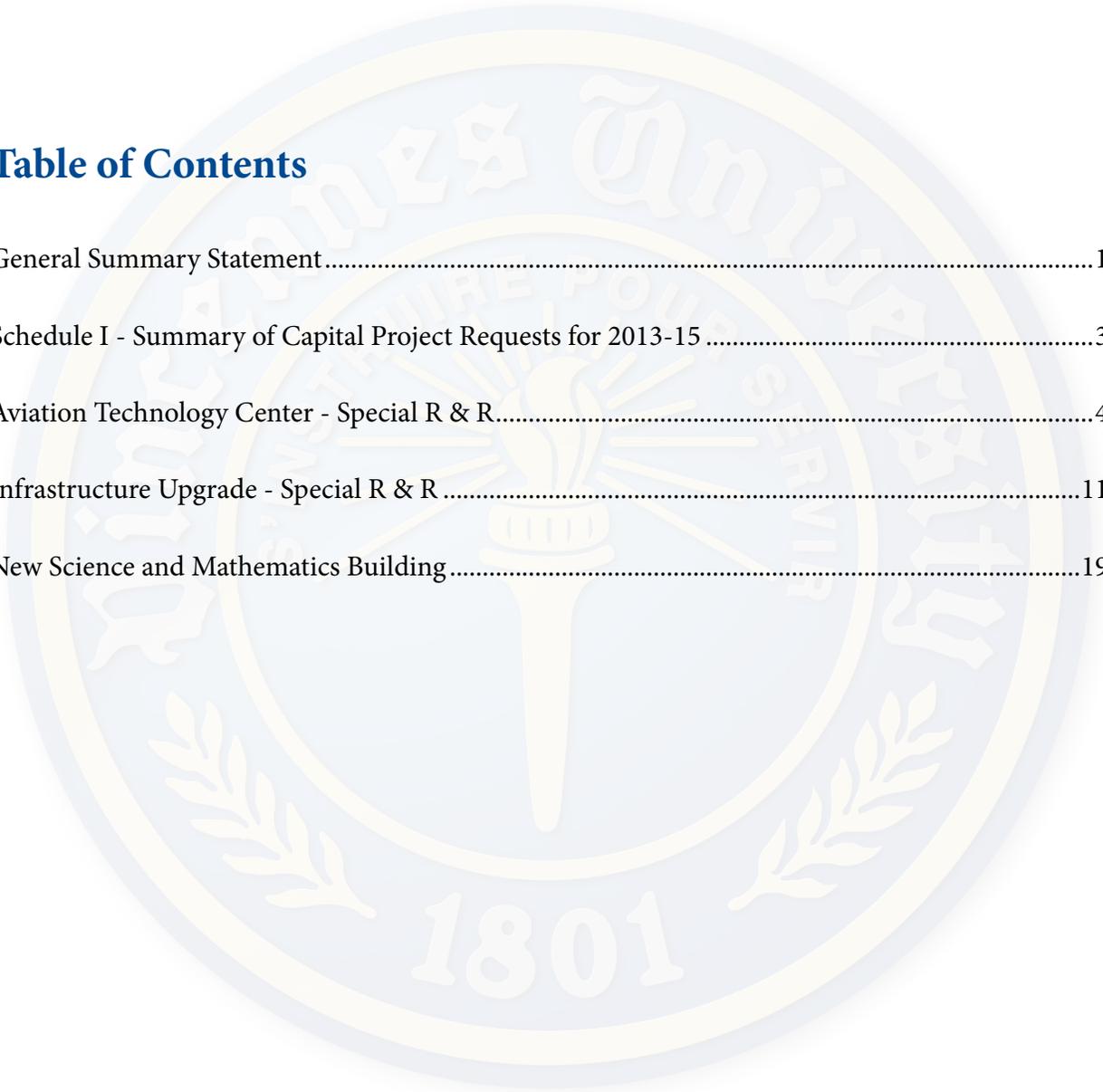
# Vincennes University

## Capital Budget Request 2013-2015

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# General Summary

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Vincennes University (VU) respectfully submits its Capital Budget Request for the 2013-2015 biennium. These projects are the result of VU's strategic development initiatives and commitment to responsible facility preservation. VU has always been, and continues to be, a good steward of the State's capital funds as fiscal constraint is paramount in the minds of VU's administration. The projects submitted in this request represent those projects that the University has deemed of substantial urgency.

The following fundamental principles of VU's Strategic Plan and Master Plan guide the institution in its capital project initiatives:

- 1) Fiscal constraint and accountability;
- 2) Protection and preservation of the University's and the State of Indiana's infrastructure investments;
- 3) Responsibility to provide the quality facilities that students need to achieve their academic goals; and
- 4) Educational duty and priority to meet industry needs.

The proper care and maintenance of existing instructional facilities is of utmost importance. Necessary repair and rehabilitation (R&R) projects assure that a quality instructional environment is maintained. With these considerations in mind, Vincennes University has made its commitment to the core maintenance of existing facilities.

After a thorough analysis, the University has identified and is requesting funding for two Special Repair and Rehabilitation projects that address critical campus needs. Because the amount of funding needed goes well beyond the institution's normal R&R funding, the Aviation Technology Center Special Repair and Rehabilitation and the Infrastructure Upgrade Special Repair and Rehabilitation projects are included in VU's capital request. Vincennes University took careful consideration into which projects were essential to the operation of the institution as well as how the project would result in a return on investment to VU and the State of Indiana in terms of lower utility costs, better system efficiencies, utilization of less expensive energy sources and other proven operational savings.

The Vincennes University Aviation Technology Center is located at the Indianapolis International Airport, one of the largest logistics hubs in the country. Offering nationally-renowned programming in Aviation Maintenance and Aviation Flight, this facility features a fully functioning Boeing 737 Jet, two hangers containing 15 aircraft, testing cells for over 15 engine test stands, over \$1 million in aircraft, equipment, and tooling, 12 classrooms and 10 equipped laboratories. VU is the only Indiana institution and one of only a few institutions in the nation to offer training on a functional heavy aircraft. AAR Corporation, the largest private provider of heavy jet maintenance in the world, looks to Vincennes University to provide premier training for its current and future workforce. In addition, the Indiana Department of Workforce Development has identified Aircraft Maintenance Technician positions as high-demand occupations and has approached the Aviation Technology Center to be the leader in meeting the workforce needs of the aviation industry. With over 70 airports throughout the state, the Aviation Technology Center plays a vital role in supporting the workforce needs of Indiana's aviation industry.

The 91,000 square foot Aviation Technology Center was constructed in 1993. Since its establishment, neither the University nor the Indiana Finance Authority have performed any major repair or renovation projects on the building. The facility is now in need of significant repairs and upgrades that are necessary to provide a quality educational environment. The Aviation Technology Center Special Repair and Rehabilitation project will include upgrades to the HVAC and electrical systems, a new roof, repairs to the exterior skin and parking lot and upgrades to the interior finishes. These upgrades will increase the energy efficiency of the building, providing a cost savings of 15-20%. The total funding requested for this project is \$6,000,000.

The Infrastructure Upgrade Special Repair and Rehabilitation project will involve the installation of a new electrical substation on the Vincennes campus. Based on analysis of future energy demands, the current substation's capacity will be exceeded in the near future, resulting in system failures to the University. Adequate electrical energy is essential to the operation of a comprehensive University offering educational programming and community services. In addition, the University will replace decayed and corroded underground steam line on the Vincennes campus. This project is a continuation of the \$2,500,000 Campus Steam Line Replacement Phase I which replaced 5,000 lineal feet (47%) in 2006-2007. Phase II will replace the remaining 5,700 lineal feet (53%) throughout the campus. By increasing the efficiency of the system, VU expects to experience a \$50,000 annual cost savings. The University requests \$8,000,000 for this Infrastructure Upgrade project that will allow for the installation of the new electrical substation and replacement of the remaining campus steam line.

