Student Sustainability Committee

Graduate Rehearsal Dance Space

Project Lead Contact Information

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Department: School of Architecture

I. Detailed Project Description

A. Abstract

The Department of Dance and the School of Architecture are seeking funds to support the cost of the second phase of a sustainable renovation of the East Art Annex 2, an underutilized, brick building on the South Quad. Upon its completion, the School of Architecture and the Department of Dance would be gaining 4,000-5,000 square feet of valuable student space. The East Art Annex 2 will be a demonstration of shared creative space between Dance and Architecture where seminars, studios, and discussions can be held to conduct interdisciplinary discourse on creativity and sustainability. Phase I of this project, a 2,000 square foot temporary rehearsal dance space, will be completed by the end of this semester, May 2009 (see supplement 1 + 2). Our goal is to have the second phase completed by December 2009, which includes the design and installation of an additional graduate rehearsal studio and energy efficient updates to the second floor of the building. Our long-term goal is to completely renovate the entire building and bring it up to LEED Certification (Phase III).

The Dance Department and the School of Architecture look to the East Art Annex 2 to be a flagship for the University Strategic Plan. The building will be a concrete emblem of the mission of the institution within a short time frame. The building will highlight these specific University goals:

1. To be a leader in radical new technologies, practices and policies in sustainable energy
2. To facilitate the incorporation of technology and the arts
3. To highlight interdisciplinary collaborations
4. To facilitate health and wellness into departmental and campus life

This project will also make a significant impact on the Department of Dance. Dance currently has 20,000 square feet of studio/office space, but the studios are filled with classes and are frequently unavailable to graduate students. This graduate rehearsal space will attract exceptional students to Dance at Illinois and significantly increase their depth of engagement as they strive to be innovators, entrepreneurs, creators, educators and leaders. We believe the South Quad is an ideal location conducive to interdisciplinary collaborations. Visible to the Main and Undergraduate Libraries, the East Art Annex 2 is also in close proximity to the School of Art + Design, Fine and Applied Arts College Offices, and the College of Agricultural and Environmental Sciences Library. This area of campus receives a great deal of foot traffic making it highly visible within the campus community.

Our ambition is to catapult the College of Fine and Applied Arts into the national discussion on how to initiate a more ecologically responsible campus. Demonstrating longevity within the existing fabric of the University is necessary and will promote our institution as a viable member of the environmentally conscious. The rehearsal space will provide a scenario for sustainable rehabilitation of underutilized space on campus with the use of environmentally friendly materials applied with innovative and contemporary design solutions.

We anticipate continuing our goal to develop a LEED certified building through these methods of sustainable design in Phase III:

1. Use recycled, local materials to advance interests in reusing old materials for new use

- Specifically reusing wood from donated barns located in Des Moines, Iowa (see supplement 4)

2. Install energy efficient lighting controlled by motion detectors
3. Apply shading devices on the outside of the building to protect from sun infiltration
4. Roof Insulation – higher R-Value to keep heating and cooling costs to a minimum
5. Low-E Energy Efficient Windows

B. History / Background

Through an architectural seminar conducted by Architecture faculty Roger Hubeli and Julie Larsen, students are engaging in an intellectual as well as practical, hands-on educational experience by designing and installing Phase I of the graduate dance rehearsal space on the second level of the East Art Annex 2. In this seminar, currently being offered in Spring 2009, students are charged with designing a floating dance studio from primarily recycled products. (see supplement 3)

Last semester, we secured the remains of an old basketball court from the ARC to utilize for the special sprung floor necessary for dancers. We are currently researching other existing, reusable materials to form interior walls, furniture, etc. in order to create a more cohesive space that maintains the integrity of sustainable qualities throughout the building. The concept of the floating studio in Phase I allows dancers to utilize this space while we seek a larger commitment for funding. When we are ready to renovate the entire building, the floating studio will be dismantled and reinstalled, thus recycling the materials once again.

C. Comparison to other Sustainable Campus Projects

-*Business Instructional Facility – University of Illinois*
The integral approach to sustainable materials as well as sustainable systems makes this building one of the most energy efficient buildings on campus.

-Alice H. Cook House – *Cornell University*
More than 95 percent of materials for the renovation of this dorm were recycled, proving that a recycling strategy has potential to save embodied energy as it sets up a situation for unique design approaches.

-*Samuel Trask Dana Building – University of Michigan*
The renovation and restoration of this important historical building emphasize the University's commitment to sustainability in both a technological as well as a cultural way.

-*Sculpture Building and Gallery – Yale University*
This new building for the Yale's Sculpture Department has a unique ventilation system that is integral to the buildings climate comfort and an important aspect for its LEED Platinum certification.

II. Budget and Fundraising

A. Detailed Budget

Priority 1				
Category	Material Item	Amount	Cost	Justification
Dismantling Pre-Existing Barn	2 weeks of labor for 2.5 barns		$6,000.00	recycled for use in dance space
Transportation Costs to Iowa	1 vehicle		$100.00	
Transportation Costs to Champaign	Class 1 Railway		$1,050.00	
Finished Dance Space				
Temporary Mobile Sprung Floor		2200 SF	$2,400.00	Necessary for dance rehearsal
Physical Therapy Space		200 SF	$800.00	custom made from barn wood cabinetry, table
Editing Suite + Archival Library		300 SF	$1,000.00	cabinetry, shelving, (2) workstations
Body / Think Space		300 SF	$800.00	cabinets
Low VOC Paint			$700.00	
Experimental Mock-ups			$500.00	Full scale studies
Labor Costs			$8,000.00	Approximate
Exterior Shading Devices	provided for 18 windows	6	$3,000.00	custom made from barn wood
SUB-TOTAL			**$24,350.00**	
Priority 2				
Category	Material Item	Amount	Cost	Justification
Energy Efficient Lighting				
Light Emitting Diode (LED) Lighting	Energy Star	30	$2,640.00	
Motion Sensor Switches	Energy Star	6	$300.00	
Labor Costs			$2,000.00	Approximate
Roof Insulation				
30 R-Value Fiberglass Insulation	4000 SF in Roof	4000 SF	$3,000.00	
New Acoustic Ceiling Tiles			$4,000.00	for better sound quality in dance space
Labor Costs			$1,600.00	
SUB-TOTAL			**$13,540.00**	
Priority 3				
Category	Material Item	Amount	Cost	Justification
Energy Efficient Low-E Windows				
Renovation Windows		18	$9,000.00	based on assessment of construction
Labor Costs			$12,000.00	
SUB-TOTAL			**$21,000.00**	
Donated Material				
Reclaimed Barn Wood	Recycled from 2.5 existing barns	-	$25,000.00	Approximate Value
TOTAL FUNDING REQUEST			**$58,890.00**	

