Southern Illinois University Carbondale OpenSIUC

Honors Theses

University Honors Program

5-2000

Evaluation and Design of the Southern Illinois University Honors Center

Rebecca Leigh McReynolds Southern Illinois University Carbondale

Follow this and additional works at: http://opensiuc.lib.siu.edu/uhp_theses

Recommended Citation

McReynolds, Rebecca Leigh, "Evaluation and Design of the Southern Illinois University Honors Center" (2000). *Honors Theses*. Paper 149.

This Dissertation/Thesis is brought to you for free and open access by the University Honors Program at OpenSIUC. It has been accepted for inclusion in Honors Theses by an authorized administrator of OpenSIUC. For more information, please contact opensiuc@lib.siu.edu.

EVALUATION AND DESIGN OF THE SOUTHERN ILLINOIS UNIVERSITY HONORS CENTER

.

.

Rebecca McReynolds UHON 499-706 Instructor Bob Swenson

,

•



TABLE OF CONTENTS

١.	Introduction	3
2.	Analysis of Honors Students	4
3.	Analysis of Precedent Design	6
4.	Facilities Program – Area Summary	8
5.	Preliminary Design Development	20
6.	Conclusion	27
7.	Bibliography	28
8.	References	29

INTRODUCTION

The first honors center design was developed in 1989 by the combined efforts of Swenson Kaha Architects and Dr. William Head of the University Honors Department. This design was developed as a living – learning milieu for all honors students. The design housed 1 G students, house parents, and two guest room for visiting speakers. The center also housed a library, seminar rooms, various types of meeting rooms, and additional workspace environments to be utilized by all honors students. Due to restrictive funding the design did not continue to the next phases. Looking back eleven years later exemplifies the overall concepts of the design to still stand true but it has become out dated. This evaluation incorporates the thoughts and concerns of the current honors students. It also incorporates new design concepts for the 21st century. The information presented within will provide an accurate assessment of needs, behaviors, and understanding of the honor's student life for a program that espouses these concepts.

ANALYSIS OF HONORS STUDENTS

There are two kinds of honors students and the relationship of one to the other could be compared to the "tortoise and the hare". The first is like the "tortoise" that learned at a slower pace than the "hare" but he never stopped to take a long hiatus. This student may not and usually is not the smartest student but he knows the rules of educational engagement and excels. (Wisely, 3) During his earlier childhood he probably admired the "hare's" perceived greatness and worked diligently to emulate him. This type of student would benefit greater from the centers' specialties then the contact with other honors students This is because this student has already built himself a strong support staff out of friends and family. (Wisely, 2) The second type of honors student is like the "hare". He has the ability to race ahead of everyone else but he does not stay focused and loses his way. Through out lower years of education this student did not need help effusion this great mass of knowledge he accumulated so early in life. Very few things presented themselves as a challenge so the "hare" adapted to education in a different manner. He was among the top in his class and quite often spent a great deal of time with these people. When he enters college the unestablished study skill habits lacked because of the previous unchallenging courses send this exceptionally bright student foundering; and quite often the "hare" does not find salvation in time to resurface. For the "hare" college offers him the first educational challenge and he did not know how to deal with it. The "hare" type of honors student will benefit more from the social milieu

of the honors center. The reinforcement and interaction with other honors students whom have developed an inveterate study routine will be an excellent paradigm for the "hare" student. This contact will help extricate the educational process the "hare" students must learn to strive. (Wisely,5) The overall idea of a living – learning environment would greatly affect both of these types of students in a positive aspect. It would help keep the hare in the race and it would make the race easier for the tortoise.

Many of the honors classes at this university strive to not only educate the student on the current topic but also bring the topic to a better level of understanding by directly relating it to the students life. The living ---learning environment of the Honors Center is the next step down the path of the programs charted course.

ANALYSIS OF PRECEDENT DESIGN

The current honors center design shown on page 29 had a great incipient towards an appropriate design to promote growth in the two types of honors student. It also has made leaps and bounds to increase the overall level of the honors program. The main fault with an older design such as this is the under estimated growth of technology. Eleven years ago technology was not used nearly as much as it is today and in the years to come it will play a major role in everyone's life. The precedent design also lacks important parts for the proper function of a dormitory milieu. The changes made to the new program that differ from the original design are as follows:

- Additional areas needed for a complete design
 - Garbage & Recycling
 - Housekeeping/Janitorial Closet
 - > Laundry
 - Mail Room
- Changed Spaces
 - Enlarged computer room per request of current honors students with addition of Satellite Transmission Center
 - Updated all rooms to current technological standards

