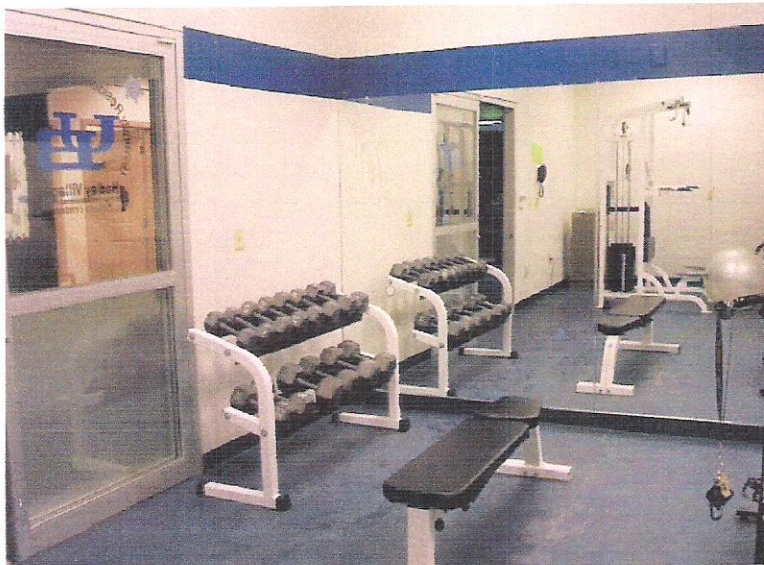


Innovative Engineering, Inc.

Project Proposal

Hadley Village Apartment Complex Fitness Facility Expansion



**Presented by: David DeWolf, P.E.
Senior Engineer
Innovative Engineering, Inc.**

**Presented to: Mr. Brian Steinburg
Hadley Complex Director
University at Buffalo**

April 13, 2004

Innovative Engineering, Inc.

Corporate Circle, Suite 112
599 Right Road
Buffalo, NY 14216

April 13, 2004

Mr. Brian Steinburg
Hadley Complex Director
University at Buffalo
1 Community Building
Buffalo, NY 14216

Dear Mr. Steinburg,


Enclosed is our proposal for an expansion of the existing Hadley Village fitness center. The Hadley Community Building is not providing students with a large enough fitness center. By lacking the appropriate space and equipment required for the number of residents in Hadley Village, the university is missing out on an opportunity to increase revenue by \$50,000 per year as well as lessening the quality of living for students.

Physical fitness has risen to be a popular pastime for students living on-campus. The current fitness facilities in use are filled to capacity all day long making students feel rushed. Waiting in lines for equipment in Alumni Arena sometimes reach 12- 15 students within an hour. The university already owns land near and around the Hadley Community Building. The construction cost is estimated at \$350,000, with a return time of 7 years. If implemented, the new facility could be installed for the 2005 fall semester.

I recommend that you carefully review this proposal. An expansion to the fitness facility will attract more students to stay on-campus throughout their college career, as well as increasing the university revenues by \$50,000 per year. The University at Buffalo will have a new attraction to catch the attention of more students towards the North Campus Apartments.

I will contact you on April 20, 2004 at 10:00 AM to further discuss this proposal. Feel free to contact me by phone at (716) 360-0787 or e-mail at dsdewolf@innovativeeng.com with any questions.

Sincerely,



David DeWolf
Senior Engineer
Innovative Engineering, Inc.

Enc. Proposal

Innovative Engineering, Inc.

**Proposal to Expand the Existing Fitness
Facility Located in the Hadley Village
Apartment Complex**

**Presented by: David DeWolf
Senior Engineer
Innovative Engineering, Inc.**

**Presented to: Mr. Brian Steinburg
Hadley Complex Director
University of Buffalo**

April 13, 2004

Innovative Engineering, Inc.

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EXPANSION OF THE HADLEY VILLAGE FITNESS FACILITY

EXECUTIVE SUMMARY

Presented by: David DeWolf, P.E.
Owner
Innovative Engineering, Inc.

Presented to: Mr. Brian Steinburg
Hadley Complex Director
University of Buffalo

The Hadley Village Apartment Complex lacks an adequate amount of space for residents in the fitness facility. Residents find themselves waiting for machines in Hadley or traveling to Alumni Arena and still waiting in lines to use equipment. Residents having to wait are becoming frustrated with the lack of space. The complex and university directors have found themselves bogged down with complaints.

Innovative Engineering Inc. have designed and constructed three new buildings located on-campus. Our goal is to bring an on-campus fitness facility to the Hadley Village Apartment Complex, on a current plot of land owned and run by the university. There would be many immediate benefits to this facility:

- Increasing the revenue by approximately \$50,000 per year.
- Creating more space and equipment for the increasing trends of students staying physically fit.
- Improving relations between Hadley Village residents and directors, providing a better community.
- Creating more on-campus student jobs position.

Our team of architects and engineers will build this expansion. This process will need an initial investment of \$3,500. The financial risk will be backed by Innovative Engineering Inc.'s guarantee that the project will be done in time for the Fall 2005 semester.

The Hadley facility expansion is the perfect solution for the increasing need for fitness equipment. The university can expect financial benefits from the resident community. The expansion will have a payback point approximately 7 years after initial investment. Revenue will continue to over \$200,000 providing that a facility expansion in Hadley is affordable and a great idea for residents and University profits.