*The project will be able to move forward without the Student Energy Committee granting the full requested amount

B. Fundraising

Phase I (see supplement 5)

- University of Illinois Campus Research Board – $12,455: Monies to fund materials, design research and a graduate assistant
- Department of Dance – $5000: Purchase and installation of fireproof doors; letter of support from Jan Erkert, Head
- College of Fine and Applied Arts, Dean's Office – $1725: ; letter of support from Robert Graves, Dean
- Private Donations – $1280 as of 3/12/09:
- School of Architecture – 2nd Floor East Art Annex 2 (in-kind); letter of support from David Chasco, Director
- In-kind donations from local building supplies and hardware stores (pending): tool rental

Phase II (see supplement 6)

- Campus Sustainability (pending)

Phase III (We will be in contact with these organizations in the next month with the help of members of the University Advancement Office)

- Illinois Clean Energy – We will be submitting a grant request due 7/20/09
- Kresge Foundation – We will be submitting a grant request due 3/31/10

III. Timeline

The first phase of the project will be finished at the end of the Spring Semester 2009. This project will form the base for the second phase for which the requested funds are needed.

- Start of Phase II:	August 24 (Beginning of Fall Semester 2009)
- Cleaning out the facility:	August
- Development of furniture designs in seminar:	September - mid October
- Production of dance floor (off site):	September
- Renovation of lighting system:	Mid October
- Installing dance floor / windows / insulation:	November
- Opening event:	December 5*

*The project will be completed no later than **December 9, 2009** (last day of instruction in the Fall Semester).

IV. Energy, Environmental, Social and Economic Impact

A. Renewable Energy

We have the potential to secure additional material for the project from a farm in Des Moines, Iowa (see supplement 4). There are three well-intact wood barns available, free of charge to the University that we anticipate using in Phase II for the additional dance floor, shading devices, and partitions needed for the office spaces. This would provide a clean energy resource because we will be reusing a substantial amount of reclaimed barn wood. We would also be using a local, vernacular material and transportation costs would be at a minimum to bring the wood from Des Moines to Champaign.

Due to the embodied energy in these existing buildings, its material would be wasted if land filled or burned; every effort needs to be made to recycle these materials. Instead of tearing down buildings no longer in use, our energy is better served in dismantling and reusing, a practice that is standard in some European countries, such as Switzerland. Utilizing the wood from these old barns will allow us to maintain the embodied energy of the wood by reusing it for floors, furniture and exterior sun shading devices.

The following calculations exemplify the embodied energy saved through the reuse of the barn wood (embodied energy in lumber 39 MJ/QF)[1]:

Lumber for floors approx.	200 QF (2400 SF x 1"):	7,800 MJ
Lumber for furniture approx.	50 QF:	1950 MJ
Lumber for shading devices	30 QF (6 windows 60 SF x 1"):	1170 MJ
Total amount of embodied energy preserved:		**10,900 MJ**

[1] http://www.canadianarchitect.com/asf/perspectives_sustainibility/measures_of_sustainablity/measures_of_sustainablity_embodied.htm – retrieved March 2009

Based on our calculations, the embodied energy of a new, wooden construction (derived from a new material's life cycle, which consists of: raw material, manufacturing, and transportation) is 3.2 or 31.7 times more than the transportation energy of the same amount of existing barn wood transported from Des Moines, Iowa to Champaign, Illinois via heavy trucking or class 1 railway, respectively.

Energy for Transportation of Barn Wood

Transportation Mode	Fuel Consumption*	Amount of Wood	Distance (IA-IL)	Energy Used	**Total Energy Saved****
Heavy Trucking	2.4 MJ/km*T	2.8 T	500 km	3380 MJ	**7520 MJ**
Class 1 Rail	0.24 MJ/km*T	2.8 T	500 km	343 MJ	**10560 MJ**

*The transportation energy is based on the numbers of the US Transportation Energy Book for heavy trucking and the material calculation is based on New York City's Department of Sanitation's materials exchange reduction program.
**Figure is derived from subtracting energy used by total amount of embodied energy preserved (10,900 MJ).

B. Energy Efficiency – Embodied Energy and Lighting

It is more sustainable to renovate the building and adopt it to new use then to demolish it and lose the embodied energy found within. Due to the lack of insulation, inefficient heating and lighting systems, as well as poor maintenance and usage, the renovation will not only maintain the viable energy, but it will also strengthen the building's energy efficiency. The renovation of the building will adapt it to a current use and will therefore be better maintained. The reuse of existing buildings save energy; studies show that the initial embodied energy of a building is up to 40% of the total energy use of the building over forty years.[2]

The following calculations exemplify the energy saved through avoiding the demolition of the Annex 2 building[3]:

Initially Embodied Energy =	800 MJ/SF[2]	
Building Floor Area (2 Stories) =	9000 SF	
Initially Embodied Energy =	800 MJ/SF x 9000 SF =	7,200,000 MJ
Embodies Energy Refurbishments =	40%[4] of 7,200,000 MJ =	2,880,000 MJ
Energy for demolition/disposal =	5%[5] of 7,200,000 MJ =	360,000 MJ
Total saved if not demolished =		**10,440,000 MJ***

*This equals the operation of a traditional 100 W light bulb for 3,400 years (one would need 30,000 light bulbs if one assumes a lifespan of 1000 h). The energy cost for the operation of these light bulbs would equal approx. $ 2,100,000 assuming an average cost of $0.074 per kwh (3400 years = approx. 30,000,000 h). This information illustrates that there should be high value in adopting existing buildings to new uses whenever achievable.

