

# PURDUE

UNIVERSITY

OFFICE OF THE EXECUTIVE VICE PRESIDENT FOR  
BUSINESS AND FINANCE, TREASURER

April 24, 2012

The Honorable Mitchell E. Daniels, Jr.  
Governor of the State of Indiana  
State House  
Indianapolis, IN 46204

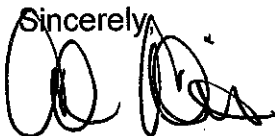
Dear Governor Daniels:

The financing and construction of the project, "Heine Pharmacy Ground Floor Lab Renovations Phase II" on the West Lafayette campus has been approved as required under the Bylaws of the Board of Trustees of Purdue University.

This project will renovate and reconfigure lab and office space in the north section of the ground floor of the Heine Pharmacy Building to bring facilities up to current standards for pharmaceutical research. Graduate and post doctorate desk spaces will be created apart from the lab space, to increase lab safety.

The estimated cost of this project is \$1,300,000, to be funded from Industrial and Physical Pharmacy Gift Funds (\$550,000), Repair and Rehabilitation – University Funds – 11-12 F&A (\$500,000), and Repair and Rehabilitation – University Funds – 2011 Matching Funds (\$250,000).

Subject to review by the Commission for Higher Education and recommendation by the State Budget Committee and the Budget Agency, we request your approval to proceed with this project. Attached are the completed forms which the Commission has prescribed for its review of such projects. We will be happy to answer any questions you or your staff may have or to provide any additional information you may wish.

Sincerely,  


A.V. Diaz  
Executive Vice President for  
Business and Finance, Treasurer

/bjm

Attachments

c: Jason Dudich, Associate Commissioner and Chief Financial Officer  
Adam Horst, State Budget Director  
Mary Catherine Gaisbauer, Comptroller  
Kevin Green, Assistant Director of Capital Planning

## Project Summary

### MAJOR REPAIR AND REHABILITATION

**INSTITUTION:** PURDUE UNIVERSITY **CAMPUS:** WEST LAFAYETTE  
**PROJECT TITLE:** Heine Pharmacy Building Ground Floor Lab Renovations Phase II **BUDGET AGENCY NO.:** B-1-12-2-15  
**INSTITUTION'S PRIORITY:** \_\_\_\_\_

#### PROJECT SUMMARY DESCRIPTION (ATTACHMENT A)

Renovate and reconfigure lab and office space in the North section of the ground floor of the Heine Pharmacy Building to bring facilities up to current standards for pharmaceutical research. Graduate and post doctorate desk spaces will be created apart from the lab space, to increase lab safety.

#### SUMMARY OF NEED AND NET CHANGE IN CONTRIBUTION TO EDUCATIONAL SERVICES PROVIDED BY INSTITUTION (ATTACHMENT B)

**NEED:** The existing facility is approximately 30 years old and consists of separate "closed format" 18' x 20' labs. Layout, HVAC, security and electrical systems are inadequate. Seating for research personnel is available only within the laboratories. This exposes grad students, postdocs and other personnel to laboratory hazards when conducting desk work.

**CONTRIBUTION TO EDUCATIONAL SERVICES:** The renovation will improve research laboratory space in the School of Pharmacy and Pharmaceutical Sciences. This will contribute to graduate education and to the University's research mission.

#### SPACE DATA (ATTACHMENT C)

AREA AFFECTED BY THE PROJECT:	<u>3,702</u>	GSF	<u>3,702</u>	ASF		
PROJECT SIZE:	<u>3,702</u>	GSF	<u>3,702</u>	ASF	<u>1</u>	ASF/GSF
NET CHANGE IN CAMPUS ACADEMIC/ADMINISTRATIVE SPACE:			<u>0</u>	ASF		

#### TOTAL PROJECT BUDGET (ATTACHMENT D)

TOTAL ESTIMATED COST:	<u>\$ 351.16</u>	\$/GSF	<u>\$ 1,300,000</u>
ANTICIPATED DATE OF PROJECT COMPLETION:	<u>January 2013</u>		

#### ANTICIPATED SOURCES OF FUNDING (ATTACHMENT E)

##### NAME OF SOURCE OF FUNDS:

Industrial and Physical Pharmacy Gift Funds	<u>\$550,000</u>
Repair and Rehabilitation – University Funds – 11-12 F&A	<u>500,000</u>
Repair and Rehabilitation – University Funds – 2011 Matching Funds	<u>250,000</u>

TOTAL BUDGET \$ 1,300,000

#### ESTIMATED CHANGE IN ANNUAL OPERATING BUDGET AS A RESULT OF THIS PROJECT (ATTACHMENT F)

\$ N/A INCREASE DECREASE

NOTE: SEE ATTACHMENTS FOR SUPPORTING INFORMATION REQUEST TO BE SUBMITTED WITH PROJECT SUMMARY FORM.