In order to maximize the revenue for the University at Buffalo, construction is recommended to start August 22, 2004. The facility will be opened to students August 1, 2005 I time to start the fall semester.

PROBLEM: LACK OF SPACE IN HADLEY FITNESS FACILITY

Technical

Recently the University at Buffalo has noticed the insufficient space available to students who want to use the existing fitness facilities. This is a major problem considering that over the past five years, health and fitness has become more important to society, including college students (see Figure 1 below). Currently, there are no plans to increase the availability of fitness equipment on campus. The trend of students interested in staying physically fit keeps growing from year to year, causing an equipment shortage for students. During regular university fitness facility hours, students have been known to spend at least half an hour waiting for cardio machines and weight benches. This has left the university boggled with complaints about the gym being “too crowded” or not comfortable for students to work out in.

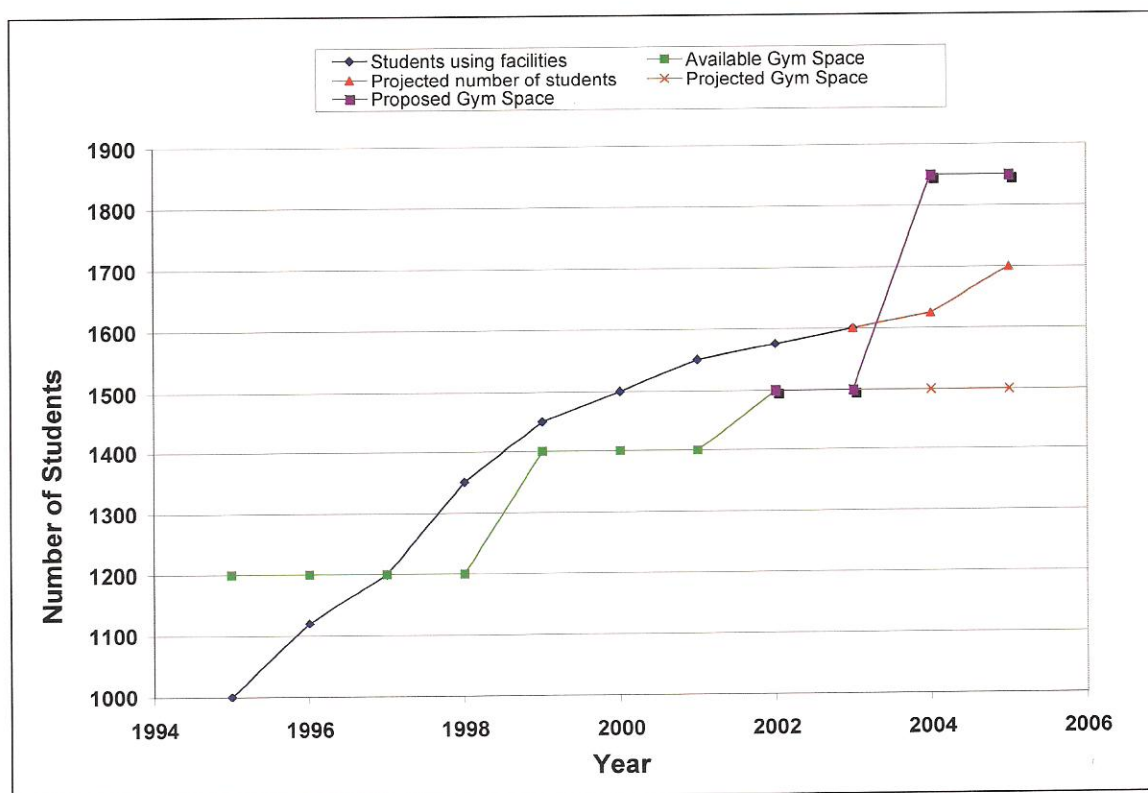


Figure 1 – Number of Students using athletic facilities on campus

The proposed fitness facility would increase the availability of cardio machines and weight benches for the Hadley Village residents. Increasing the availability of gym space would increase the current demand for gym usage. Hadley Village would no longer need to fight with students about the current gym space. Land is available in the Hadley complex to provide a building ground for a new facility. The University at Buffalo already owns and pays taxes on, but does not use this land or the wasted space inside the community building which could be expanded on. Approximately 1600 square feet of

land would be needed to provide enough room to develop and construct a new fitness facility.

Business

The sudden uprising in the need to feel physically fit by college students has taken the university by storm. The present fitness facilities (Ellicott and Alumni Arena) are not suitable for the large population of students here at the university. The students want new and available fitness equipment. Innovative Engineering feels that the existing community building in Hadley isn't being used to its full capacity since the fitness facility is so small (see Figure 2 below). This sequentially means the university is losing money. Approximately \$50,000 is lost per year on increased revenue from a combination of wasted space, a practically vacant existing fitness facility and from students finding alternatives to on-campus housing.

Once completed, the new facility would prevent or discourage present students from leaving on-campus housing for off-campus houses and consequently give the students a "community feel" to living in the Hadley Apartment Complex. The university has other ways to prevent the fitness space problem, such as strengthening the guidelines for coming at the same time everyday and encouraging more students to take advantage of the outdoors, but feels that expansion is the best way to solve this problem.