[2] P Crowther, DESIGN FOR DISASSEMBLY TO RECOVER EMBODIED ENERGY, The 16th International Conference on Passive and Low Energy Architecture, Melbourne-Brisbane-Cairbs, Australia, September 1999
[3] The calculation are based on P Crowther, DESIGN FOR DISASSEMBLY TO RECOVER EMBODIED ENERGY, The 16th International Conference on Passsive and Low Energy Architecture, Melbourne-Brisbane-Cairbs, Australia, September 1999
[4] Based on the amount and scale of the refurbishment additional embodied energy for refurbishments can according to P Crowther vary between 20% and 100% of the initial embodied energy. We assume for the Annex 2 a long life span (approx. 80 years) but only minor refurbishments when the Art and Design Department installed their print shops. We therefore assume it to be 40%.
[5] P Crowther (Suzuki 1998)

The following table exemplifies the energy savings of using LED lighting in comparison to incandescent:

Calculated Energy Savings per 60,000 hours (approx. 7 years) and 30 bulbs needed			
	LED	**FLUORESCENT (CFL)**	**INCANDESCENT**
Life Span (How long will the light bulb last?)	60,000 hours	10,000 hours	1,200 hours
Watts Per Bulb (Wattage Equiv. at 60w)	6	14	60
Cost Per Bulb	$15.98	$2.98	$1.25
KWh of electricity used over 60k hours	360	840	3,600
Electricity Cost (@$0.20 per KWh)	$72.00	$168.00	$720.00
Bulbs needed for 60k of usage	1	6	50
Equivalent 60k hour Bulb expense	$15.98	$17.88	$62.50
Total cost for 60k hours	$87.98	$185.88	$782.50
Calculated Energy Savings per 60,000 hours (approx. 7 years) and 30 bulbs needed			
Total cost for 30 bulbs	**$2,639.40**	**$5,576.40**	**$23,475.00**
Savings by Switching to **LED**	**$20,835.60**	$17,898.60	$0.00

Information from: http://www.ledstarlight.com/led-comparison-chart.php

C. Significant energy inputs required to complete and maintain the project:

- Reclamation of existing barn - To preserve as much of the buildings as possible for reuse, alternatives such as dismantling or disassembly need to be considered. In order to utilize as much of the barn structures and siding as possible, we will need to hire contractors to properly disassemble the buildings.

- Exterior Shading Devices - Shading devices can dramatically reduce building peak heat gain and cooling requirements as well as improve natural lighting quality of building interiors. We anticipate reductions in annual energy consumption of 5% to 15%.

- Light Emitting Diode (LED) - Providing higher quality lighting products, that will last the lifetime of the building, eliminates the need for wasteful replacement. The lighting should be designed to provide the most efficiency by using the least amount of power. Light Emitting Diodes (LED) are small light bulbs that are extremely energy-efficient.

- 30 R-Value Roofing Insulation – The colder the climate, the greater the need for a higher R-value to ensure that less heat is lost from the building envelope. This is even more relevant with older structures.

- Energy Efficient Low-E Windows – The existing windows in the building are the original, single pane glass with little R-value. They are difficult to operate and do not close properly. Installing ENERGY STAR®, low-e, windows would significantly reduce heat loss and better serve a building situated in a northern climate such as Champaign (windows with a higher R-value have lower heat loss).

D. Environmental, Social and Economic Impact

Overall, it is important to maintain the building before it reaches a state of disrepair and needs to be demolished due to drastic maintenance requirements. Potential demolition of the building, if not maintained properly in the next few years, would be a disservice to the community at large.

Properly maintaining the building would not only save embodied energy, but it would also curtail future pollution; demolition causes an unnecessary amount of green house gases to escape into the environment. The structure of the building is in sound condition and it would be both a great loss and irresponsible to give up such a venue. When implemented our project will not only save a historically important building, but it will also sustain integrity within the

campus as an ecologically responsible entity. Finally, this endeavor will spur an ongoing interdisciplinary discourse between dance and architecture. The further use of the building allows a long-term considerable amount of money to be spared by both the dance and the architecture department because of the commonly shared space. It also spares the cost of the demolition and disposal of the building for the University of Illinois U-C.