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DESCRIPTION OF THE PROJECT:

Renovate and reconfigure lab and office space in the North section of the ground floor of the Heine Pharmacy Building to bring facilities up to current standards for pharmaceutical research. Graduate and post doctorate desk spaces will be created apart from the lab space, to increase lab safety.

PLANNING CHANGES:

N/A

RELATIONSHIP TO OTHER CAPITAL IMPROVEMENT PROJECTS:

This project will precede the construction of the new drug development building. It will also precede the anticipated staged construction of a new school of pharmacy building for which fundraising is in process. Renovation in this project will provide functional laboratory space that is desperately needed prior to completion of these larger projects. This renovation will address the current shortage of usable lab space and allow the department to accommodate researchers who are currently forced to rent lab space off campus.

HISTORICAL SIGNIFICANCE:

N/A

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### RELATIONSHIP TO MISSION AND LONG-RANGE PLANNING

The mission of the Purdue University School of Pharmacy and Pharmaceutical Sciences (SoPPS) is to educate and train students to become leading pharmacists and scientists, to advance scientific discovery and development, and to maximize global health outcomes through patient care and public service. The Department of Industrial and Physical Pharmacy (IPPH) is one of three departments in SoPPS. The department's mission involves research in drug development, formulation and manufacturing; teaching in professional (Pharm.D.), bachelor's (B.S.P.S.) and graduate degree programs; and engagement with the biopharmaceutical industry, regulatory agencies, and health-related foundations worldwide. The department currently has 13 tenure-track faculty (11.65 FTE), fifty-six researchers (i.e., graduate student, undergraduate student, postdoctoral, visiting scientist, technician), and five full- or part-time support staff. The renovation will advance the research mission of both SoPPS and IPPH and will facilitate enhanced education students at all levels.

The 2008-2014 strategic plan for SoPPS includes strategic directions designed to increase levels of research funding from external sources (Goal II, Strategic Direction 1) and to provide cutting edge graduate education in the pharmaceutical sciences (Goal IV, Strategic Direction 2). The renovation will address both these school-level goals. The strategic plan for IPPH is under development and will include strategic directions to improve the department's laboratory and office space. As described below, the long-range plan for SoPPS includes construction of a new pharmacy building. The renovation is necessary to support the school's research and graduate education mission in the interim.

### NEED AND EXPECTED CONTRIBUTION TO EDUCATIONAL SERVICES:

Need. – The need for the renovation is documented by: (i) assessment of the quality of the laboratory space by an engineer in the EES Department and by departmental faculty, (ii) architectural assessment of the facility by the A/E and (iii) mechanical assessment of the facility by the A/E. Item (i) was conducted as part of a research laboratory space evaluation conducted by the School of Pharmacy and Pharmaceutical Sciences in the fall of 2009. Items (ii) and (iii) were performed as part of an NIH G20 proposal submission in the fall of 2009. These assessments are summarized below.

(i) Lab quality assessment. - Laboratory quality was assessed using a five-point scale obtained from the Purdue Office of the University Architect (OUA). In this scale, a score of "1.0" represents best-quality space requiring no renovation and "5.0" represents worst-quality space. Quality scores were assigned by a group of three IPPH faculty members and separately by an engineer in the EES Department and a staff member of SoPPS. Each group of evaluators assigned a quality score to each laboratory in use by the department. The IPPH faculty group assigned scores of 3.0 to 5.0 to these labs, while the EES engineer and staff member of SoPPS assigned a score of 3.25. Scores of both groups indicate need for renovation.

(ii) Architectural status. – A registered architect and Associate Director for Project Coordination with BSA LifeStructures (Indianapolis, IN), conducted the evaluation of the architectural status of the current facility.