A discussion was also conducted with a random sampling of 26 honors students', notes for discussion is on page 30. There were two reasons for the discussion with the current honors students. The first was to incorporate their ideas into the final program and to investigate the probable usage of the center. How would the center be used by the students and what could be done to make it more useful. The discussion quickly revealed that the use of the center in its current design would be miniscule. To improve the usage it was suggested that a larger computer area opened exclusively to honors students be added. This would draw more students to use the facility. Also added was the need for a high tech state of the art facility for honors student presentations, and a Satellite Transmission Center to converse with students around the world. The materials that should be housed in the library should include honors classes reference material, previous theses, and top books for reading pleasure. By having the honors class reference material within the center it will help bring honors students into the center and become more familiar with the facility. Southern Illinois University Honors Department UHON 499-706 Spring 2000

NEW HONORS CENTER FACILITIES PROGRAM-AREA SUMMARY

The following functional criteria have been assessed for the functional outline: Operational Description Hours of service, type of access (when and how) Function/Occupancy Description Services or functions provided (what) Occupancy and staffing numbers Design Criteria Room requirements: numbers and areas required, furnishings, net areas, gross areas External and internal relationships: control, direct and indirect access to which areas
SUPPORT AREAS

1.1 Entry Vestibule min. 72 sq. ft. Open 24 hours Operation: Function: weather protection, control after hours access, provide "main" entrance and "waiting" area Design Criteria: Handicap accessibility (space between doors sufficient for wheelchair) to fit when one door is open and one closed. Power operated door Window panel at side of doors for viewing driveway Intercom/ phone for access to student and quest rooms after hours Fire alarm annunciator panel connected to Residence Office and Campus Security Bench on one side only (side with annunciate panel) Recessed floor vent > Directory, by apartment on wall opposite bench 1.2 Entry Area min. 72 sq. ft Operation: Open 24 hours Entry doors open 6 a.m. to 2 a.m. May to August 8 a.m. to 11 p.m. September to April

Function:

- Flow of traffic to Library, Computer Center, elevators, and seminar rooms
- Design Criteria:

- Ceramic tile floor no skid
- > Conference board to list upcoming honors events
- > Directional signs to meeting rooms, guest rooms, washrooms
- Display board for city map and notices (glass doors, easy access, lock)
- Public telephone, taxi phone, house phone
- Controlled access to remainder of the building
- CATV cameras
- Plus CATV cameras for each floor and elevator (provide conduit for future)

Function: mail sorted by staff, delivered from main Residence Office Per Unit

Design Criteria:

- Mail boxes face dorm rooms
- Counter for sorting mail
- Access from hallway
- I mail box per dorm room
- Box for outgoing mail and newspaper delivery
- - Operation 24 hours
 - Function: visitors

Design Criteria:

- Visible access from entry and speciality rooms
- I stall, I sink per gender
- > Water fountain in close proximity in hallway
- Handicap accessible

Operation: 24 hours

Function: 2 machines - 1 beverage, 1 snack

Design Criteria:

- Access from entry area and seminar rooms
- Pay telephone \$house phone

Operation: 24 hours

Function: Supply Kitchen

Design Criteria:

Cupboards for dry food and shelves in pantry

> Possible Freezer

2. SERVICE AREAS

- - Extra large refrigerator, stove, microwave, double sink, overhead exhaust, dishwasher, food disposal, and track lighting
- 2.2 Laundry...... 100 sq. ft. Operation: 24 hours

Function: residents and guests only

Design Criteria:

- > Direct external ventilation of dryers and of room
- Water and electrical hookup for 2 heavy-duty washing machines and 2 dryers, all coin/ card operated and near floor drain
- Stainless steel sink and small counter (24" max counter space)
- clothes hanging racks 4' long, 7' high and attached to walls
- > tables for folding
- > I ironing bench with electrical hookup
- Garbage near dryers
- Separate seating area with separate ventilation; 2 tables, 4 chair and 4 lounge style seating
- > Vending machine and change machine
- TV and cable hookup, pay telephone, house phone, CATV camera
- Buffer in floors for vibrations
- > Washers not to be installed against walls

2.3 Garbage & Recycling 100 sq. ft.

Operation: 24 hours

Function: garbage removal \$ recycling drop off Design Criteria:

- > Not directly below any residential room
- External ventilation
- Floor drain
- Secured water supply and high pressure hose for regular cleaning
- Design cannot require garbage to be lifted over 4 feet or tossed to receptacle