Recognizing the critical importance of providing Science and Mathematics students with the skills to succeed in the industry, Vincennes University requests \$15,000,000 for the construction of a new 65,000 square foot Science and Mathematics Building. The \$1.5 million McCormick Science Center that currently houses the Science and Mathematics programs was built in 1976 with a \$2 million addition added in 1984. With limited funding, the University built the most basic facility (\$58/square foot) that could viably meet the essential needs of the programs. Technological requirements in science education have significantly changed over the past 35 years and the McCormick Science Center does not provide a feasible solution to the infrastructure needs of the programs. Cutting-edge equipment, such as computer simulations, and larger lab spaces are now critical to the quality of science and mathematics education. The current building is not adequate for the safe installation and use of this technology. The new Science and Mathematics Building will feature state-of-the-art science labs, technology-integrated classrooms, a large lecture hall, tutoring rooms and small group breakout spaces. This facility will provide students with the education and training they need to succeed in Indiana's high-demand STEM-related careers.

Finally, funds in the amount of \$3,260,421 are being requested for general repair and rehabilitation of the instructional facilities on campus for the 2013-2015 biennium. In order to properly maintain the existing facilities and prevent major problems in the future, these funds are needed to protect and preserve the University's and the State of Indiana's investments. Special focus has been placed on a preventive maintenance program to further extend the economic life of the institutional facilities.

The funding for projects outlined in this request represent the capital needs of the University to provide educational facilities that can best serve the students of Indiana. Vincennes University's steadfast commitment to providing industry-responsive programming to meet the needs of Indiana employers and students alike remains the focal point of this institution. Recognizing the fiscal limitations of the State of Indiana, Vincennes University has limited the scope of its funding to only capital projects that are essential to its core operations.

VINCENNES UNIVERSITY  
 CAPITAL REQUEST SCHEDULE I (CRS I)  
 2013-15 CAPITAL PROJECT REQUEST - ALL FUNDS  
 INDIANA PUBLIC POSTSECONDARY EDUCATION  
 SUMMARY OF CAPITAL PROJECT REQUESTS FOR THE 2013-15 BIENNIUM - ALL PROJECTS

	Budget Agency Number	Institution Priority Ranking	STATE FUNDING			Other Funding	Total Capital Request	Est. Annual State Debt Service <sup>(1)</sup>	Est. Annual Other Debt Service <sup>(1)</sup>
			Cash	Bonding Authority	Lease-Purchase				
<b>A. PREVIOUSLY AUTHORIZED CAPITAL PROJECTS</b>									
1. List any projects pending approval by the state that are not funded the institution wishes to request									
<b>B. NEW CAPITAL PROJECTS</b>									
<b>1. R&amp;R Formula</b>									
a. Facilities									
			\$ 3,008,878			\$ 3,008,878			
b. Infrastructure									
			\$ 251,543			\$ 251,543			
<b>TOTAL R&amp;R FORMULA</b>									
		1	\$ 3,260,421			\$ 3,260,421			
<b>2. SPECIAL R&amp;R PROJECTS</b>									
a. Aviation Technology Center Rehabilitation									
	E-1-13-2-01	2		\$ 6,000,000		\$ 6,000,000	\$ 512,540		
b. Infrastructure Project (Electrical / Steamline Replacement)									
	E-1-13-2-02	3		\$ 8,000,000		\$ 8,000,000	\$ 683,388		
<b>3. NEW CONSTRUCTION</b>									
a. New Science and Mathematics Building									
	E-1-13-1-03	4		\$ 15,000,000		\$ 20,000,000	\$ 1,281,352		
<b>4. QUALIFIED ENERGY SAVINGS PROJECTS</b>									
a. List each project									
<b>5. ACQUISITION (FACILITY, LAND OR LEASE)</b>									
a. List each project									
<b>6. OTHER PROJECTS</b>									
a. List each project									
<b>TOTAL CAPITAL PROJECT BUDGET REQUEST</b>									
			\$ 3,260,421	\$ 29,000,000	\$ -	\$ 37,260,421	\$ 2,477,280	\$ -	

Notes:  
 (1) Assume a bond term of 20 years at 5.75% interest

**PROJECT SUMMARY AND DESCRIPTION**  
**FOR: AVIATION TECHNOLOGY CENTER - SPECIAL REPAIR AND REHABILITATION**

<b>Institution:</b>	Vincennes University	<b>Budget Agency Project No.:</b>	E-1-13-2-01
<b>Campus:</b>	Aviation Technology Center	<b>Institutional Priority:</b>	2
<b>Previously approved by General Assembly:</b>	No	<b>Previously recommended by CHE:</b>	No
<b>Part of the Institution's Long-term Capital Plan:</b>	Yes		

**Project Summary Description:**

Vincennes University's 90,922 square foot Aviation Technology Center is located at the expanding Indianapolis International Airport and has been the site for preparing the aviation workforce since 1993. The facility is now in need of significant repairs and upgrades that are beyond typical repair and rehabilitation in order to provide a quality, safe and educational environment. The renovation of this facility will include a complete upgrade of the HVAC and electrical systems, a new roof, repairs to the exterior concrete and parking lot, repairs and cleaning of the exterior skin and an upgrade of the interior finishes. The infrastructure upgrades will increase the energy efficiency of the building, providing a cost savings of 15-20%. This project will ensure that Vincennes University can meet the growing demand as the Aviation Maintenance and Aviation Flight programs have experienced a 65% increase in the number of applicants in the past year.

**Summary of the impact on the educational attainment of students at the institution:**

The Vincennes University Aviation Technology Center offers nationally renowned programming in Aviation Maintenance and Aviation Flight. This facility features a fully functioning Boeing 737 Jet, two hangers containing 15 aircraft, testing cells for over 15 engine test stands, over \$1 million in aircraft, equipment, and tooling, 12 classrooms, and 10 equipped laboratories. Vincennes University is the only Indiana institution and one of only a few institutions in the nation to offer training on a functional heavy aircraft. Graduates of this program who have gained the FAA Certification are highly sought-after by employers. There is currently a critical shortage of Aircraft Maintenance Technicians and this shortage will increase in the next ten years as air travel continues to expand and experienced technicians retire. The Indiana Department of Workforce Development has identified these positions as high-demand occupations and has approached the Aviation Technology Center to be the leader in meeting the workforce needs of the aviation industry.

**Project Size:** 90,922 GSF      68,216 ASF      0.75 ASF/GSF

**Net change in overall campus space:** 0 GSF      0 ASF

**Total cost of the project:** \$6,000,000      **Cost per ASF/GSF:** \$ 66 GSF  
 \$ 88 ASF

**Funding Source(s) for project:** \$6,000,000 Bonding Authority (I.C. 21-34-6 though 10)

**Estimated annual debt payment (4):** \$ 512,541

**Are all funds for the project secured:** N/A

**Estimated annual change cost of building operations based on the project:** \$ (35,000)

**Estimated annual repair and rehabilitation investment:** N/A

(4) If issuing debt, determine annual payment based on 20 years at 5.75% interest rate.