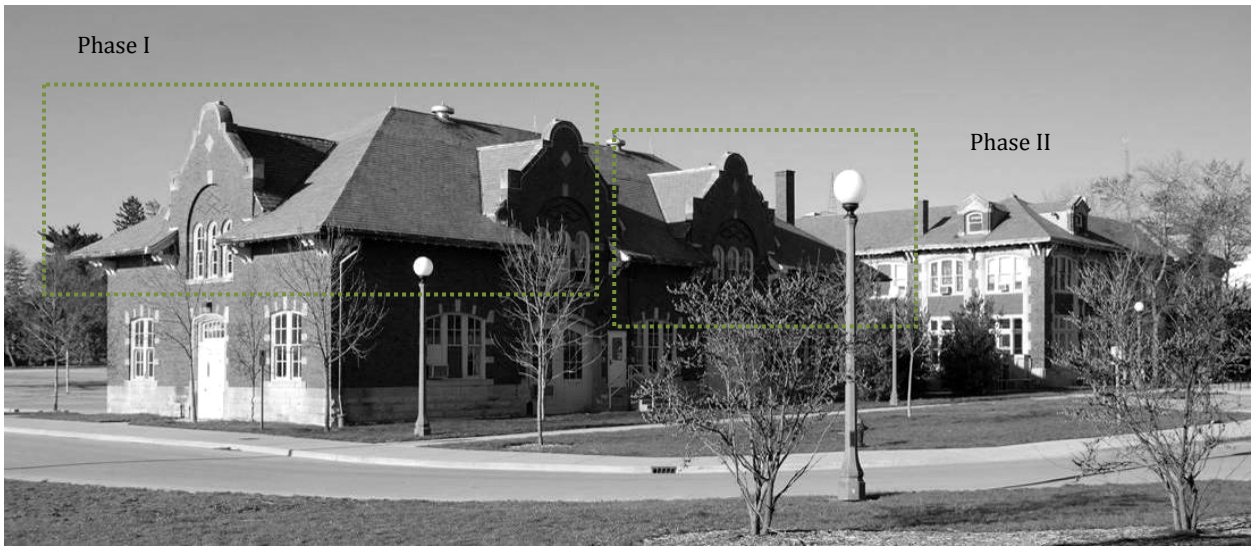
V. Outreach and Education

This design/build project between the School of Architecture and the Department of Dance provides an opportunity to engage students in discussions on environmentally responsible building and interdisciplinary approaches to design. The East Art Annex 2 is a highly visible building located on the South Quad that has the potential to play a crucial role in the development of emerging artists and creators in dance and architecture.

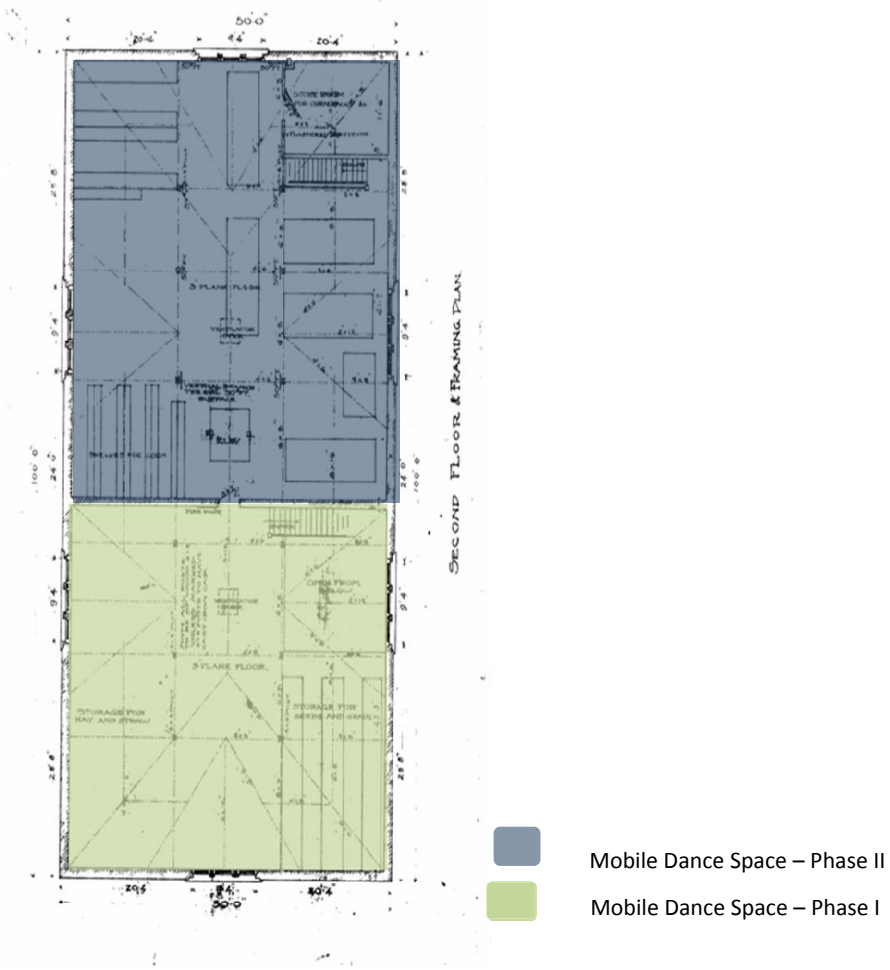
When the sustainable renovations are complete the second floor will provide a space for dance and architecture students to work on their creative process while also providing a venue to produce presentations of their work that will be open to the campus community as well as the public. Students enrolled in the architecture seminar classes with Julie Larsen and Roger Hubeli in the Spring 09 and Fall 09 semesters will play an integral role in the design of the rehearsal space. This will be a unique opportunity for students to not only learn about sustainable practice in theory, but also be an integral part of its hands on implementation. This will allow the students to gain a better understanding of the relationship between planning and practical implementation.

A press release indicating our goal of sustainability has been sent to the News Bureau of the University of Illinois and the The News Gazette. Both publications will be running an article some time in the next few weeks when construction on Phase 1 begins. Dance Teacher Magazine, a national publication, is also publishing an article due out summer 2009. In addition, we will be contacting dance and architecture journals that have national and international circulations including Dance Magazine, Contact Quarterly, and Architecture journals such as Dwell, Architectural Record and The Journal of Architectural Education (JAE).