- - > Shelves for cleaning supplies
 - Secured linen supply cupboard (5 shelves 20" deep, 18" high, 36" long)
 - Storage for housekeeping carts 2--4' X 2'
 - > Wall hooks for brooms, mops
 - Storage for 1 vacuums and floor scrubber
 - > Vacuflo system for all areas maximum hose length 30 feet

Design Criteria:

2.4

Per consultant requirements - no fiberglass inside ventilation ducts or equipment-insulation on outside only

Telephone Equipment

Operation: Telecommunications and WilTel access only Design Criteria:

> per Telecommunications

Cable TV Equipment Operation: Cable company Design Criteria: > to be determined by company

Electrical Equipment Operation: Cable company Design Criteria: > to be determined by company

3. DORMITORY ENIVORIMENT

3.1	Residential Advisor		l. ft.
-----	---------------------	--	--------

Occupancy: 12 months

Design Criteria:

- Studio suite, entrance with closet, storage room, kitchen with oven, refrigerator, microwave
- Living/dining room with small table and 2 chairs, sofa (3 seater) and single seat, coffee table and side table, floor and table lamp
- > Bathroom with tub and shower (single unit)
- Single bed (space for double), dresser, work station and chair
- Complete electrical, cable and phone hookups in bedroom and living room
- Built in bookshelves as design allows

Occupancy: 12 months student OR 9 month student and 3 month conference

Design Criteria:

- Storage space
- > Vanity
- Dorm Rooms grouped in pairs with washroom containing toilet and shower shared by 2 occupancies.
- Standard single bed in each bedroom
- > 1 bathroom per pair, full height mirror built in medicine cabinet
- Closets of modular design for maximum use of space and minimal doors leave option for removable safe in each closet
- - > Allow for suite bedroom to be for ADA student
 - Design Criteria:
 - > As per above with following adaptations
 - Bathroom larger door, lever handle, full sloping floor, trench drain at shower, shower bench and rails, adjusted counter, mirror, and sink
 - Adjusted shelves and closets in bedroom, slanted mirror
 - Entrance door to have lowered security viewers (peepholes) as well as viewer at higher level ie., 2 per door

Design Criteria:

- Bed/sitting room with double sized bed, 2 bed side tables, dresser/credenza, 2 side chairs and work table, floor and bedside lamps, and sofa bed
- > Television with cable hookup, telephone and modem access

- > Open closet with small safe
- 3' counter with bar sink and 2 cu. Ft. refrigerator and microwave (no kitchen)
- Individual heat control
- Bathroom with shower/tub, toilet, vanity, hair dryer hookup and razor outlet
- Second counter adjacent to bathroom with mirror and surround lighting
- Stairway to upper floor of Guest Room

conference for social activities within dorm space

Design Criteria:

- Large space to have soft seating and good reading lights (no TV)
- Electrical hookups accessible for lap tops

4. SPECIALTY AREAS

Operation: 24 hours

Function: Small group meetings

Design Criteria:

- Exterior windows that open
- > Electrical hookups at regular intervals for lap top use
- Board table for 12 moveable
- White board mounted on one wall
- Sound proofing
- > Telephone, television, cable and video hookup
- > Credenza at one end with electrical outlets easily accessible
- Security viewer in doors (one each direction)
- Built in pull down screen
- Conduit and boxes for built in camera
- One house phone
- CATV CATV camera (conduit for future)

Operation: 24 hours

Function: Small group meetings

Design Criteria:

- Exterior windows that open
- > Electrical hookups at regular intervals for lap top use
- Board table for 12 moveable

	White board mounted on one wall
	Sound proofing Talashana talawasa palala and radaa haaluura
	Telephone, television, cable and video nookup Credenza at one end with electrical outlete easily accessible
	 Security viewer in doors (one each direction)
	 Built in pull down screen
	 Conduit and boxes for built in camera
	> one house phone
	CATV CATV camera (conduit for future)
12	Computer Lab 2000 c.a. ft
4.5	Computer Lab
	Operation: 24 hours or when graduate student is on auty
	Decian Criteria:
	 Separate from dorm area for security proposes
	> 20-30 stations
	I printer station with monitored printing
	Extra stations provided for laptop hook up w/ network.
	Download option only for these stations to prevent upload of
	viruses to system.
	Presentation Equipment for instruction, and to be used for
	presentations in Honors Classes
	Includes Satellite Transmission Station
44	Study 400 sa ft
1.1	Operation: 24 hours
	Function: To cater to all honors students. For informal aroup
	meetings.
	Design Criteria:
	Soft seating with end tables
	tables with 4 chairs
	Adequate adjustable task lighting
4.5	Photo Lab 190 sq. ft.
	Operation: 24 hours
	Function: To cater to all honors students.
	Design Criteria:
	Light lock for darkroom
	\blacktriangleright industrial sinks with adequate countertop space and drying racks
4.6	Studio
	Operation: 24 hours
	I A A A A A A A A A A A A A A A A A A A