**PROJECT DETAILED DESCRIPTION - ADDITIONAL INFORMATION  
FOR: AVIATION TECHNOLOGY CENTER - SPECIAL REPAIR AND REHABILITATION**

<b>Institution:</b>	Vincennes University	<b>Budget Agency Project No.:</b>	E-1-13-2-01
<b>Campus:</b>	Aviation Technology Center	<b>Institutional Priority:</b>	2

**Description of Project**

Vincennes University's 90,922 square foot Aviation Technology Center is located at the expanding Indianapolis International Airport and has been the site for preparing the current and future aviation workforce since 1993. The facility is now in need of repairs and upgrades in order to provide a quality, safe and educational environment to learn and train. The renovation of this facility will include a complete upgrade of the HVAC and electrical systems, a new roof, repairs and cleaning of the exterior skin, an upgrade of the interior finishes as well as site development including repairs to the parking lot, concrete and entrance. The upgrades in infrastructure (HVAC and electrical) will increase the energy efficiency of the building and provide an operational cost savings of 15-20%. Interior upgrades will feature easy-to-maintain materials in order to reduce maintenance costs. This renovation furthers Vincennes University's commitment to providing quality educational space for its students and is consistent with the University's energy conservation practices.

**Need and Purpose of the Program**

The Vincennes University (VU) Aviation Technology Center offers nationally renowned programming in Aviation Maintenance and Aviation Flight. This facility features a fully functioning Boeing 737 Jet, two hangers containing 15 aircraft, testing cells for over 15 engine test stands, over \$1 million in aircraft, equipment, and tooling, 12 classrooms and 10 equipped laboratories. Vincennes University is the only Indiana institution and one of only a few institutions in the nation to offer training on a functional heavy aircraft. Programs at the Aviation Technology Center provide the most advanced commercial flight and technician training available. The Aviation Technology Center was originally opened by the State of Indiana to support the United Airlines Maintenance Facility. The United Airlines facility is now occupied by AAR Corporation, the largest private provider of heavy jet maintenance in the world. Meeting the maintenance needs of all airlines, from Southwest to United, AAR looks to Vincennes University to provide premier training for its current and future workforce.

Vincennes University's Associate Degree in Aviation Maintenance prepares students with skill sets in Hydraulics, Composites, Electrical, Powerplant, Welding, Sheet Metal, and Propellers. At the conclusion of the Aviation Maintenance program, students are tested to obtain the Federal Aviation Administration Airframe & Powerplant Technician Certification. Graduates of this program who have gained the FAA Certification are highly sought-after by employers. In addition, VU works closely with AAR to meet the maintenance training needs of its existing workforce as they adapt to the demands of the aviation industry. There is currently a critical shortage of Aircraft Maintenance Technicians and this shortage will increase in the next ten years as air travel continues to expand and experienced technicians retire. The Indiana Department of Workforce Development has identified these positions as high-demand occupations and has approached the Aviation Technology Center to be the leader in meeting the workforce needs of the aviation industry. Vincennes University has a long and distinguished history of providing commercial flight training. In the Fall of 2010, VU moved its flight training program to Indianapolis in order to expand and enhance the program. This provided access to training to a larger and more diverse group of students and allowed VU to build upon long-lasting partnerships that are instrumental to the success of the program.

Vincennes University's goal is to maintain a commercial aviation training hub that comprehensively supports the flight and maintenance needs of the aviation industry by creating an FAA certified, educated workforce. Renovations to the building will ensure that Vincennes University can meet the growing demand as these programs have experienced a 65% increase in the number of applicants in the past year.

**PROJECT DETAILED DESCRIPTION - ADDITIONAL INFORMATION**  
**FOR: AVIATION TECHNOLOGY CENTER - SPECIAL REPAIR AND REHABILITATION**

**Space Utilization**

This project will not change space utilization, but will improve the quality of the space throughout the Aviation Technology Center.

**Comparable Projects**

Vincennes University has undergone several renovation projects in recent years that have provided similar cost information as is projected for this project. The Homeland Security/Public Safety Building Renovation, completed in 2011, renovated 24,347 square feet at a cost of \$1.6 million - \$66 per sq. ft. The University also completed a renovation of the Extended Studies Building in 2010 that renovated 7,723 square feet at a cost of \$708,000 - \$91 per sq. ft.

**Background Materials**

Aviation Technology Center floor plans are provided for reference.

**CAPITAL PROJECT REQUEST FORM**  
**INDIANA PUBLIC POSTSECONDARY EDUCATION**  
**FOR: AVIATION TECHNOLOGY CENTER - SPECIAL REPAIR AND REHABILITATION**

AVIATION TECH CTR RENOVATION/REPAIR (E-1-13-2-02)	Current Space in Use	Space Under Construction	Space Planned and Funded	Subtotal Current and Future Space	Space to be Terminated	New Space in Capital Request	Net Future Space
<b>A. OVERALL SPACE IN ASF</b>							
Classroom (110 & 115)				10,204			10,204
Class Lab (210,215,220,225,230,235)				21,995			21,995
Nonclass Lab (250 & 255)				-			-
Office Facilities (300)				9,641			9,641
Study Facilities (400)				2,295			2,295
Special Use Facilities (500)				-			-
General Use Facilities (600)				332			332
Support Facilities (700)				23,749			23,749
Health Care Facilities (800)				-			-
Resident Facilities (900)				-			-
Unclassified (000)				-			-
<b>B. OTHER FACILITIES</b> (Please list major categories)				-			-
<b>TOTAL SPACE</b>	-	-	-	<b>68,216</b>	-	-	<b>68,216</b>

This project will not change space utilization, but will improve the quality of the space throughout the Aviation Technology Center.

## CAPITAL PROJECT COST DETAILS

### FOR: AVIATION TECHNOLOGY CENTER - SPECIAL REPAIR AND REHABILITATION

<b>Institution:</b>	Vincennes University	<b>Budget Agency Project No.:</b>	E-1-13-2-01
<b>Campus:</b>	Aviation Technology Center	<b>Institutional Priority:</b>	2

#### ANTICIPATED CONSTRUCTION SCHEDULE

	<u>Month</u>	<u>Year</u>
<b>Bid Date</b>	March	2013
<b>Start Construction</b>	May	2013
<b>Occupancy (End Date)</b>	August	2013

#### ESTIMATED CONSTRUCTION COST FOR PROJECT

	Cost Basis (1)	Estimated Escalation Factors	Project Cost
<b><u>Planning Costs</u></b>			
a. Engineering	\$ 140,000		\$ 140,000
b. Architectural	\$ 190,000		\$ 190,000
c. Consulting			\$ -
<b><u>Construction</u></b>			
a. Structure	\$ 2,100,000		\$ 2,100,000
b. Mechanical (HVAC, plumbing, etc.)	\$ 1,900,000		\$ 1,900,000
c. Electrical	\$ 500,000		\$ 500,000
<b><u>Movable Equipment</u></b>			\$ -
<b><u>Fixed Equipment</u></b>			\$ -
<b><u>Site Development</u></b>	\$ 900,000		\$ 900,000
<b><u>Other - Contingency</u></b>	\$ 270,000		\$ 270,000
<b>TOTAL ESTIMATED PROJECT COST</b>	<b>\$ 6,000,000</b>	<b>\$ -</b>	<b>\$ 6,000,000</b>