The existing facility is approximately 30 years old and is located in a concrete frame building with a brick exterior and limestone trim (Robert E. Heine Pharmacy Building, RHPH). The laboratories were designed in a "closed" format, with ~18 x 20 ft. labs serving as the basic design module. The interior partitions are typically constructed of 6", painted concrete masonry units (CMU's) laid out in generic laboratory bays or modules of approximately 17'-22' in width and 20' in depth. Ceilings are exposed to the structure above, and doors are solid wood with hollow metal frames. Laboratory casework is wood with epoxy tops. Each typical laboratory bay of approximately 400 sq. ft. has either a 4' or 6' chemical fume hood. The existing asbestos floor tile is still in place and will need to be abated. There is an existing passenger elevator located at the center of the facility for student and public use, and a service elevator is located in the loading dock area for product, material, and equipment deliveries. The existing segmented laboratory layout does not allow for interconnectivity and is not conducive to current and proposed functions and processes.

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(iii) Mechanical / engineering status. – The Senior Director of Engineering Planning/Design for BSA LifeStructures conducted the evaluation of mechanical / engineering systems in the current facility and addressed HVAC, plumbing, fire protection, electrical and security systems. The evaluation is summarized below.

HVAC is judged inadequate for the current facility and for the proposed renovation. The ground level of RHPH is served by four (4) air handling units and by smaller fan coil units. Three of the air handling units serve office and laboratory space for the five-story building (ACB-1, 22,680 CFM; ACB-3, 4940 CFM; ACB-9, 39,810 CFM), are original to the structure (ca 1970) and are beyond their useful life expectancy. The fourth (ACG-6, 2,000 CFM, installed 1987) serves the pharmaceutical manufacturing area, is a "dry air" system and is approaching its useful life expectancy. To improve control of temperature and RH, fan coil units ("chiller coolers") have been installed in several existing labs. Individual exhaust fans located in the penthouse exhaust the ground floor laboratory areas via a vertical service chase. A portion of the current facility is exhausted by a special fan that discharges into an area way. To maintain adequate temperature and RH control, and to separate air handling systems for the PPPE-CF from those for the rest of the structure, new HVAC systems dedicated to the core facility will be added during renovation.

Plumbing is judged to be adequate for the current facility and will support the proposed renovation. Building services available for the facility include domestic cold hard water, domestic soft cold water, domestic hot soft water, sanitary waste, storm sewer, compressed air (90 PSIG), acid waste, chilled water, natural gas, steam (5, 30, 70,150 PSIG), oxygen, vacuum and distilled water.

Electrical systems are judged to be adequate for the current facility and will support the proposed renovation. The campus is served by an on-site power generation plant, with an underground distribution system and step-down transformers servicing individual buildings. At present, the facility has one (1) 120/240 VAC, 3 phase, 4 wire power service and one 120/208 VAC, 3 phase 4 wire lighting service liquid type transformer. No genset is located on site. However, there is a portable genset connection arrangement provided (600A, 120/240 VAC, 1 phase, 3 wire system with manual transfer switch arrangement). Battery package power is used for egress and exit lighting. Since the facility total area will remain unchanged with similar egress and exit lights, no new genset for emergency power is anticipated; the current system will be maintained and reused. Electrically-based fire alarm and IT-telecon systems are generally adequate. The current lighting system employs ceiling recessed, prismatic plastic lens in corridors and storage rooms with some parabolic lighting in remodeled areas. Lighting systems are judged to be inefficient and lack high efficiency ballasts, lamps and lighting controls (e.g., occupancy sensors) to support optimization of energy performance.

Fire Protection is judged to be adequate for the current facility and will support the proposed renovation. Fire protection is delivered from the campus domestic water system with a separate feed from outside the building. The building is partially sprinklered including most of the ground level where the core facility is located.

Security is judged to be marginally adequate for the current facility and inadequate for the renovation. In the ground level of RHPH, individual laboratories are secured by key access, with some card-key and code entry in current manufacturing labs (e.g., G10). The facility does not have exterior-door access control. No CCTV, camera, or security monitoring station within the facility is provided.

Contribution to educational services. – The proposed renovation will improve research laboratory space in the Department of Industrial and Physical Pharmacy. The space will be used to train graduate, undergraduate and postdoctoral researchers in the department.