Figure 2 – Existing Fitness Facility (3-views)

SCOPE AND GOALS: WHAT NEEDS TO BE COMPLETED

Technical

Innovative Engineering's main goal is to expand on an existing fitness facility in Hadley Village, thus utilizing the available space in the community building of the complex. Since this is a fairly small project, a single contractor will act as a Design/Build entity. Innovative Engineering will handle all design of the new facility, footing and foundation work, erection of the expanded exterior, and interior work (dry wall, carpeting, etc.). Innovative Engineering is a native of the Buffalo area, and is familiar with the Hadley's layout due to previous work with the University at Buffalo. The scope of the work includes:

- Expansion of existing fitness facility located in Hadley Village
- Completion of construction for the fall 2005 semester
- Enforcement of strict schedule to beat extreme weather conditions
- Construction of brown brick façade to match surrounding aesthetics
- Estimated costs totaling \$350,000

The expansion of the existing fitness facility, which will service 50 students at one time (350/day), would begin in the fall of 2004. Construction and excavation of the land to lay the footings and foundations will be crucial, due to the local weather. A more detailed schedule can be seen in the *Implementation* section. Constant inspection by Innovative Engineering's inspection group will produce quality and efficient work.

Business

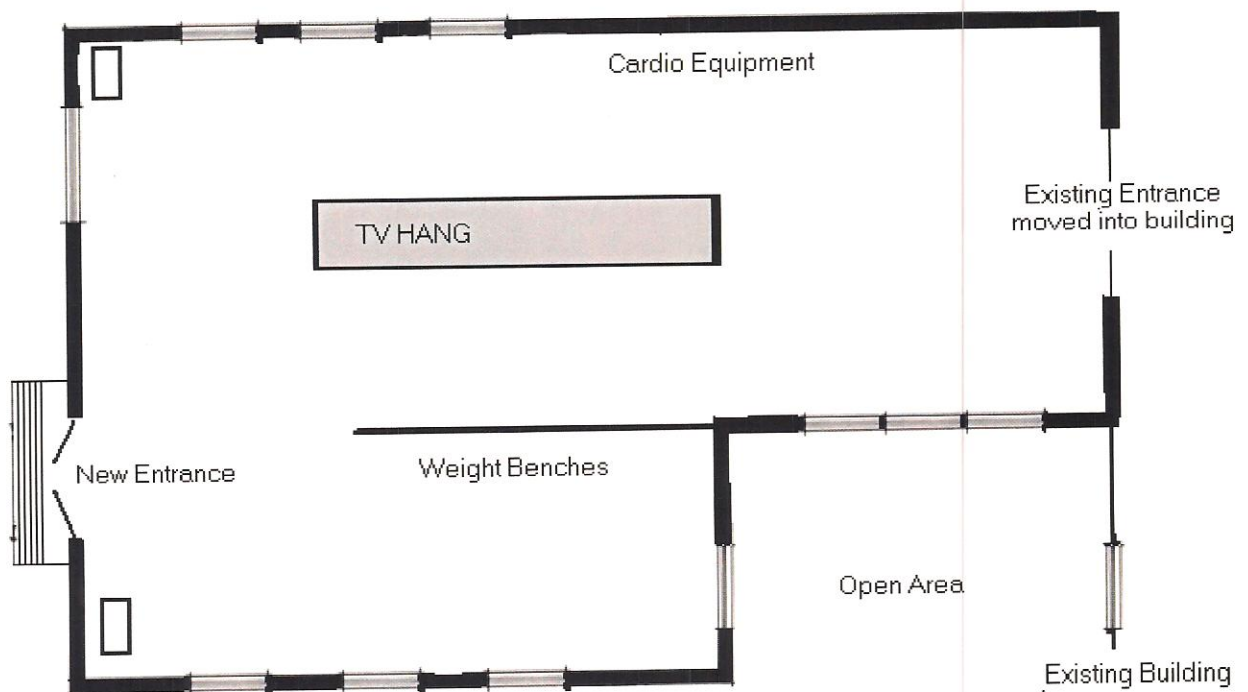
To achieve the goals of obtaining additional revenue, the university must implement a solution quickly. Innovative Engineering plans to manage and complete a cost effective fitness facility design for the University at Buffalo. The benefits will make the new Hadley Fitness Center a very profitable and popular project for present students. The demand for the complex will be immediate, with similar trends as the other on-campus fitness facilities. Some of the immediate benefits will include:

- Satisfying the student body
- Increasing revenue by \$50,000 per year for the university to expand other projects throughout each campus
- Improving relations within the Hadley Village residents

PROPOSED SOLUTION: A NEW FITNESS FACILITY

Technical

Innovative Engineering Inc.'s architects have come up with two different floor layouts to use in the facility expansion. The expansion will hold 50 students comfortable at one time and 350 students over the course of one day. The layout will include a new entrance door accessible without having to go through the community building. Both sides of the facility will have water fountains and industrial fans. Also TV's will be hung from the ceiling through the center of the facility for residents interested in Cardio workouts. Figure 3 below shows option one for a floor layout in Hadley Village Community Building.