ſ

,

	 Function: To cater to all honors students. Design Criteria: North exposure Moveable drafting tables with built in light box Easily cleanible surfaces (floors, walls, ceilings)
4.7	Studio 200 sq. ft. Operation: 24 hours Function: To cater to all honors students. Design Criteria: North exposure > North exposure > Moveable drafting tables with built in light box > Easily cleanible surfaces (floors, walls, ceilings)
4.8	 Recreational Area
4.9	Workshop220 sq. ft.Operation:24 hoursFunction:To cater to all honors students.Design Criteria:> Storage Cabinets and counter space> Utility sink
5.	GROUP ACTIVITIES
5.1	Parlor

> Television/cable connection

I

5.2	Dining 1
	Operation: 24 hours
	Function: Small seating area
	Design Criteria:
	Should be able to be opened up to create a larger space with Dining 2
5.3	Dining 2
	Operation: 24 hours
	Function: Small seating area
	Design Criteria:
	Should be able to be opened up to create a larger space with Dining 1
5.4	Dining 3
	Operation: 24 hours
	Function: Large seating dining room
	Design Criteria:
	Could be used for receptions after honors events
5.5	Library
	Operation: 24 hours
	Function: Hold honors class information and possibly thesis projects
	Design Criteria:
	Could be used for receptions after honors events
6.	TRANSITIONAL AREAS
6.1	Elevator and Elevator Lobby sq. ft. as required
	Design Criteria:
	Durable walls and floors in elevator
	Locking display board in elevators Handison accessibility of floor selector with Braille
	Financial accessibility of hoor selection with Drame Lobby with non-stud ceramic tile
	 Glass wall facing library
	 Bulletin board and directional signs listing room numbers in each
	lobby
6.2	Corridors
0.2	Design Criteria: recessed full spectrum fluorescent lighting
	> Flooring durable and easily cleaned, soft enough for sound
	Reduction
6.3	Stair
	Function: 3 provided for exiting in case of a fire
	Design Criteria:

- Min clearance of 4' between handrails for ADA rescue
- > Non- Skid Nosing
- Min 4" between baluster in handrail.
- > Handrail | 1/2" from wall
- Masonry or staggered stud construction for sound isolation
- First floor to have direct access to outside

7. DESIGN CONSIDERATIONS

7.1 Entrance Drop off & Emergency Vehicle Parking Operation: 24 hours Design Criterio:

Design Criteria:

- > Easy access for disabled, ramp from drive to door, barrier free
- Sign for building listing accommodations
- Overhang for weather protection -racks for 10 bicycles
- Exterior garden boxes/benches/ash tray
- Requires excellent night lighting for security and camera use
- Emergency exterior phone

7.2 Parking

Operation: 24 hours Design Criteria:

- > Use current parking if possible
- Good Lighting with call boxes

7.3 Service Area

Operation: 6:00 a.m. - 7:00 p.m.

Design Criteria:

- Minimal noise and odor to residents
- > Out of main traffic flow
- ➤ Good lighting
- Emergency exterior phone

7.4 Fire Safety System

- Designed to meet all current regulations including speaker system, horns, strobe lights, sprinkler system (depending on building height)
- Sprinkler system in all garbage, recycling, chemical storage and laundry areas
- > Ensure lights and speakers are in all stairwells
- > External stairwell completely glazed for security

7.5 Mechanical

- > Opening windows where ever possible
- External ventilation from all bathrooms, kitchens and laundry rooms
- > Individual heat and air controls in each bedroom
- > Building air conditioned
- > Vents at top of library space to remove heat
- > Skylights to have insulated Glass
- Heaters to take up minimum space-not extended around corners of full length of walls if possible
- Showers must be designed to eliminate water on floors (current problem of bathroom floor deterioration as a result of water from showers)
- Require excellent insulation to avoid burst pipes and varying temperatures throughout the building

7.6 Access

- > Apartment doors 36" minimum width
- All access doors and doors to common areas (laundry, meeting rooms, retail, office, common room) 40" wide
- Security viewers (peepholes) in all apartment doors
- Corridors 48" minimum
- Lever handles where possible
- Automatic door openers at all main access points (main entrance and common areas such as laundry or meeting rooms)
- Building is non-smoking

7.7 Signs

- > All rooms provided with numbers screwed onto plates by doors
- > All signs with corresponding Braille