### ALTERNATIVES CONSIDERED:

Several alternatives to the project have been considered: (i) use of the current space without renovation, (ii) use of additional off-campus rental space, (iii) renovation of alternative on-campus laboratory space and (iv) construction of new laboratory space in new buildings. Each of these alternatives is discussed below.

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(i) Use of current space without renovation. – As noted above, the current space is architecturally and mechanically inadequate. The laboratory is not equipped for state-of-the-art pharmaceutical biotechnology research conducted by Dr. Topp and her group, particularly with regard to instrument requirements and HVAC. The closed lab format does not allow for efficient work flow. The current space does not allow for seating of graduate students and other research personnel outside the laboratory, a significant safety consideration. Finally, renovated laboratory space was committed to Dr. Topp as part of her start-up package. Thus, use of the current space without renovation is judged unacceptable.

(ii) Use of additional off-campus rental space. – As a result of space limitations, several faculty members in IPPH occupy rental space in PRP. Dr. Topp's role as Department Head requires her presence on campus, so this option is not acceptable.

(iii) Alternative on-campus space. – The only available space on-campus is a portion of the Lilly building. Since this facility is scheduled for demolition, renovation will not be allowed. Current space in Lilly is not adequate for research needs, having limitations similar to those of RHPH. This option is therefore unacceptable.

(iv) Laboratory space in new buildings. – It is highly unlikely that new buildings dedicated to drug discovery and to a new school of pharmacy will be completed before 2015. Renovated space for use by Dr. Topp and/or other IPPH researchers will be needed before, during and after these larger capital projects. Waiting for their completion would force cessation of research in Dr. Topp's group in the interim, an unacceptable option.

PRIORITY RANKING:

N/A

RELATIONSHIP TO LONG-RANGE FACILITY PLANS:

Sufficient, functional lab space and safe graduate student desk space is critical to the continuation of research in Industrial and Physical Pharmacy. This renovation will address the current shortage of usable lab space and allow the department to accommodate researchers who are currently forced to rent lab space off campus.

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**CAMPUS ACADEMIC/ADMINISTRATIVE SPACE:**

Gross Square Footage: 9,943,779 Assignable Square Footage: 5,963,068

**TOTAL AREA IN FACILITY OR STRUCTURE: (Robert E. Heine Pharmacy Building)**

Gross Square Footage: 149,349 Assignable Square Footage: 85,103

PROVIDE A TABULAR BREAKDOWN OF THE FACILITY'S ASSIGNABLE AREA AS PRESENTLY USED AND AS PLANNED UPON COMPLETION OF THE PROJECT:

	ASF		
	TOTAL BUILDING	FUTURE USE	PRESENT USE
<b><u>INSTRUCTION AND LIBRARY SPACE</u></b>			
(a) Classroom (110,115)	<u>3,816</u>	<u>3,816</u>	<u>3,816</u>
(b) Class Laboratories (210,215,220,225)	<u>8,838</u>	<u>8,838</u>	<u>8,838</u>
(c) Libraries (410 thru 455)	<u>6,209</u>	<u>6,209</u>	<u>6,209</u>
(d) All Other	<u>0</u>	<u>0</u>	<u>0</u>
Subtotal	<u>18,863</u>	<u>18,863</u>	<u>18,863</u>
<b><u>INSTRUCTION RELATED</u></b>			
(e) Office (310 thru 355)	<u>22,818</u>	<u>22,818</u>	<u>22,818</u>
(f) All Other	<u>0</u>	<u>0</u>	<u>0</u>
Subtotal	<u>22,818</u>	<u>22,818</u>	<u>22,818</u>
<b><u>RESEARCH SPACE</u></b>			
(g) Non-Class Laboratories (250,255)	<u>36,128</u>	<u>36,128</u>	<u>36,128</u>
(h) Other	<u>0</u>	<u>0</u>	<u>0</u>
Subtotal	<u>36,128</u>	<u>36,128</u>	<u>36,128</u>
<b><u>HEALTH CARE SPACE (SUBTOTAL)</u></b>	<u>0</u>	<u>0</u>	<u>0</u>
<b><u>RELATED SUPPORTING FACILITIES</u></b>	<u>7,294</u>	<u>7,294</u>	<u>7,294</u>
<b><u>SUBTOTAL</u></b>	<u>85,103</u>	<u>85,103</u>	<u>85,103</u>
<b><u>OTHER ASSIGNABLE SPACE (SUBTOTAL)</u></b>	<u>0</u>	<u>0</u>	<u>0</u>
<b><u>TOTAL</u></b>	<u>85,103</u>	<u>85,103</u>	<u>85,103</u>