***Figure 3 – Possible Fitness Facility Layout
(5000 Square Footage for Above Fitness Facility)***

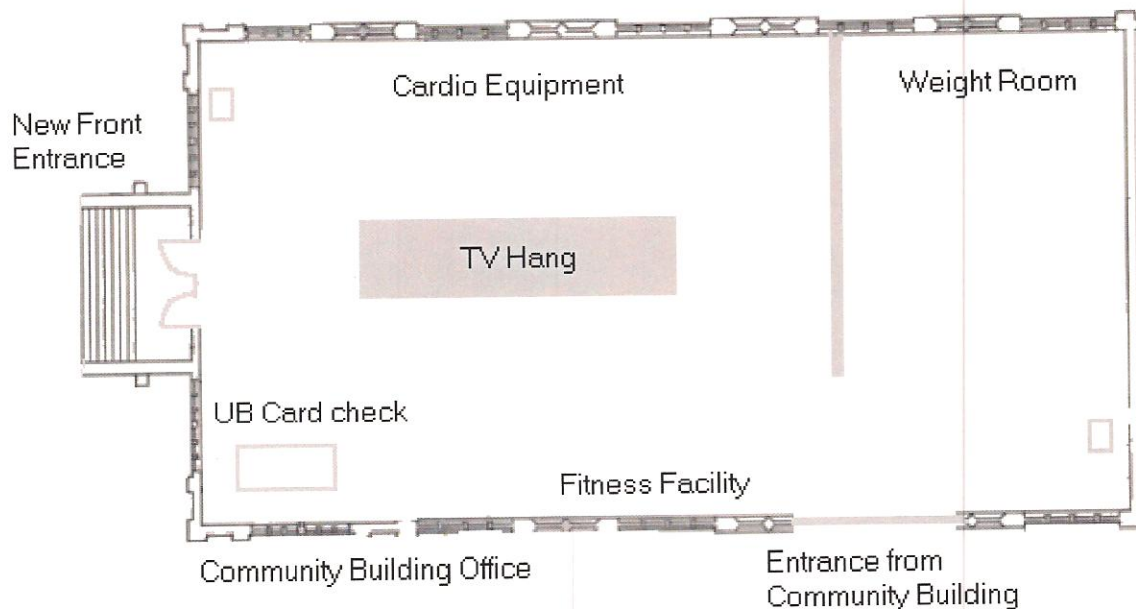
Campus Survey:

In addition to the mandatory criteria, a survey was conducted by Innovative Engineering in November 2003. Current residents of the on-campus apartments were asked how they felt about their apartments and what needed to be changed. An overwhelming response was that there was insufficient room in their fitness facilities. Other responses included the laundry facilities and the lack of space in selected bedrooms.

Innovative Engineering acknowledges problem areas, and the current design has already taken those factors into account. To accommodate the students, the expansion will increase fitness area. The entire area will be 45 feet longer than originally and will include 95% more cardio and weight equipment.

Floor Plan Selection:

Floor plans were chosen out of a point system. Based on the universities criteria, Innovative Engineering Inc. set up a table to list the positives and negatives for each design. The proposed layout (see Figure 4 below) has been chosen because it is the most efficient and cost effective design. This selection has a pre-constructed steel frame to save on construction costs. The shell of the expansion will be sealed with a patented insulation system, to minimize heat and energy loss. Tests performed by an outside agency have concluded that the proposed design ranks lower in cost, construction, and square-foot usage.



***Figure 4 – Proposed Fitness Facility Layout
(Proposed Layout will Include 3550 Square Footage)***

Business

The proposed expansion will cost the university \$350,000 to build and furnish completely. An initial investment of \$3,500 will be required to start site development and design drawings. The payments of this project will be conducted monthly until the close of the project. This will benefit the university because there are no hefty down payments. The Figure 3 alternative as well as the options to leave the facility as it stands have both been decided against. Figure 3 was not chosen due to its larger size, the space wasted labeled "open area," and the extra windows costing more money (\$100,000). As far as leaving the facility as it, the campus survey taken was aimed toward expanding the facility. This expansion will eventually result in a happier community within Hadley Village. The proposed expansion layout will best serve the university not only for its cost, but also for its functionality. A total of \$5,000 will be conserved due to the patented energy saving insulation shell, on the outside of the facility. The university will also save \$25,000 on construction costs.

In addition to building the overall structure, Innovative Engineering Inc.'s team of architects and interior designers has included the option to formulate a color scheme, and fully furnish the fitness facility (equipment, mirrors, carpeting, ect.) at no additional cost which has already been added to the final cost.

IMPLEMENTATION: PROJECT ORGANIZATION AND FUNDING

Technical

Innovative Engineering Inc. prides itself on the quality of their work. Deadlines have been provided, ensuring quick and efficient completion of milestones throughout the project. If a deadline is not met, a penalty will be implemented of 10 billable hours for each day the project is delayed. A more detailed list will be arranged once an agreement has been formulated and completed. Table 4 below lists the tasks, as well as their estimated completion dates and those individuals heading the particular phase.