(1) Cost Basis is based on current cost prevailing as of: July 2012

**CAPITAL PROJECT OPERATING COST DETAILS**  
**FOR: AVIATION TECHNOLOGY CENTER - SPECIAL REPAIR AND REHABILITATION**

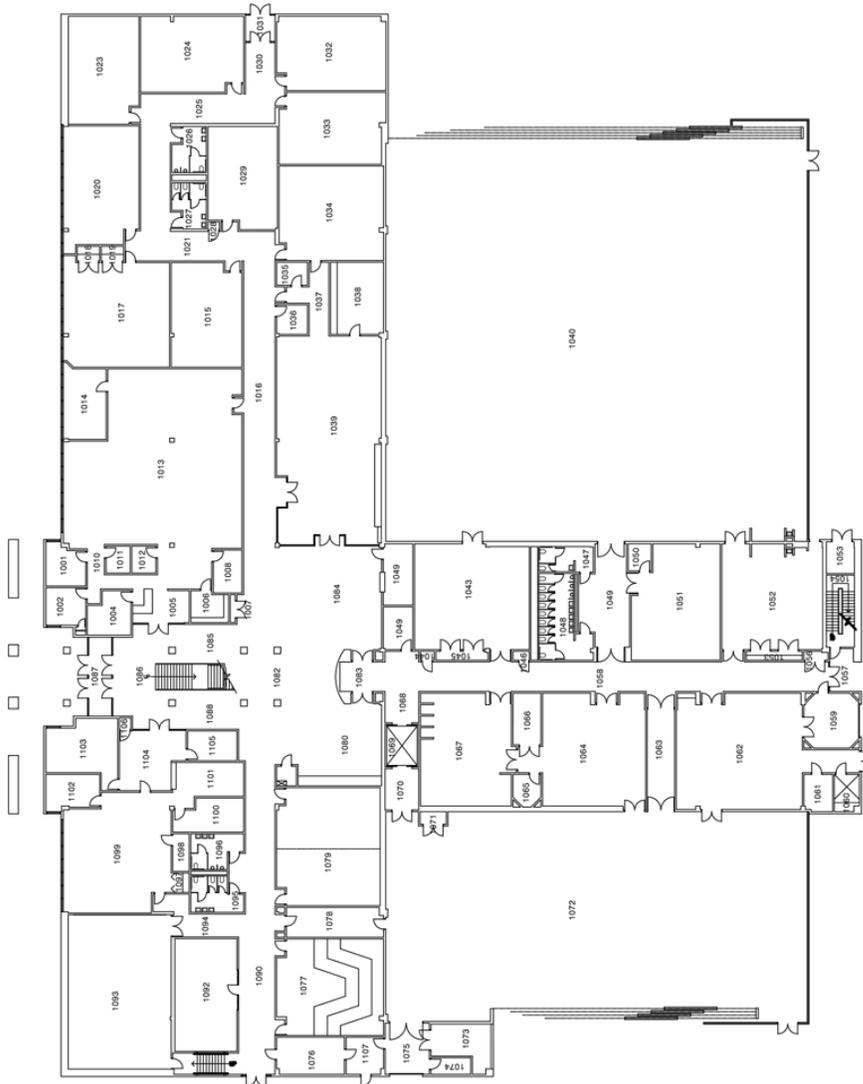
<b>Institution:</b>	Vincennes University	<b>Budget Agency Project No.:</b>	E-1-13-2-01
<b>Campus:</b>	Aviation Technology Center	<b>Institutional Priority:</b>	2

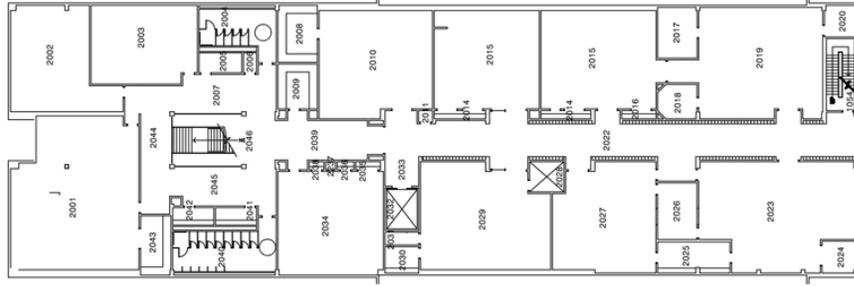
<b>ANNUAL OPERATING COST/SAVINGS</b>	<b>GSF OF AREA AFFECTED BY PROJECT</b>	90,922															
	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%;"></td> <td style="text-align: center;"><b>Cost per</b></td> <td style="text-align: center;"><b>Total</b></td> <td style="text-align: center;"><b>Personal</b></td> <td style="text-align: center;"><b>Supplies</b></td> </tr> <tr> <td></td> <td style="text-align: center;"><b>GSF</b></td> <td style="text-align: center;"><b>Operating</b></td> <td style="text-align: center;"><b>Services</b></td> <td style="text-align: center;"><b>and</b></td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;"><b>Cost</b></td> <td style="text-align: center;"><b>Expenses</b></td> <td></td> </tr> </table>		<b>Cost per</b>	<b>Total</b>	<b>Personal</b>	<b>Supplies</b>		<b>GSF</b>	<b>Operating</b>	<b>Services</b>	<b>and</b>			<b>Cost</b>	<b>Expenses</b>		
	<b>Cost per</b>	<b>Total</b>	<b>Personal</b>	<b>Supplies</b>													
	<b>GSF</b>	<b>Operating</b>	<b>Services</b>	<b>and</b>													
		<b>Cost</b>	<b>Expenses</b>														
1. Operations																	
2. Maintenance																	
3. Fuel																	
4. Utilities	\$ (0.38)	\$ (35,000)															
5. Other																	
<b>TOTAL ESTIMATED OPERATIONAL COST/SAVINGS</b>	<b>\$ (0.38)</b>	<b>\$ (35,000)</b>	<b>\$ -</b>	<b>\$ -</b>													

<b>Description of any unusual factors affecting operating and maintenance costs/savings.</b>
The infrastructure upgrades will increase the energy efficiency of the building, providing a cost savings of 15-20%



FIRST FLOOR PLAN



SECOND FLOOR PLAN



# AVIATION TECHNOLOGY CENTER



VINCENNES UNIVERSITY

7/19/12

**PROJECT SUMMARY AND DESCRIPTION**  
**FOR: INFRASTRUCTURE UPGRADE - SPECIAL REPAIR AND REHABILITATION**

<b>Institution:</b>	Vincennes University	<b>Budget Agency Project No.:</b>	E-1-13-2-02
<b>Campus:</b>	Vincennes	<b>Institutional Priority:</b>	3
<b>Previously approved by General Assembly:</b>	<input type="checkbox"/> No	<b>Previously recommended by CHE:</b>	<input type="checkbox"/> No
<b>Part of the Institution's Long-term Capital Plan:</b>	<input type="checkbox"/> Yes		

**Project Summary Description:**

**Electrical Substation**

A new electrical substation will be installed on Fourth Street on the Vincennes University campus. The substation will provide more reliable electrical infrastructure, greater flexibility in adding new facilities and equipment, and an upgradable system, allowing the University to provide a quality and reliable environment for its students. Based on an analysis of future energy demands, the current substation's capacity will be exceeded with the additional buildings recently constructed on campus. The overload could result in system failures and greatly impact electrical service to the University. In conjunction with the electrical substation installment, deteriorating electrical poles and lines on the campus will be removed and ran underground. Electrical poles create obstacles to construction and often increase costs as the University is forced to find solutions to work around them. These lines and poles will be upgraded and better protected in an underground conduit.

**Campus Steam Line Replacement, Phase II**

The Campus Steam Line Replacement, Phase II will replace decayed and corroded underground steam line infrastructure on the Vincennes University campus. Phase II will replace 5,700 lineal feet of steam line which includes the west artery that runs from the Boiler Plant to the Health Occupation Building and the east line that runs from the Boiler Plant to the Learning Resources Center and the Technology Building as shown on the attachment. This project is expected to result in an annual cost savings of \$50,000 in water usage as well as additional savings in natural gas.