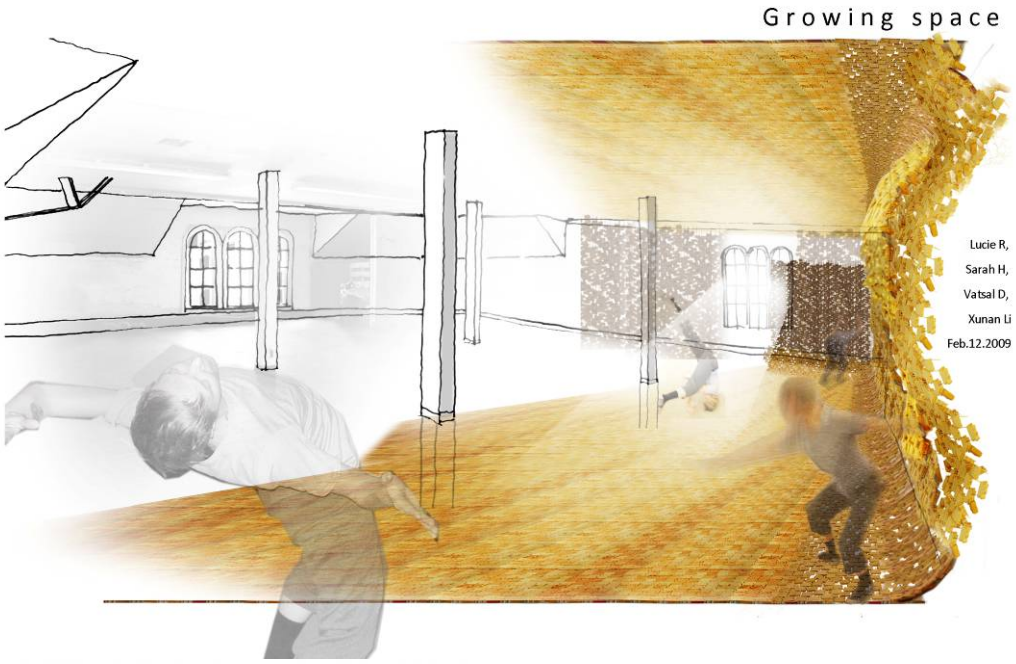
1. Supplement - *East Art Annex 2*



2. Supplement - *Plan of Second Floor - East Art Annex 2*



3. Supplement – *Student Renderings of Phase I*



4. Supplement – *Barns in Des Moines, Iowa to be dismantled, relocated, and reused for Phase II*

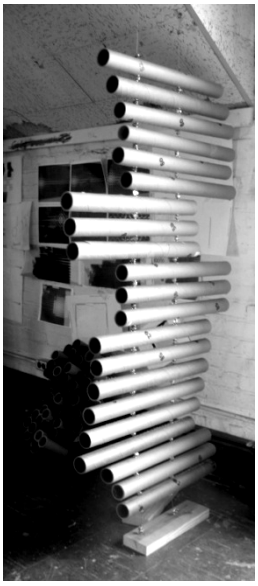
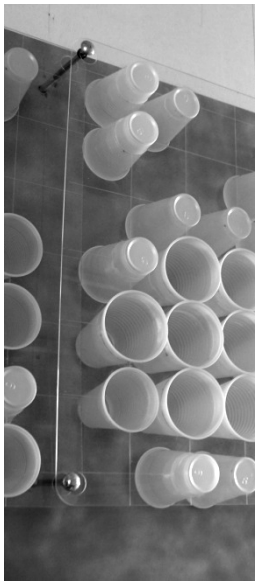
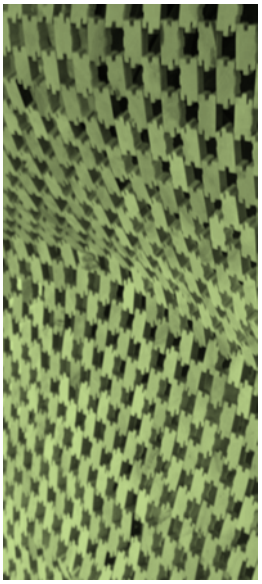
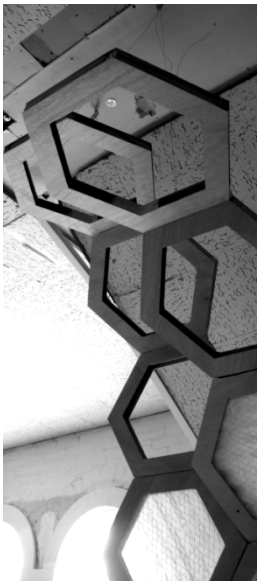
5. Supplement – Phase I (with floor mock-up and student proposals)

6. Supplement – Phase II (not cleaned out, partitions would be dissembled and reused)

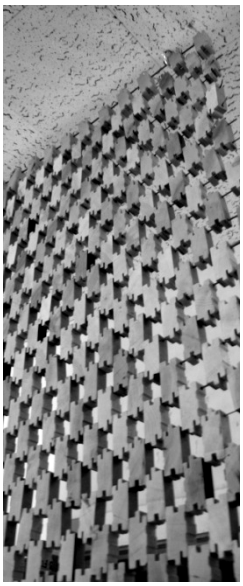
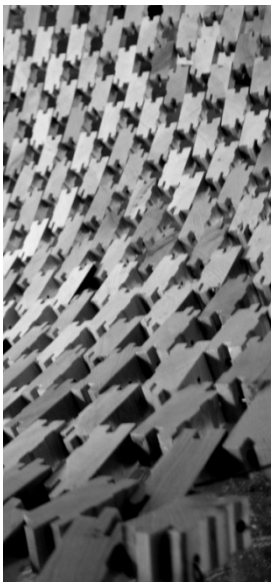
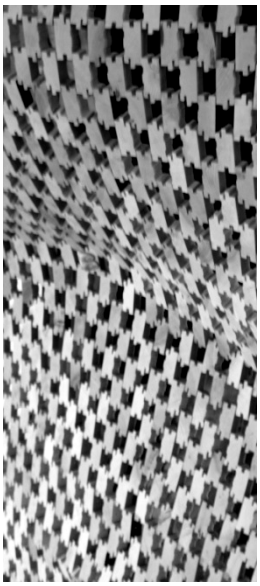
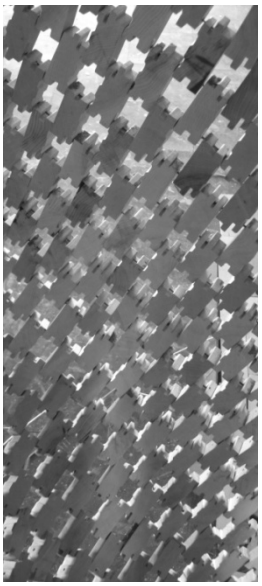
Phase I - 2,500 SQFT OF Recycled Basketball Court wood from the ARC at University of Illinois is currently bundled and stored at the East Art Annex 2 – we anticipate using 100% of the wood for the floor and walls