Table 4 – Phases and Expected Completion Dates

Phase	Activities	People in Charge	Finished
1	Preliminary Design	Matthew Vetter	Oct. 31, 2004
	Final Design		
	Surveying of Proposed site.		
2	Excavating	Michelle Potter	Jan. 2, 2005
	Footer/Foundation		
3	Expansion Framing	Nicholas Williams	Feb. 27, 2005
	Facility "Shell"		
4	Interior	John Maier	June 4, 2005
	Finishing		
5	Clean up	Michael Smith	July 17, 2005
	Inspections		

The previous table is an approximation as to who will be leading each phase of construction and when each separate phase is expected to reach completion. Every phase is lead by highly trained individuals with experience in the required fields and backed by Innovative Engineering's soaring quality guarantee. A final schedule will be agreed upon and signed when the project begins. The dates are flexible as well, if the university would like to start the project at an earlier or later date, Innovative Engineering Inc. can change the start date.

A similar complex was designed and completed by Ms. DiCaprio and her staff at Penn State. The University at Buffalo and Penn State have similar goals in respects to timeframe, as well as a similar project scope. The facility will be completed and handed over to the University at Buffalo in mid July, so there will be ample time to familiarize staff with the expansion. The facility will be inaugurated and formally handed over to Brian Steinburg on August 1, 2005.

Business

The first payment of \$3,500 will be required by the start date of the project. Once the University at Buffalo officials have signed a written agreement, the final design will be reviewed and equipped for construction. The University at Buffalo will at this point have the opportunity to choose equipment and furnishings.

The following schedule (see Figure 5 below) and Project Funding profile (see Figure 6 below) have been formulated from past-related jobs.

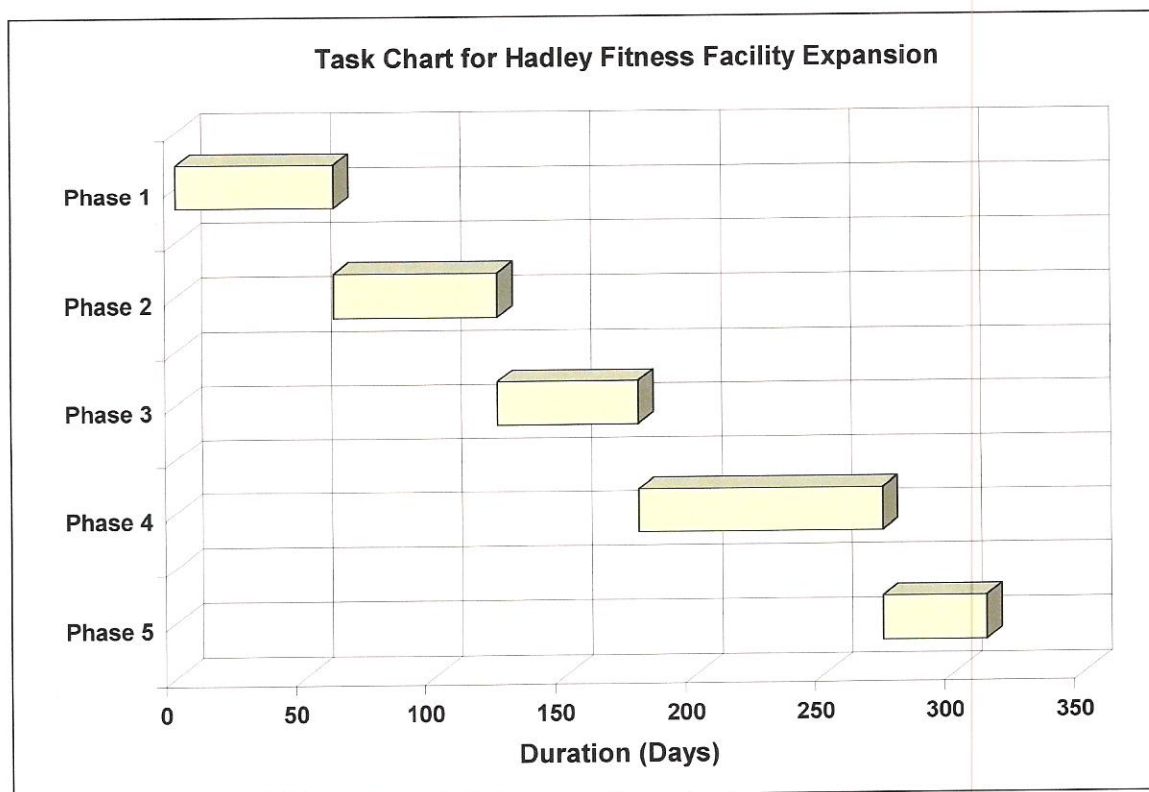


Figure 5 – Project Schedule for Hadley Expansion
(The Funding Profile and Project Calendar align for clear allocation of funds.)