**Summary of the impact on the educational attainment of students at the institution:**

**Electrical Substation**

Adequate electrical energy is basic to the operation of a comprehensive University offering educational programming and community services. Not only will more electrical power be needed to heat, cool, and provide light to existing and future educational facilities, but there is also an ever-increasing demand to operate instructional equipment in these facilities. This equipment includes over 4,000 personal computers in classrooms, labs, and the library as well as high-tech equipment in VU's vocational and occupational programs. The new substation project is designed to meet the electrical needs necessary to operate the Vincennes campus now and well into the future.

**Campus Steam Line Replacement, Phase II**

The replacement of the steam line is consistent with Vincennes University's commitment to provide a quality educational environment for its students. The project will ensure that the infrastructure is in place to maintain comfort in academic and support spaces without interruption due to emergency repairs. It will also increase the efficiency of the system and provide cost savings that can be directed to other educational needs.

<b>Project Size:</b>	<input type="checkbox"/> N/A GSF	<input type="checkbox"/> N/A ASF	<input type="checkbox"/> N/A ASF/GSF
<b>Net change in overall campus space:</b>	<input type="checkbox"/> N/A GSF	<input type="checkbox"/> N/A ASF	

**PROJECT SUMMARY AND DESCRIPTION**  
**FOR: INFRASTRUCTURE UPGRADE - SPECIAL REPAIR AND REHABILITATION**

<b>Total cost of the project:</b>	\$ 8,000,000	<b>Cost per ASF/GSF:</b>	N/A	GSF
			N/A	ASF
<b>Funding Source(s) for project:</b>	\$ 8,000,000 Bonding Authority (I.C. 21-34-6 through 10)			
<b>Estimated annual debt payment (4):</b>	\$ 683,388			
<b>Are all funds for the project secured:</b>	N/A			
<b>Estimated annual change cost of building operations based on the project:</b>	\$ (50,000)			
<b>Estimated annual repair and rehabilitation investment:</b>	N/A			

(4) If issuing debt, determine annual payment based on 20 years at 5.75% interest rate.

**PROJECT DETAILED DESCRIPTION - ADDITIONAL INFORMATION  
FOR: INFRASTRUCTURE UPGRADE - SPECIAL REPAIR AND REHABILITATION**

<b>Institution:</b>	Vincennes University	<b>Budget Agency Project No.:</b>	E-1-13-2-02
<b>Campus:</b>	Vincennes	<b>Institutional Priority:</b>	3

**Description of Project**

**Electrical Substation**

A new electrical substation will be located on Fourth Street on the Vincennes University Campus. The substation will provide:

1. An overall electrical solution for Vincennes University. The University will have more control in selecting project options such as additional equipment and size of equipment. Because of the significant loads that will be placed on the substation, VU will be installing a 2,000 amp switchgear rather than the typical 1,200 amp switchgear. This will enable the University to meet future demands and eliminate reliability issues and concerns.
2. An upgraded bank which will have the capacity to serve building loads created by the Art Center, Red Skelton Performing Arts Center, Aquatic Center as well as the continued additional loads of the ever-increasing equipment needed for the education of students. The Indiana Center for Applied Technology and the VU Technology Building house cutting-edge Robotics and CNC Training equipment. This state-of-the-art equipment requires significant electrical usage to train students for the advanced manufacturing, robotics, and mining industries - the backbone of Indiana's regional and statewide economic workforce development.
3. A transformer bank that can be easily upgraded in the future due to the substation's standard design.
4. Increased space surrounding the substation, creating a safer environment for maintenance needs.
5. A mobile substation (in the event it is needed).
6. Better reliability of electrical service. In the event that a primary piece of equipment on the current substation should fail, the second substation will be available.
7. A long-term growth solution for the campus as the substation will be located in close proximity to the University's load center for circuit tie-ins and for future growth areas.

Based on an analysis of future energy demands, the current substation's capacity will be exceeded with the additional buildings recently constructed on campus. The overload would result in system failures and greatly impact electrical service to the University.

In conjunction with the electrical substation installment, electrical poles on the campus will be removed and lines will be ran underground. These deteriorating poles create obstacles to construction and often increase costs as the University is forced to find solutions to work around them. The lines will be upgraded and better protected in an underground conduit. In addition, this will remove existing electrical service equipment from high traffic areas and road ways. New lighting will also be installed along Second and Chestnut Streets. Proper lighting will create a safer environment for students and visitors.

**Campus Steam Line Replacement, Phase II**

The Campus Steam Line Replacement, Phase II will replace decayed and corroded underground steam line infrastructure on the Vincennes University campus. Phase II will replace 5,700 lineal feet of steam line which includes the west artery that runs from the Boiler Plant to the Health Occupation Building and the east line that runs from the Boiler Plant to the Learning Resources Center and the Technology Building as shown on the attachment. The project will replace all of the old slip joint steam line piping with a new thermal pipe system for main and condensate returns that includes precast concrete manholes and concrete anchor thrust blocks. The project will also include the removal and replacement of curbs, paving, brick and concrete walks as needed for the replacement of the underground lines.

*(Description of Project Continued on Next Page)*

**PROJECT DETAILED DESCRIPTION - ADDITIONAL INFORMATION  
FOR: INFRASTRUCTURE UPGRADE - SPECIAL REPAIR AND REHABILITATION**

**Description of Project (continued)**

There have been several steam line and manhole leaks that have been identified and repaired over the past ten years that resulted in significant funds to repair. Based on internal reviews and an independent engineer analysis, these failures are not an isolated case and repairs will continue to add significant costs to maintain unless the steam line is replaced. Vincennes University has also incurred increased operational costs due to water leakage from the system and extra gas needed to compensate for the inefficiency of the decaying infrastructure. The 5,000 lineal feet of steam lines that have already been replaced in Phase I and other locations that have been repaired as needed have resulted in proven cost savings. Water usage, due to leaks in the system, was reduced by approximately 55%, resulting in an annual water savings of \$44,000. It is anticipated that the Campus Steam Line Replacement, Phase II will also result in similar savings, estimated at \$50,000 annually.

**Need and Purpose of the Program**

**Electrical Substation**

Adequate electrical energy is basic to the operation of a comprehensive University offering educational programming and community services. The addition of a new electrical substation is consistent with the University's Master Plan encompassing existing and future energy needs. Not only will more electrical power be needed to heat, cool, and provide light to existing and future educational facilities, there is also an ever-increasing demand to operate instructional equipment in these campus facilities. This equipment includes over 4,000 personal computers in classrooms, labs, and the library as well as high-tech equipment in VU's vocational and occupational programs. The new substation project is designed to meet the electrical needs of the Vincennes campus well into the future.

**Campus Steam Line Replacement, Phase II**

The replacement of the steam line is a continuation of Vincennes University's commitment to provide a quality, educational environment for its students. The project will ensure that the infrastructure is in place to maintain comfort in academic and support spaces without interruption due to emergency repair needed of a decaying system. It will also increase the efficiency of the system and provide cost savings that can be directed to other educational needs.

**Space Utilization**

This project will not change space utilization, but will improve the quality of the space throughout the Vincennes campus.

**Comparable Projects**

The Campus Steam Line Replacement, Phase II is a continuation of the previously approved Campus Steam Line Replacement, Phase I. Phase I was a \$2.5 million project funded by a cash appropriation from the State of Indiana and replaced approximately 5,000 lineal feet of steam line. Phase II will replace the remaining 5,700 lineal feet of steam line on campus. The lines replaced and repaired in Phase I have resulted in water and gas cost savings. Water usage, due to leaks in the system, was reduced by approximately 55%, resulting in an annual savings of \$44,000. It is anticipated that Phase II will also result in similar savings estimated at \$50,000 annually.