Phase I - Dance Space Seminar – Roger Hubeli and Julie Larsen
5 Student Groups, 5 Mock-ups of Wall Partitions (chosen project highlighted in green)

Phase I - Dance Space Seminar – Roger Hubeli and Julie Larsen
Student Mock-up of Wall Partition (Chosen Design for Phase I walls)

Phase I - Dance Space Seminar – Roger Hubeli and Julie Larsen
Mobile Rehearsal Dance Floor **Mock-up 1 -** consists of layers of subflooring, polyethylene foam pads, and recycled basketball court wood from ARC

Phase I - Dance Space Seminar – Roger Hubeli and Julie Larsen
Mobile Rehearsal Dance Floor **Mock-up 2 -** this is only the finish floor module which is based on a 3'x3' size that is easy to carry and can be disassembled and reassembled which allows for flexibility and reuse of the material again

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

College of Fine and Applied Arts
Office of the Dean
100 Architecture Building
608 East Lorado Taft Drive
Champaign, IL 61820

13 March 2009

Suhail Barot, Chair
Student Sustainability Committee

Dear Mr. Barot:

I write to express my support for the project to renovate a portion of the East Art Annex 2 into a dance studio. The School of Architecture and the Department of Dance have found a creative way to educate students on our campus about sustainability while giving them hands on experience and creating a forum for interdisciplinary discourse.

The efficient use of recycled materials as well as the unique cooperation between faculty and students in both Architecture and Dance shows that the Campus can do things in a truly imaginative manner that furthers both our goals in education and in making the campus a more sustainable environment.

Very truly yours,

Robert Graves
Dean

telephone 217-333-1661 • fax 217-244-8281

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

School of Architecture

Office of the Director
117 Temple Hoyne Buell Hall, MC 621
611 Tait Drive
Champaign, IL 61820-6921 USA

March 20, 2009

Suhail Barot, Chair
Student Sustainability Committee

Dear Committee Chair,

I am writing to express my full support for The Department of Dance's and The School of Architecture's sustainable renovation of the East Art Annex 2. This project provides students in both disciplines with opportunities to understand the dynamics of dance spatial and material configurations, and how architecture and dance students can collaboratively design those environments. At the same time, our architectural students are acquiring unique design and practical experiences in a "real" field environment.

Sincerely,

David M. Chasco, AIA
Director and Professor
School of Architecture

Telephone 217-333-1681 • fax 217-244-[illegible] • email arch-director@uiuc.edu

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Department of Dance
[illegible] West Nevada Street
Urbana, IL 61801-[illegible]

March 19, 2009

Suhail Barot, Chair
Student Sustainability Committee

Dear Mr. Barot,

I am writing to express my support of the design/build project with the School of Architecture. This is an exciting opportunity for Dance at Illinois students to cross disciplines and learn how to create spaces conducive to movement. Playing an integral part in the design and actual renovation, our current students will feel a deeper sense of connection to the space. In addition, this much needed graduate rehearsal space will attract exceptional students to our program and increase the depth of their explorations so that they may give back to the campus and community.

Renovating the East Art Annex 2 using principles of sustainability will teach students in both programs of study about intentional use of resources so that they can continue their work as creative thinkers in the future. This sustainable renovation will also bring the College of Fine and Applied Arts and the University of Illinois into national discussion on how to promote a more environmentally responsible campus.

Sincerely,

Jan Erkert
Department of Dance, Head

telephone 217-333-1010 • fax 217-333-3000
[illegible] • url http://www.music.uiuc.edu/dance/Faculty.htm

B. Social Impact

The original use of the East Art Annex 2 was as the Agronomy Store House for the University. Over the years the building has changed hands and been readapted for many functions – in recent years as the print shop and painting studios for the Art Department, currently for seminars for the School of Architecture and soon to be rehearsal space for the Dance Department. Unofficially, the East Art Annex 2 was on the University Administration's (UA) list of potential buildings to be demolished on campus due to negligence of not maintaining it and in turn becoming obsolete with the building's life span reaching its due course. The solutions set forth in the proposal are a way to overcome these obstacles and bring the building back to current, viable functioning spaces.

With the painting studios no longer in use, there is a desperate need to rethink the buildings function again and bring it back to a flexible, utilized space on campus. The base foundation and brick construction of the building is sound – the operation and use of the space is not. The building has the potential to fulfill new uses but it needs to be maintained properly, otherwise damage will be beyond the possibility of repair.

Unfortunately, the traditional attitude is to demolish a building and replace it with a clean slate – a new building without the headaches of extensive maintenance. As stated previously, our research has found that it is more sustainable *to renovate* the building and adopt it to new usage because the embodied energy of the building would be lost if it were demolished. The lost embodied energy outweighs the new energy savings for new construction. It would be irresponsible to tear down the building if it could be avoided by taking immediate action now to bring it up to its full potential and alleviate demolition as a possibility.

While sustainability is an ideal that most people readily support, it is much more difficult to commit to sustainable practices as an ongoing lifestyle. From individuals to institutions, it takes rigor, attention, and time to shift the paradigm because it requires a change in habits and more importantly, in thinking. This shift requires every individual to think of the choices they make in the present and how those consequences affect the future. The East Art Annex 2 should be a model and signifier of the future of our school's mindset. We must change the way people view existing buildings on campus – as viable buildings with history and character that are vital to the culture of the school.

These old, underused buildings should be pulsating with new, dynamic design solutions that provide for flexible, ongoing use that can last an additional 100+ years. Facilitating current use is not just bringing the building back to its original intent through preservation but adapting and redesigning it to fit contemporary new uses. The most rewarding, sustainable act we can do is to maintain what we have and make it better.