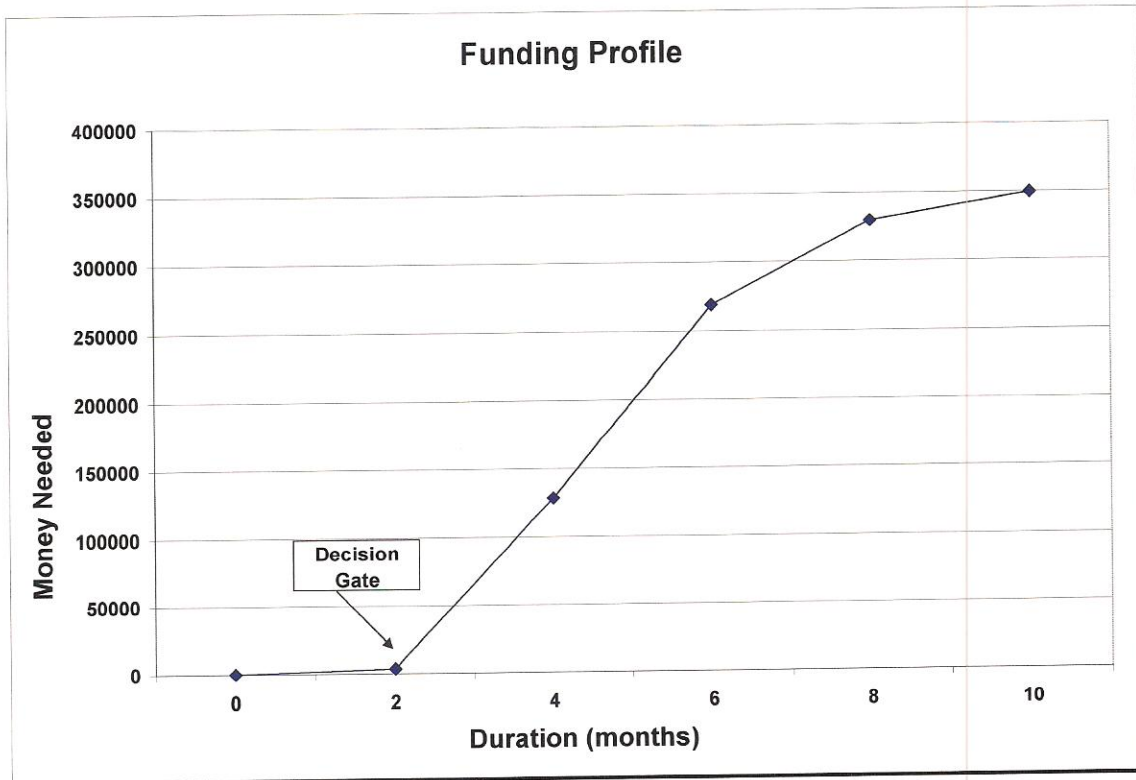


Figure 6 – Funding Profile for Hadley Expansion

The university has the option of terminating the project at the decision gate. The total price for the new fitness facility is \$350,000, which is an approximation from our estimating team.

The total budget for the new fitness facility is \$350,000. Figure 7 below shows a breakdown of all design and construction work.

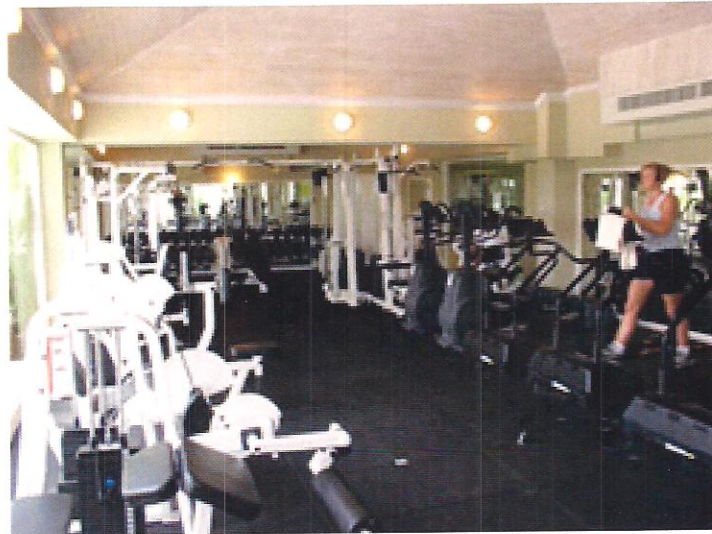
	<u>Item</u>	<u>Total Cost(\$)</u>
<u>Phase 1</u>		
	Economic Feasibility Study	5,000
	Preliminary Design	8,000
	Final Design Plans	13,500
	Surveying of Site	6,000
	Contract Approval	3,500
<u>Phase 2</u>		
	Preliminary Site Work	13,000
	Site Excavation	24,000
	Foundation	30,000
<u>Phase 3</u>		
	Steel Framing	45,000
	Facility Shell	60,000
<u>Phase 4</u>		
	Interior Finishes	14,000
	Equipment	50,000
<u>Phase 5</u>		
	Clean up	5,000
	Inspection	7,000
	Labor Costs	18,300
	Consulting and Project Management	30,700
	Estimated Budget	333,000
	Contingency = 5%	16650
	TOTAL ESTIMATED BUDGET	349,650

*Figure 7 – Estimated Budget for Hadley Expansion
(The Final Cost for This Project is \$350,000.)*

RESULTS: PROJECT BENEFITS

Technical

The finished product will be thoroughly inspected by Innovative Engineering Inc.'s inspection team, and checked again by university inspectors. The facility will be ready for students August 1, 2005 after the inaugural ceremony. The dwelling will provide 50 students at one time (350 total/day) with a new fitness facility. Adequate structural reliability will be enforced by Ms. DiCaprios' stamp of approval on the project. Continuous involvement with university maintenance and careful usage by the students will prolong the lifetime of the facility. Along with adding new equipment for the students, the new facility will attract more students to live in Hadley Village Apartments. Figure 7 below is a finished fitness facility at a similar apartment complex completed for Penn State.