**Background Materials**

The attached campus maps illustrate the location of the proposed electrical substation as well as the steam line replacement completed in Phase I and proposed in Phase II.

**CAPITAL PROJECT COST DETAILS**  
**FOR: INFRASTRUCTURE UPGRADE - SPECIAL REPAIR AND REHABILITATION**

<b>Institution:</b>	Vincennes University	<b>Budget Agency Project No.:</b>	E-1-13-2-02
<b>Campus:</b>	Vincennes	<b>Institutional Priority:</b>	3

**ANTICIPATED CONSTRUCTION SCHEDULE**

	<u>Month</u>	<u>Year</u>
<b>Bid Date</b>	February	2013
<b>Start Construction</b>	May	2013
<b>Occupancy (End Date)</b>	August	2013

**ESTIMATED CONSTRUCTION COST FOR PROJECT**

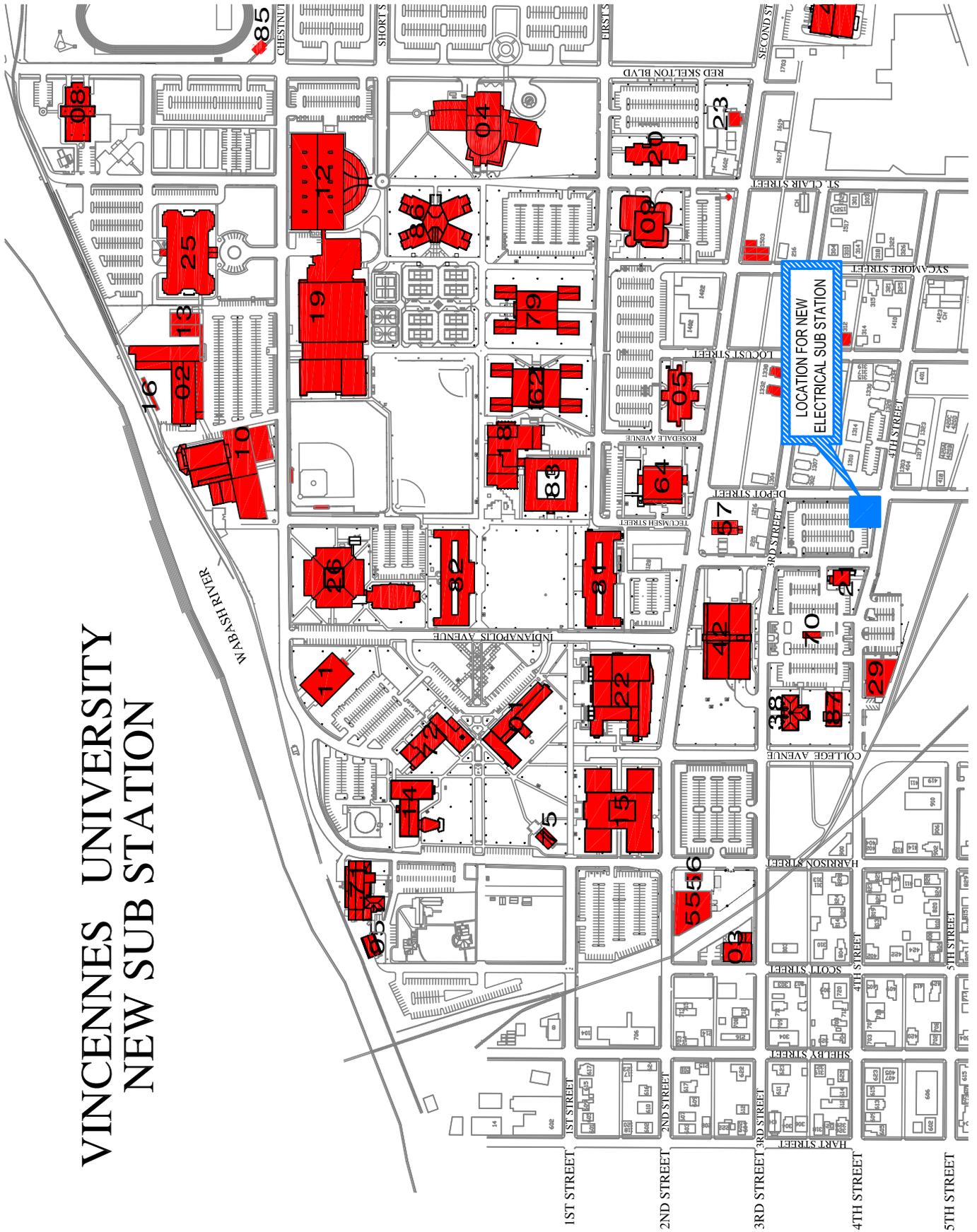
	<u>Cost Basis</u> (1)	<u>Estimated Escalation</u> Factors	<u>Project Cost</u>
<b>Planning Costs</b>			
a. Engineering	\$ 200,000		\$ 200,000
b. Architectural			\$ -
c. Consulting			\$ -
<b>Construction</b>			
a. Structure			\$ -
b. Mechanical (HVAC, plumbing, etc.)	\$ 2,850,000		\$ 2,850,000
c. Electrical	\$ 4,950,000		\$ 4,950,000
<b>Movable Equipment</b>			\$ -
<b>Fixed Equipment</b>			\$ -
<b>Site Development/Land Acquisition</b>			\$ -
<b>Other (Please list)</b>			\$ -
<b>TOTAL ESTIMATED PROJECT COST</b>	<b>\$ 8,000,000</b>	<b>\$ -</b>	<b>\$ 8,000,000</b>