**Attachment D  
Project Cost**

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<u>ANTICIPATED CONSTRUCTION SCHEDULE</u>		<u>MONTH</u>	<u>YEAR</u>
Bid Date		<u>May</u>	<u>2012</u>
Start Construction		<u>June</u>	<u>2012</u>
Occupancy		<u>January</u>	<u>2013</u>
 <u>ESTIMATED CONSTRUCTION COST:</u>			
	<u>PROJECT COST BASIS (a)</u>	<u>ESCALATION FACTORS (b)</u>	<u>ESTIMATED PROJECT COST (c)</u>
Planning Costs			
Academic Facilities Planning Fund	\$	\$	\$
Other Architectural Fee	\$	\$	\$ 65,000
Construction Structure			
Structure	\$	\$	\$ 285,000
Mechanical (Plumbing, HVAC, Elevators)	\$	\$	\$ 125,000
Electrical	\$	\$	\$ 225,000
Movable Equipment	\$	\$	\$
Fixed Equipment	\$	\$	\$ 275,000
Site Development/Land Acquisition	\$	\$	\$
Other (Supervision and testing, PM fees, insurance, contingencies)	\$	\$	\$ 325,000
<b>Total Estimated Project Cost</b>	<b>\$</b>	<b>\$</b>	<b>\$ 1,300,000</b>

(a) Based on current costs prevailing as of (month, year) March 2012

(b) Explain the basis for arriving at this estimate  
Architect's estimate from construction documents

(c) Description of unique building characteristics, design features, construction materials, site development factors or other considerations affecting cost estimates on a separate page immediately following.



Attachment E  
Source(s) of Funding

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ESTIMATED TOTAL PROJECT COST: \$ 1,300,000

SOURCES OF FUNDING:

Prior Appropriation (Acts of \_\_\_\_\_ ) \$ \_\_\_\_\_

State Appropriation Requested \$ \_\_\_\_\_

Bonding Authority (Acts of 1965) \$ \_\_\_\_\_

Bonding Authority (Acts of 1929) \$ \_\_\_\_\_

Lease Purchase \$ \_\_\_\_\_

Other: Departmental Gift Funds \$550,000

Repair and Rehabilitation –  
University Funds – 11-12  
F&A 500,000

Repair and Rehabilitation –  
University Funds – 2011  
Matching Funds 250,000

(specify)

EXPLANATION OF ANY UNIQUE FUNDING FEATURES:

**Attachment F  
Estimated Change in Operating Costs**

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GROSS SQUARE FOOTAGE OF AREA AFFECTED BY PROJECT: 3,702 GSF

ANNUAL OPERATING COST:

	COST PER SQUARE FOOT	TOTAL COST	PERSONNEL SERVICES	SUPPLIES AND EXPENSE
Operations	\$ _____	\$ _____	\$ _____	\$ _____
Maintenance	\$ _____	\$ _____	\$ _____	\$ _____
Fuel	\$ _____	\$ _____	\$ _____	\$ _____
Utilities	\$ _____	\$ _____	\$ _____	\$ _____
Other	\$ _____	\$ _____	\$ _____	\$ _____
<b>TOTAL</b>	\$ _____	\$ _____	\$ _____	\$ _____

LESS OPERATING COST OF:

Existing Area Affected (Office Space)	\$ _____	\$ _____	\$ _____	\$ _____
*Other Space Affected	\$ _____	\$ _____	\$ _____	\$ _____
<b>ESTIMATED CHANGE IN COST</b>		\$ <u>N/A</u>	\$ <u>N/A</u>	\$ <u>N/A</u>

DESCRIPTION OF ANY UNUSUAL FACTORS AFFECTING OPERATING AND MAINTENANCE COST:

DESCRIPTION OF ANTICIPATED PLANT EXPANSION REQUEST

Of the above "Estimated Change In Cost," what amount (if any) will be requested as a "plant expansion" adjustment to the Institution's operating budget? Beginning on what date? Based on current costs prevailing as of (month, year)

N/A