***Figure 7 –Finished Product of a Previous Complex.
(Note: The University can incorporate Similar Architecture.)***

Business

As stated earlier, implementation of an expansion to the fitness facility would increase the campus' revenue by \$50,000 per year. This revenue increase will most certainly be a direct result of students choosing to live in the campus apartments and dorms rather than off campus housing.

Figure 8 below illustrates the return on investment for the near future. As the graph shows, a \$100,000 increase in revenue will occur after 9 years. Thus providing sufficient proof that the increased community feel brought by the expanded fitness facility will persuade students to live on campus and therefore increase the university's revenue by up to \$50,000/year. Included in this number is an increased satisfaction of all the student body involved in the application process.

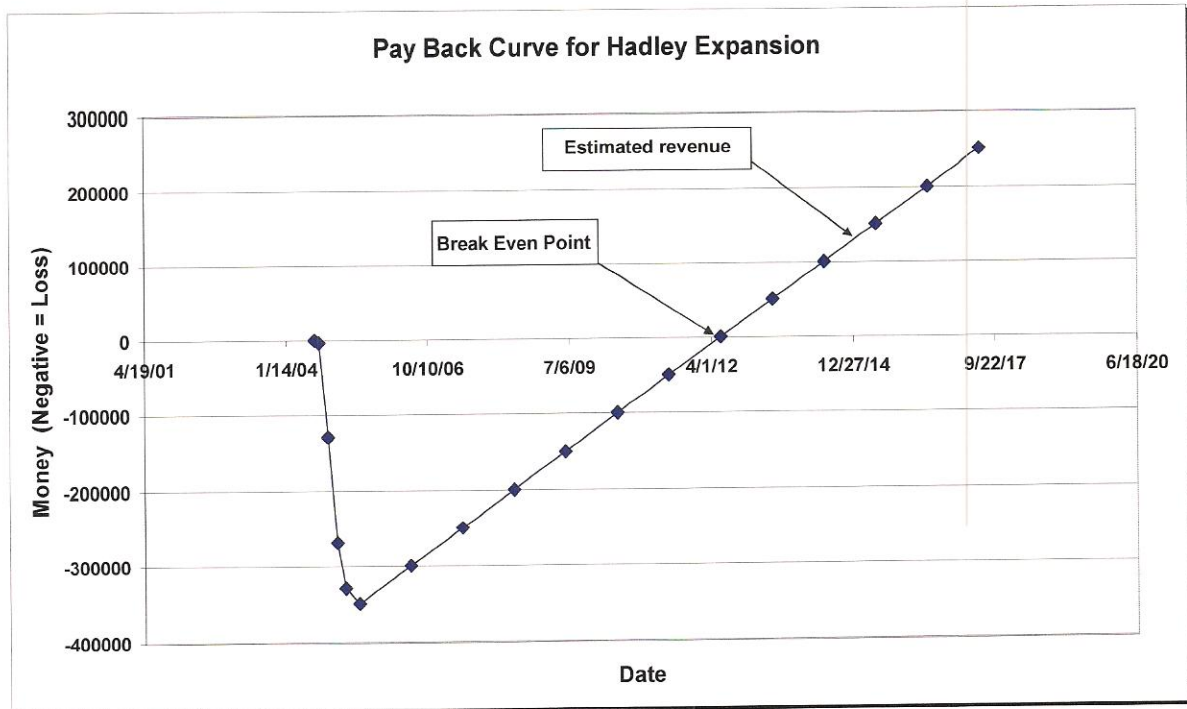


Figure 8 – Payback period for Hadley Expansion

CONCLUSIONS AND RECOMENDATIONS: WHAT TO EXPECT

Technical

The university will, in time, find out how much of a success the fitness facility expansion is. Popularity of the current facilities shows a university trend to change the face of on-campus fitness centers. The university may want to look at the possibility of using land on South Campus to construct another fitness facility and better service the students living on that campus as well. The added 50 students on free exercise equipment at one time will decrease the need for students to live off campus.

The need shows that the students want a new fitness facility, but advertising from the school should be done either by paper or flyers to students. Since the university owns and runs school newspapers, advertising for the new facility will be effortless. The fitness facility expansion should target the upper classmen who live in and are planning to live in Hadley Village.

Business

Communication between all people involved throughout the project is a necessity in order to ensure a prosperous business venture. Innovative Engineering Inc. will set up a phone list, and incorporate any and all parties to contact in the onset of a problem. Familiarity with the people involved from previous projects will provide a more than satisfactory end product.

The current need for more available on-campus fitness facilities doesn't look to slow down in the near future. Students want new, more convenient and comfortable fitness arrangements. Students living in apartments on campus are more likely to move off campus in order to give themselves a bigger variety of fitness facilities. More students will apply to live on campus when they find out about the new expansion. This addition will keep students from leaving campus, and spending their money on other fitness facilities located throughout Buffalo. The increased student satisfaction should be a university priority as well as gaining the extra revenue to improve other aspects of the campus.

The first order of business is the \$3,500 to start the initial design and surveying of the site, due by August 1, 2004 along with our recommended approval from the university. With this money, Innovative Engineering will be able to provide the necessary steps to start the new facility. Once completed the facility will cost a total of \$350,000

The new fitness facility is set to open on August 1, 2005 at a ceremony held by Innovative Engineering Incorporated to congratulate the University at Buffalo on its newest achievement.