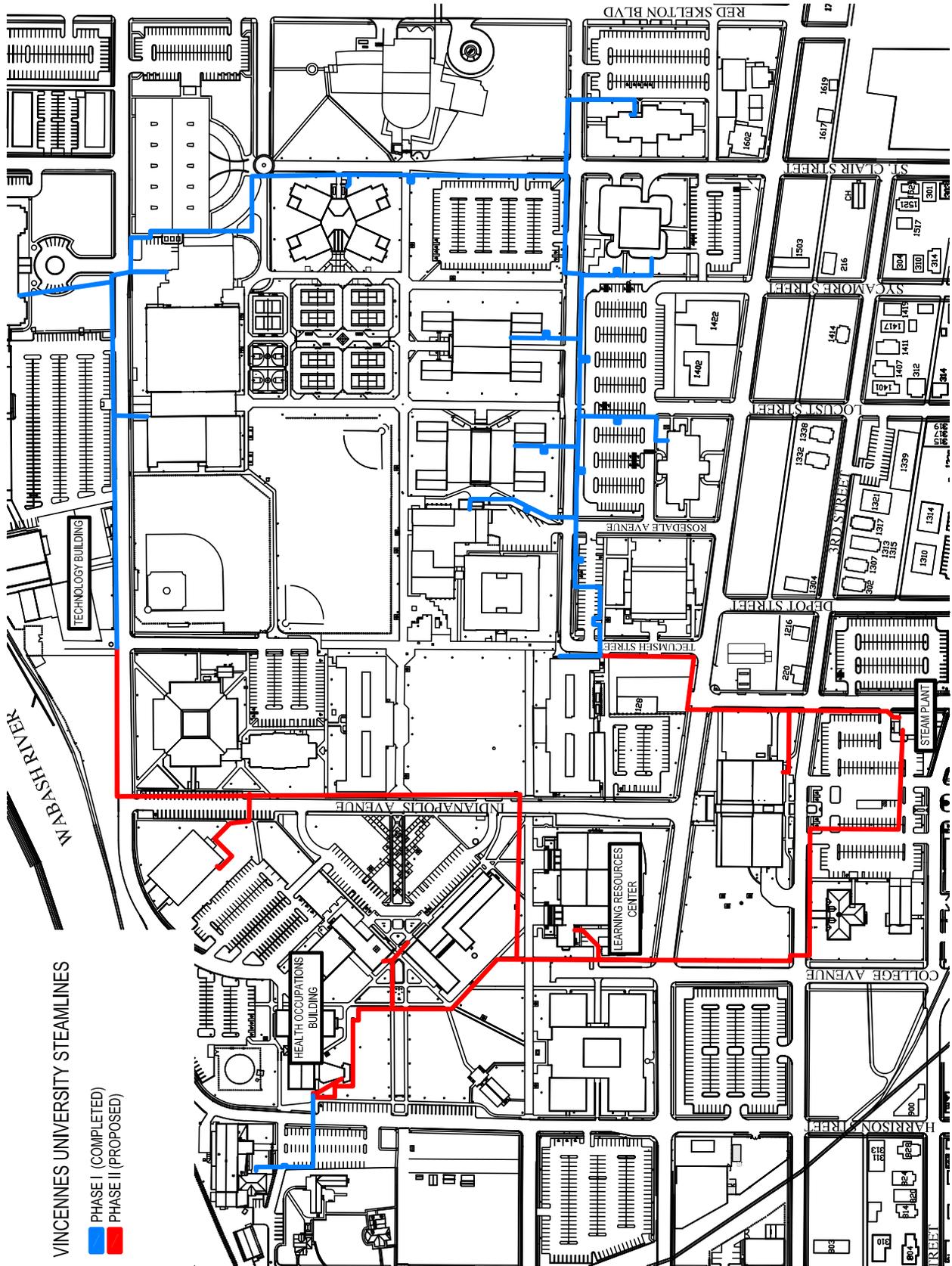
(1) Cost Basis is based on current cost prevailing as of: July 2012

**CAPITAL PROJECT OPERATING COST DETAILS**  
**FOR: INFRASTRUCTURE UPGRADE - SPECIAL REPAIR AND REHABILITATION**

<b>Institution:</b>	Vincennes University	<b>Budget Agency Project No.:</b>	E-1-13-2-02
<b>Campus:</b>	Vincennes	<b>Institutional Priority:</b>	3
<b>ANNUAL OPERATING COST/SAVINGS</b>			<b>GSF OF AREA AFFECTED BY PROJECT</b>
			N/A
	<b>Cost per GSF</b>	<b>Total Operating Cost</b>	<b>Personal Services</b>
		<b>Supplies and Expenses</b>	
1. Operations			
2. Maintenance			
3. Fuel			
4. Utilities	N/A	\$ (50,000)	
5. Other			
<b>TOTAL ESTIMATED OPERATIONAL COST/SAVINGS</b>		\$ (50,000)	\$ - \$ -
<b>Description of any unusual factors affecting operating and maintenance costs/savings.</b>			
Replacing decayed and corroded underground steam line infrastructure in Phase I resulted in substantial savings in both water and natural gas usage. VU anticipates comparable savings from Phase II of this project.			

# VINCENNES UNIVERSITY NEW SUB STATION





VINCENNES UNIVERSITY STEAMLINES

- PHASE I (COMPLETED)
- PHASE II (PROPOSED)

**PROJECT SUMMARY AND DESCRIPTION  
FOR: NEW SCIENCE AND MATHEMATICS BUILDING**

<b>Institution:</b>	Vincennes University	<b>Budget Agency Project No.:</b>	E-1-13-1-04
<b>Campus:</b>	Vincennes	<b>Institutional Priority:</b>	4
<b>Previously approved by General Assembly:</b>	<input type="checkbox"/> No	<b>Previously recommended by CHE:</b>	<input type="checkbox"/> No
<b>Part of the Institution's Long-term Capital Plan:</b>	<input type="checkbox"/> Yes		

**Project Summary Description:**  
 Located in the center of VU's academic buildings, the new 65,000 square foot Science and Mathematics Building will provide cutting edge science labs for several institutional programs, technology-integrated classrooms for mathematics and general education as well as a large lecture hall, tutoring rooms and small group breakout spaces. This state-of-the-art facility will provide educational space for students in the College of Science and Mathematics programs including: Biochemistry, Biology, Biotechnology, Chemistry, Chemistry-Education, Chiropractic, Clinical Laboratory Science, Earth Science, Engineering, Environmental Health Science, Food Science, Forensic Science, Forestry and Conservation, Geography, Geology, Mathematics, Natural Resources and Environmental Science, Nuclear Medicine Technology, Occupational Therapy, Optometry, Pharmacy, Pharmacy Technician, Physical Therapy, Physician Assistant, Physics, Pre-Dentistry, Pre-Med and Veterinary. The design of the new Science and Mathematics Building will have an emphasis on technology, energy efficiency and functional optimization in order to accommodate the lab equipment needed to train students in the diverse Science and Mathematics programs.

**Summary of the impact on the educational attainment of students at the institution:**  
 This new facility will provide students with the resources and education they need to succeed in the growing STEM-related fields. As leading Indiana companies produce more sophisticated products, they face a growing need for workers with higher skills. Many of the positions that were previously filled by high school graduates now require an A.S. or B.S. degree. VU's Science and Mathematics programs are designed to easily transfer to Indiana's four-year institutions. The new Science and Mathematics Building will provide students with adequate space and cutting-edge equipment to meet program needs for many years into the future.

<b>Project Size:</b>	<input type="text" value="65,000"/> GSF	<input type="text" value="55,000"/> ASF	<input type="text" value="0.85"/> ASF/GSF
<b>Net change in overall campus space:</b>	<input type="text" value="65,000"/> GSF	<input type="text" value="5,500"/> ASF	

<b>Total cost of the project:</b>	<input type="text" value="\$ 20,000,000"/>	<b>Cost per ASF/GSF:</b>	<input type="text" value="\$ 308"/> GSF
			<input type="text" value="\$ 364"/> ASF
<b>Funding Source(s) for project:</b>	<input type="text" value="\$ 15,000,000"/>	Bonding Authority (I.C. 21-34-6 through 10)	
	<input type="text" value="\$ 5,000,000"/>	Vincennes University and Private Contributions	
<b>Estimated annual debt payment (4):</b>	<input type="text" value="\$ 1,285,352"/>		
<b>Are all funds for the project secured:</b>	<input type="checkbox"/> Yes		
<b>Estimated annual change cost of building operations based on the project:</b>	<input type="text" value="\$ 247,000"/>		
<b>Estimated annual repair and rehabilitation investment (3):</b>	<input type="text" value="\$ 100,000"/>		

(3) Estimate the amount of funding the institution would need to set aside annually to address R&R needs for the project. CHE suggests 1.5% of total construction cost.  
 (4) If issuing debt, determine annual payment based on 20 years at 5.75% interest rate.