7.8 Daylight

- Skylights above Library
- Walkways on second and third floor allow daylight to penetrate into adjoining spaces
- Window controls-no push/pull arms, no knobs
- Stairwells require windows

7.9 Materials

- > Cast in place concrete exterior walls
- Inner circle standing seam metal
- Aluminum windows to match standing seam
- Contrasting metal seam roof

Steel truss system at roof

8.0 Security

- Security viewers in all dorm/ guest/ R.A. doors
- Dorm area separated from rest of facility at night-lockable with access to residents

•

PRELIMINARY DESIGN DEVELOPMENT

A exemplify paradigm is provided for clear illustration of the new honors center program. To progress after the programming phase a designer uses a concept to help implement the design. The role of the concept is to keep the designer focused on the outcome and overall feel of the building. The concept for the new honors center is "Bound by Honor". "Bound by Honor" symbolizes the qualities that make up a honors student. The concept "Honor" incessant force that distinguishes them from the norm. This force can be different from student to student but acts upon them in the same way helping them get to the goal line. The concept "Bound" symbolizes the great strength one needs to partake on such a journey, which can not be done alone. Most students form a group that espouse them otherwise they may find themselves foundering. This support group usually consists of family, friends, and close relatives. The greatest impact on the students is the people they interact with daily. The concept "Honor" is manifested in the Specialties Areas and the Dormitory Environment. The Specialties Areas includes: computer lab, photo lab, studios, satellite transmission center, recreation area and workshop. The Dormitory Environment includes: dorm rooms, the resident advisor, and the guest quarters. The concept "Bound" is manifested in the Group Activities Area that focuses on social interaction. The Group Activities Area is comprised of: dining areas, seminar rooms, parlor, and library.



The Bubble Diagram below is used to relate spaces and needs together.



To begin the development of the form of the building precedent designs are used. Studies are done of the building formations also known as massing studies. The formative idea used for the new honors center is "Unit to Whole". "The unit to whole relationship ... relates units to other units and to the whole in specific ways to create built forms." (Clark, 207) The first massing study illustrated by Figure 1 relates each individual part to the whole by juxtaposing the compotes. This synthesized mass continued through the next two massing studies always resulting in an incongruous form. These studies transcended themselves in the final massing study Figure 4. This massing study manifested all pieces of the design.



The final step is to expand the massing study into an actual design. The floor plans are on the next three pages. This is one design solution to the programmed design data. The plan occupies a similar overall space as the precedent design with similar entry and parking situations.







CONCLUSION

The precedent design for this project was well developed and made a valuant effort at a possible design, but after the analysis of the design it is clear that some major compotes are missing for a complete design solution. The new program builds upon the previous design and updates it to have a functional end result. At this time Dr. Williams Head of the Honors Department is working diligently to raise enough funding for an Honors Center. When the funding is obtained a design competition will follow resulting in a new design. This program was written in hope that it might be considered for use by the design teams.

BIBLIOGRAPHY

- Clark, Roger. 1996. <u>Precedents in Architecture</u>, 2th ed. Van Nostrand Reinhold, New York.
- Hoke, John R., 1994. <u>Architectural Graphic Standards</u>, 9th ed. John Wiley & Sons, New York.
- Wisely, Nancy. Spring 2000. "Retaining students through social interation: Special assignment residence halls", <u>Journal of College Admission</u>. Skokie.
- Swenson, Bob. 1989., <u>The University Honors Center</u>. Swenson Kaha Architects, Carbondale, Illinois.

REFERENCE



Discussion with Honors Students

February 15, 2000 7:30 a.m.

Participating Students Freshman 2 Sophomore 8 Junior 8

001.101	•
Senior	<u>8</u>
Total	26

How many seniors live on campus? Two

Live off campus? Six

Would anyone participating in discussion move back to campus if they had a chance to live in the Honors Center? No

Reasons:

Family/ Spouse Nontraditional Students

Living with roommates that aren't honors students

If this was built before entering as a freshman would that impact your decision?

Maybe 15 Yes 2 No 9

Where would be a better location for the center?

In between Woody & Pullman.

Rooms Questioned by Honors Students

- > Change House Parents to Resident Adviser
- Could the parlor to be used as an entertainment center (weekend get together, movies, etc.)
- Addition of larger Computer Room available only to honors student it would help pull more honors students into center.

Other Concerns

> Audio visual center- satellite feed- state of the art center

Materials for library should be related to honors class and maybe the top 10 books for reading pleasure. -Comment- If anyone was to do research they would use Morris.