APPENDIX

APPENDIX: BIOSKETCHES

David DeWolf, P.E.
Senior Engineer

Mr. DeWolf is a graduate of the University at Buffalo, with a Bachelors of Science in Mechanical and Structural Engineering and a Masters Degree in Construction Management. He has over 15 years of experience in Structural Engineering as well as Project Management. He has been previously involved in many projects with the University at Buffalo and a similar fitness facility at Penn State. He is a Professional Engineer and principal owner of Innovative Engineering, Inc. Mr. DeWolf's proposal is to expand on an already existing fitness facility in Hadley Village Apartment complex located on UB's North Campus. This proposal is directed to Mr. Steinburg, the Hadley Village Complex Director.

Mathew Vetter, P.E. – is the chief design engineer with the Innovative Engineering group, specializing in structural engineering. Mathew earned his bachelors degree in Civil Engineering from the University at Buffalo and is currently a licensed professional engineer. Mathew's extensive background includes several fitness facility expansions at colleges throughout the country including Penn State expansion similar to UB's.

Michelle Potter, P.E. – is currently heading the excavating and footer/foundation work involved in the project. Michelle is a graduate of California at Berkley, where she earned her bachelors of science in Civil Engineering. Michelle also earned her Master's of Business Administration from the University at Buffalo and is currently a licensed professional engineer. Michelle has adequate education and experience involved with excavation and footer/foundation work.

Nicholas Williams – is heading the expansion framing and facility "shell." Nicholas is a recent graduate of Rensselaer Polytechnic Institute of Technology, located in Rensselaer, NY. He has a bachelor's in Civil Engineering and countless years experience with a renowned contractor/builder in Rensselaer. Nicholas knows the ins and outs of framing and has worked with the University on previous occasions when renovating buildings.

John Maier, painter – has been selected for finishes and interior. John has been involved in the fishing portion for over 30 years and is Innovative Engineering's first and only choice when working on a job of this caliber. John's company, *Finish This*, is known throughout the state for the high quality work it always produces.

Michael Smith – is a registered inspector for New York State. Michael overseas all work involved with Universities and big corporations. He earned his Masters Degree from Northeastern University in 1985 and has been inspecting projects for over 25 years.

Proposal to Expand the Hadley Village Fitness Facility

Proposed by: David DeWolf, P.E.
Senior Engineer
Innovative Engineering, Inc.

Proposed to: Mr. Brian Steinburg
Hadley Complex Director
University of Buffalo

A. Problem

1. Technical

- The number of incoming/returning students who chose to use the fitness centers on campus rose by 9% since Fall 2000, from around 1500 to 1700 people.
- There have been a high number of complaints regarding the size of the fitness center in Hadley Village.
- Only 2-3 Hadley residents can comfortably fit in the present facility out of 620 occupants.
- Alumni Arena is currently the only fitness center on campus with sufficient amount of equipment and machines, which makes it overcrowded and uncomfortable to students.

2. Business

- University at Buffalo owns unused land around the Hadley community building to easily expand the existing facility.
- The existing building isn't being used to its full capacity.
- 1 out of every 10 students are choosing to live off campus to find better fitness facilities, which means the University is losing money.

B. Scope and Goals

1. Technical

- Construction of an expansion to be added on to the already existing gym facility.
- Use of local contracting companies familiar with other on-campus athletic/fitness facilities.
- Make Hadley look more attractive with more options.

2. Business

- Increase availability of fitness center space to students.
- Gain additional revenue by increasing monthly apartment cost.
- Re-gain market of students leaving Hadley for privately owned off-campus houses or the other choices of on campus apartments.
- Make Hadley Apartments a better place to live in.

C. Solution

1. Technical

- Develop several Engineering and Architectural design alternatives for the expansion.
- Select the best overall design.
- Obtain approvals from the necessary university officials.

2. Business

- Figure out the best feasible design for the university.
- Pay out the total project cost to the university.

D. Implementation

1. Technical

- Prepare design drawings and specifications on approved solution.
- Put the project out for bidding as a Design/Build project and choose the most cost effective contractor.
- Build the approved fitness center.

2. Business

- Agree upon funding for project.
- Create an overall cost estimate of the project, broken down into sections.
- Create an overall work schedule.
- Formulate a time schedule for the separate phases of the project.

E. Results

1. Technical

- This development will provide more fitness equipment for the students and eliminate the trip to Alumni Arena.
- The Hadley Apartment Complex will be changed for the better and that community feeling will become a reality.

2. Business

- An increase to the schools income from the student's payments per month in their apartments.
- Total cost estimated at around \$350,000.

F. Conclusions

1. Technical

- Provide fitness equipment for students within walking distance from their place of residence.
- Decrease the crowdedness of Alumni and increase the residents' enthusiasm to live in the Hadley Apartment complex.

2. Business

- Increase the aesthetics of the community building and Hadley Village itself.
- Increase the University of Buffalo revenue by increasing the amount of students staying on campus for housing.

G. Recommendations

1. Technical

- \$3,500 needed immediately for initial engineering and architect design work, on community center in the Hadley Complex.
- Have regular communication with Hadley residents, contractors and university officials.

2. Business

- Have the project done for the fall semester so the facility is available once students begin their new leases on August 1, 2005.