As we move forward in creative ways this project will generate both local and national attention because of its unique story of collaboration. Each phase of the project raises different topics for the students and faculty to discuss and with each step the students play an integral part in the final product. The project will also teach a new generation of students about varying aspects of sustainable design and creation. Students in this class are learning about fundraising, institutional policies, putting architectural design into practice, how to search for recycled materials, and the list goes on. As each of these students goes into the world, this project will have a lasting impact on generations to come.

C. Project Impact on the Department of Dance

The mission of Dance at Illinois is to promote and expand the role of dance in contemporary culture through integrated approaches to choreographic, performance and scholarly research, educational programs, performances, and public engagement. The mission of the MFA Program is to foster substantive choreographic research that posits dance as a force in contemporary culture.

In the last three years there has been significant investment in our program by Provost Linda Katehi and Robert Graves, Dean of FAA. Since Jan Erkert was hired as Head of the Department of Dance in 2006 there have been two Excellence Hires, Tere O'Connor and Jennifer Monson, both celebrated nationally and internationally renowned artists. Because of these hires and the growing national reputation, Dance is now attracting a pool of extraordinarily talented graduate level

choreographers. However, the department is losing that talent because there isn't a dedicated rehearsal space or offices for graduate students.

A choreographer's most important tools for the creation of work are space and people. Rehearsal space is vital to the creative process. One dance can take up to 45 hours in the studio. Our current 20,000 square feet of space services our classes, but does not provide regular rehearsal space for graduate students. In addition, even though all of our graduate students teach, they don't have any offices.

We have tried to solve our rehearsal space issues by renting space that is in close proximity to the department and is available 24 hours per day, 7 days per week. There are two locations within walking distance of the Department of Dance that have adequate spaces for dance rehearsals, Channing Murray and CRCE. However, neither of these locations will rent their spaces 24 hours per day, 7 days per week.

The following information is included only as a comparison to show the yearly cost to the Department if these spaces were available on an unlimited basis.

Location	Hourly Rate	Daily Rate	Yearly Rate
Channing Murray	$25	$600	**$219,000**
CRCE	$7 (+ $20/hr after midnight)	$298	**$108,700**

The two new studios in the Art Annex 2 (Phase I and II) will significantly enhance our program. The announcement of this graduate rehearsal space will become an important recruitment tool. The new level of graduate student who is now attracted to our program because of the new faculty, will commit to our program when they see there is also a quality rehearsal space. The quality of graduate research will undoubtedly be significantly enhanced as well. By having unlimited access to a space, graduate students will be able to arrange better access to dancers due to more flexibility in scheduling. The creation of this Graduate Rehearsal Space will allow us to truly meet our mission to foster substantive choreographic research that posits dance as a force in contemporary culture.

1. Scope of Phase III

The overall renovation of the building targets a comprehensive strategy that allows the building to be flexibly used and assures that the structure be up to code and energy efficient (LEED certified). The renovation will take into account that if the building in the future would be renovated again or disassembled that the materials used would be reused for other purposes.

Anticipated renovation for Phase III:

Necessary Renovation
- **Fix waterproofing layer of roof** - to avoid structural damages through long-term small leakage
- **Repaint all wall surfaces with Low VOC paint** - replace old lead based paints with healthier paint
- **Replace flooring throughout entire building** - replace old damaged floor with new healthier material
- **Clean out entire building**

Heating and Cooling
- **Insulate roof and walls (interior)** - to reduce heat loss
- **Dismantle present unused print shop equipment and exhaust system**
- **Replace heating and cooling system** (low velocity ventilation - to better control and adopt heating and cooling loads
- **Exchange all windows and install outside electronically operable shutters** - for better weather enclosure and control of heat gain and heat loss

Function / Flexibility
- **Redistribute loads from columns to walls on second floor** - to free up space for dance studios
- **Free up floor plan by removing all non load bearing walls** - to allow for more flexible use of space
- **First floor Interior adopted to ADA standards** (access through east side) - to bring building up to code

Energy Saving

- **Install motion controlled lighting throughout** - to save electricity when rooms are not occupied
- **Update plumbing fixtures** (more efficient faucets and toilets) - to reduce water consumption

Student Sustainability Committee

Graduate Dance Rehearsal Space – Proposal Addendum #2

A. Revised Budget

Priority 1				
Category	Material Item	Amount	Cost	Justification
Dismantling Pre-Existing Barn	2 weeks of labor for 2.5 barns		$6,000.00	recycled for use in dance space
Transportation Costs to Iowa	1 vehicle		$100.00	
Transportation Costs to Champaign	(3) 26' trucks @ $350 ea. (1 way rental)		$1,050.00	
Finished Dance Space				
Temporary Mobile Sprung Floor		2200 SF	$2,400.00	Necessary for dance rehearsal
				custom made from barn wood
Physical Therapy Space		200 SF	$800.00	cabinetry, table
Editing Suite + Archival Library		300 SF	$1,000.00	cabinetry, shelving, (2) workstations
Body / Think Space		300 SF	$800.00	cabinets
Low VOC Paint			$700.00	
Experimental Mock-ups			$500.00	Full scale studies
Exterior Shading Devices	provided for 18 windows	6	$3,000.00	custom made from barn wood
SUB-TOTAL			**$16,350.00**	
Priority 2				
Category	Material Item	Amount	Cost	Justification
Energy Efficient Lighting				
Light Emitting Diode (LED) Lighting	Energy Star	30	$2,640.00	
Motion Sensor Switches	Energy Star	6	$300.00	
Roof Insulation				
30 R-Value Fiberglass Insulation	4000 SF in Roof	4000 SF	$3,000.00	
New Acoustic Ceiling Tiles			$4,000.00	for better sound quality in dance space
SUB-TOTAL			**$9,940.00**	
Priority 3				
Category	Material Item	Amount	Cost	Justification
Energy Efficient Low-E Windows				
Renovation Windows			$9,000.00	window prototypes / mock-ups
SUB-TOTAL			**$9,000.00**	
Labor Costs				
Category	Hourly rate	Amount	Cost	Justification
Professional Wages	Priority 2		$3,600.00	if work can not be executed by students
Graduate Hourly Wages	Priority 1, 2 + 3	$15.00 / hr	$20,000.00	majority of work done by students
SUB-TOTAL			**$23,600.00**	