**PROJECT DETAILED DESCRIPTION - ADDITIONAL INFORMATION  
FOR: NEW SCIENCE AND MATHEMATICS BUILDING**

<b>Institution:</b>	Vincennes University	<b>Budget Agency Project No.:</b>	E-1-13-1-04
<b>Campus:</b>	Vincennes	<b>Institutional Priority:</b>	4

**Description of Project**

Located in the center of VU's academic buildings, the new Science and Mathematics Building will provide science labs for several institutional programs, technology-integrated classrooms for mathematics and general education as well as a large lecture hall, tutoring rooms and small group breakout spaces. This state-of-the-art facility will provide educational space for students in the College of Science and Mathematics programs including: Biochemistry, Biology, Biotechnology, Chemistry, Chemistry-Education, Chiropractic, Clinical Laboratory Science, Earth Science, Engineering, Environmental Health Science, Food Science, Forensic Science, Forestry and Conservation, Geography, Geology, Mathematics, Natural Resources and Environmental Science, Nuclear Medicine Technology, Occupational Therapy, Optometry, Pharmacy, Pharmacy Technician, Physical Therapy, Physician Assistant, Physics, Pre-Dentistry, Pre-Med and Veterinary. VU understands the importance of STEM-related careers to Indiana's economy. This new facility will provide students with the resources and education they need to succeed in these growing fields. As leading Indiana employers, such as large pharmaceutical companies, produce more sophisticated products and face stricter government regulations, they face a growing need for workers with higher skills. Many of the positions that were previously filled by high school graduates now require an A.S. or B.S. degree. VU's Science and Mathematics programs are designed to easily transfer to Indiana's four-year institutions. Vincennes University must have a facility that can support the educational and technological needs of these programs.

The design of the new Science and Mathematics Building will have an emphasis on technology, energy efficiency and functional optimization in order to accommodate the cutting-edge equipment needed to train students in the diverse Science and Mathematics programs.

**Need and Purpose of the Program**

Currently, the Science and Mathematics programs are housed in the McCormick Science Center. The \$1.5 million building was built in 1976 with a \$2 million addition added in 1984. With limited funding, the University built the most basic facility (\$58 per square foot) that could viably meet the essential needs of the programs. Although the University has made great efforts to maintain the building as a high-quality educational facility, it is now clear that the facility is too small and inadequate for the educational and functional needs of the Science and Mathematics programs. Science education requirements and space needs have changed significantly over the last 35 years. With ever-changing technologies, such as computer simulation, spaces need to be larger and more open, flexible and adaptable. The current facility and its infrastructure do not provide this adaptable space to support the changing needs of the Science and Mathematics programs. The spaces currently being used are not adequate for the safe installation and use of cutting-edge equipment and instruction. Labs are too small and in some cases deteriorating from years of use. Despite the best effort to maintain this building, it has become clear that the facility is not suited for the function it currently holds. The new facility will provide students with adequate space and equipment to meet the Science and Mathematics program needs for many years into the future.

**Space Utilization**

The new Science and Mathematics Building will add 55,000 square feet of usable space to the Vincennes campus. The existing McCormick Science Center (41,000 square feet) will remain as an area used for general education classrooms and will serve as an annex for the Science and Mathematics Building. The only space that will be removed from campus is the existing baseball field that is in the process of being relocated to a more suitable location.

**Comparable Projects**

Vincennes University has constructed several buildings in recent years that have provided similar cost information as is projected for this project. The 54,377 square foot Gibson County Center for Advanced Manufacturing and Logistics was completed in 2011 at a cost of \$12 million (\$221 per square foot). VU also completed a new 54,137 square foot Jasper Classroom Building in 2010 at a cost of \$12 million (\$222 per square foot). Due to the technological infrastructure needs of the science labs, the new 65,000 square foot Science and Mathematics Building will be constructed at a cost of \$308 per square foot.

**Background Materials**

N/A

**CAPITAL PROJECT REQUEST FORM**  
**INDIANA PUBLIC POSTSECONDARY EDUCATION**  
**FOR: NEW SCIENCE AND MATHEMATICS BUILDING**

	Current Space in Use	Space Under Construction	Space Planned and Funded	Subtotal Current and Future Space	Space to be Terminated	New Space in Capital Request	Net Future Space
<b>NEW SCIENCE AND MATHEMATICS BUILDING (E-1-13-1-04)</b>							
<b>A. OVERALL SPACE IN ASF</b>							
Classroom (110 & 115)				-		18,650	18,650
Class Lab (210,215,220,225,230,235)				-		21,560	21,560
Nonclass Lab (250 & 255)				-		-	-
Office Facilities (300)				-		3,790	3,790
Study Facilities (400)				-		-	-
Special Use Facilities (500)				-		-	-
General Use Facilities (600)				-		5,500	5,500
Support Facilities (700)				-		5,500	5,500
Health Care Facilities (800)				-		-	-
Resident Facilities (900)				-		-	-
Unclassified (000)				-		10,000	10,000
<b>B. OTHER FACILITIES</b>							
(Please list major categories)							
<b>TOTAL SPACE</b>	-	-	-	-	-	<b>65,000</b>	<b>65,000</b>

**CAPITAL PROJECT COST DETAILS  
FOR: NEW SCIENCE AND MATHEMATICS BUILDING**

<b>Institution:</b> Vincennes University	<b>Budget Agency Project No.:</b> E-1-13-1-04
<b>Campus:</b> Vincennes	<b>Institutional Priority:</b> 4

**ANTICIPATED CONSTRUCTION SCHEDULE**

	<b>Month</b>	<b>Year</b>
<b>Bid Date</b>	July	2013
<b>Start Construction</b>	August	2013
<b>Occupancy (End Date)</b>	August	2014

**ESTIMATED CONSTRUCTION COST FOR PROJECT**

	<b>Cost Basis (1)</b>	<b>Estimated Escalation Factors</b>	<b>Project Cost</b>
<b><u>Planning Costs</u></b>			
a. Engineering	\$ 400,000		\$ 400,000
b. Architectural	\$ 700,000		\$ 700,000
c. Consulting	\$ 200,000		\$ 200,000
<b><u>Construction</u></b>			
a. Structure	\$ 13,000,000		\$ 13,000,000
b. Mechanical (HVAC, plumbing, etc.)	\$ 3,000,000		\$ 3,000,000
c. Electrical	\$ 2,000,000		\$ 2,000,000
<b><u>Movable Equipment</u></b>			\$ -
<b><u>Fixed Equipment</u></b>			\$ -
<b><u>Site Development/Land Acquisition</u></b>	\$ 700,000		\$ 700,000
<b><u>Other (Please list)</u></b>			\$ -
<b>TOTAL ESTIAMTED PROJECT COST</b>	<b>\$ 20,000,000</b>	<b>\$ -</b>	<b>\$ 20,000,000</b>

(1) Cost Basis is based on current cost prevailing as of: September 2012

**CAPITAL PROJECT OPERATING COST DETAILS  
FOR: NEW SCIENCE AND MATHEMATICS BUILDING**

<b>Institution:</b>	Vincennes University	<b>Budget Agency Project No.:</b>	E-1-13-1-04
<b>Campus:</b>	Vincennes	<b>Institutional Priority:</b>	4
			<b>GSF OF AREA AFFECTED BY PROJECT</b>
			65,000
<b><u>ANNUAL OPERATING COST/SAVINGS</u></b>			
	<b>Cost per GSF</b>	<b>Total Operating Cost</b>	<b>Personal Services</b>
			<b>Supplies and Expenses</b>
1. Maintenance	\$ 0.85	\$ 55,000	\$ 45,000
2. Utilities	\$ 2.83	\$ 184,000	\$ 184,000
3. Other	\$ 0.12	\$ 8,000	\$ 8,000
<b>TOTAL ESTIMATED OPERATIONAL COST/SAVINGS</b>	<b>\$ 3.80</b>	<b>\$ 247,000</b>	<b>\$ 45,000</b>
<b>Supplies and Expenses</b>			
<b>\$ 202,000</b>			
<b>Description of any unusual factors affecting operating and maintenance costs/savings.</b>			
N/A			

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