Donated Material				
Reclaimed Barn Wood	Recycled from 2.5 existing barns	-	$25,000.00	Approximate Value
TOTAL FUNDING REQUEST			**$58,890.00**	

As a result of shifting the majority of the labor to student efforts, we would like to involve students through independent study work as well as 'graduate paid hourly' assistant positions for the duration of the project. The revised budget reflects shifting all labor costs to one pool for either graduate paid hourly or professional wages where necessary if students cannot fulfill the tasks. Some work in Priority 2 would need to be done by professionals.

Due to the economy, many students are losing teaching assistant positions at the University. Through the involvement of 'hourly paid' graduate assistants, we would be offering substantial income back to students that is desperately needed. The 'labor costs' stated in the original budget will be dedicated to graduate students and allow us more flexibility to coordinate and maintain student involvement throughout the process. Through consistent involvement of 'hourly paid' graduate assistants, we can guarantee higher quality output of the work.

If the work is beyond the capabilities of the students and requires execution from professionals, we will apply for a waiver from the committee to complete the work. In these cases, students will still play an integral role in the planning and development of the tasks to be fulfilled. This is a crucial educational experience through which students can learn how to research necessary materials, building construction, and final output to convey design ideas effectively and clearly to professionals. There would be ongoing dialogue and open communication with the students and the professionals in each step of the process.

Due to the complexity of the planning for the windows with CCRC, the budget has been revised to encompass more research costs in developing proper drawings and mock-ups for sustainable window solutions in the planning phases. Graduate paid hourly research assistants will contribute to developing these efforts alongside faculty and outside resources to help facilitate research on technology and historic preservation.

B. Revised Timeline

We have proven that we are committed to continuing this project. Phase I is near completion, Phase II will start in late August, and we are continuing our search for the funding needed for Phase III. After evaluating our process and past experience in Spring 2009, we feel that to ensure quality work and active student engagement we would like to extend Phase II into the spring of 2010. Due to the volume of work needed to complete the project and since most work is shifting from professional to student work, it is necessary to extend the time needed to complete the tasks required. Extending the timeline will also allow time for University processes to occur in the event that the Historic Society and/or Facilities and Services becomes involved.

- Start of Phase II	August 24 (Beginning of Fall Semester 2009)
- Cleaning out the facility	August 2009
- Disassembly of Barns – travel to Iowa	September 2009
- Development of furniture designs	September - October 2009
- Production of dance floor (off site)	September – October 2009
- Present Phase III proposal to CCRC	October 2009
- Installing dance floor	November 2009
- Completion of dance floor	December 2009
- Submit proposal to IL Clean Energy Community Foundation	December
- Completion of furniture	January 2010
- Renovation of lighting system	January 2010
- Development of window designs	January – February 2010
- Installing windows / insulation	March – April 2010
- Completion of major work for Phase II	May 5, 2010
- Opening event	August 2010

C. Student Involvement

Students will play an integral role in the design planning as well as production of the dance space for Phase II. The student effort will be led by the Architecture Professors, Roger Hubeli and Julie Larsen, and organized by two paid graduate assistants with expertise in design/build practices. The graduate assistants will coordinate a select group of independent study students chosen by the faculty to participate in the design and production of the space. We anticipate needing approximately 5-8 undergraduate and/or graduate students who can participate in either one or both semesters. The students will learn extensively about implementation of a sustainable practice as well as how a 'design/build' project is organized and implemented. The students will be participating in the design process, budgeting, material analysis, scheduling, working with consultants and fabricators, construction documents, and installation of various components for the dance space.

D. Sustainable Materials

It is the goal of the project to not only select high quality sustainable materials, but also to find alternative, innovative solutions to be more sustainable through reuse and modification of existing materials, such as the barn wood and/or additional found materials. We will research alternative methods for better, sustainable ceiling panels and replace existing panels throughout the second floor. The potential of using new materials can be a result of consulting local fabricators in the Midwest region that are interested in research collaboration with the students. In the case of the windows, the material research will be broad enough to not only encompass the specifics of the East Art Annex 2 but for similar buildings on campus as well. This could potentially have a large impact of planning efforts for the University at large.

E. Outreach Component from the Department of Dance

The Department of Dance will host an official opening in August 2010. This event will give members of the campus community and public the opportunity to tour the Graduate Dance Center – complete with two studios and office spaces. We will invite the President of the University, the Chancellor, the interim Provost, the Student Sustainability Committee, students and faculty members of the School of Architecture, and our private donors. Our graduate students will produce an informal showing of their choreographic work at the event. In addition to this event, there will be on-going showings in the studios starting Fall 2009 with the completion of Phase I.

F. Expenditure Reports

The School of Architecture will provide expenditure reports to the Student Sustainability Committee. The account will be handled through the accounting office of the School of Architecture. For further information, please contact Cheryl Heck.

G. Fundraising Efforts

We plan to meet with the Chancellor's Capital Review Committee (CCRC) in October 2009 where we will submit a proposal for Phase III. We will be seeking the approval for the sustainable renovation of the entire building in order to bring it up to LEED Certification standards. After receiving necessary University approvals we will submit a proposal to Illinois Clean Energy Community Foundation and other private foundations with the help of members of the University Advancement Office. In an effort to increase our private donations we will be putting together a formal appeal with the College of Fine and Applied Arts Development Officer that will be sent out to all our alumni and friends of dance Fall 2009.