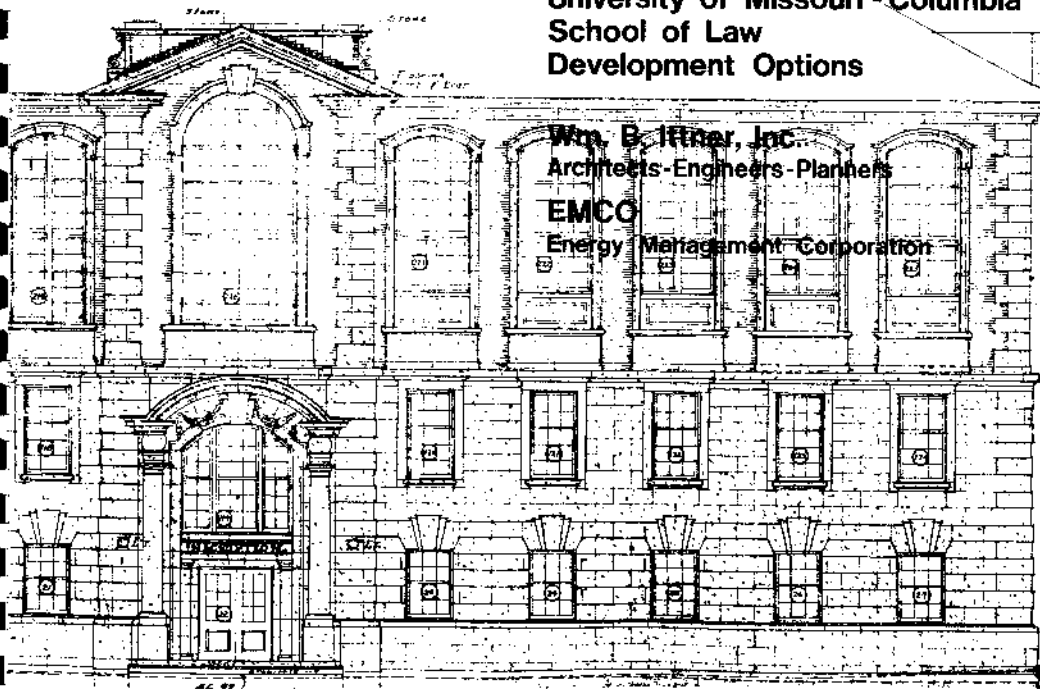


**Chancellor's Report  
University of Missouri - Columbia  
School of Law  
Development Options**



Barbara S. Uehling, Chancellor  
University of Missouri-Columbia  
Columbia, Missouri 65211

May, 1979

Re: University of Missouri-Columbia  
School of Law  
Development Options

Dear Chancellor Uehling:

Enclosed for your reference is the summary report on development options for the School of Law. This report is intended to identify options and alternatives. This report is an end product of a thorough investigation of thirteen options. Three options, having greatest merit were investigated in detail. A final decision as to choice of direction must focus on three determinants, Educational Program, Costs and Implementation.

This study has identified many planning issues and opportunities beyond that of the Law School itself. It is our professional opinion that the Law School Building offers, because of its size, character and location potentials, a significant opportunity for new directions in campus planning.

This planning assignment has been a most exciting and challenging process. We especially appreciate the contribution made in a team effort, by you, Allen Smith, Raymond Halbert, Jack Lister, Emmett Kinkerran and Oswald Overby.

We thank you for the opportunity to serve the University.

Sincerely yours,

WM. B. ITTNER, INC.

Robert O. Little  
President

## Table of Contents

Subject	Page
Executive Summary . . . . .	1
Introduction . . . . .	2
Three Basic Options . . . . .	3
Option 1 . . . . .	4
Option 2 . . . . .	6
Option 3 . . . . .	8
Conclusion . . . . .	10
Appendix . . . . .	11
Options 4 - 13 . . . . .	12
Charrette Session Drawings . .	16

## Introduction

In 1924, Tate Hall was constructed to house the University of Missouri's School of Law. Thirty-five years later an addition was constructed to the west, to accommodate the growing education program and enrollment. Since that time, continued growth has produced the overcrowded conditions which exist within Tate Hall today.

### NEEDS

The needs of the present educational program have outgrown the present facility to the point where every available square foot is being utilized plus portions of the library are forced into storage in other buildings on campus. The need for additional educational space cannot be met within the present walls. The educational program is presently housed within 30,000 square feet of assignable area. To adequately accommodate not only the present educational program but the anticipated needs for the next twenty years, the School of Law requires a minimum of 85,000 square feet of assignable area. This would bring the School of Law on the Columbia campus up to a level comparable with other schools of law in the midwest. The need for expanded facilities is obvious.

### CHALLENGE

The challenge of addressing and investigating the many issues of expansion and growth are great.

Options and alternatives for the physical expansion of the School of Law have been investigated with respect to issues such as internal functioning of the educational program; architectural, structural and mechanical implications; energy conservation; overall campus planning; historic significance, and most importantly, costs.

### PROCESS

To respond to the challenge quickly and effectively, a design charrette process was utilized. An intense three-day planning session on the site enabled the design team to review the needs, identify the issues and respond with three options and ten alternatives which have now been developed in further detail for viability. The following people from the University assisted WBI, Inc. in this effort:

Allen Smith  
Raymond Halbert  
Jack Lister  
Emmett Klinkerman  
Osirund Overby

### PREMISE

To serve as a common denominator in the comparison of all options, the assumption was made that 85,000 square feet of net assignable area was required to meet the program needs as expressed by the School of Law. Using the standard formula of 70% efficiency this translates to 122,000 gross square feet for use in calculating the total cost of construction. Likewise, the unit costs of \$40.00/sq. ft. for renovation and \$60.00/sq. ft. for new construction reflect the prices for jobs bid in June of 1979. Equipment, contingencies and fees are figured at 20% of the construction cost.

This report is intended to identify the options and alternatives for expanded facilities and not to recommend a specific solution.

## The 3 Basic Options

As the options were investigated, it became apparent that many did not adequately address all the issues involved. Through a process of elimination, three options appear to be the most viable:

- A. Build a New building (on a separate site)
- B. Build an Annex facility (on a separate site)
- C. Build an Addition (adjacent to Tate Hall)

This project could be accomplished by two methods, either as a single project or it can be phased.

Phasing of construction can be accomplished by two methods:

### 1. External Phasing

Build the facility piece by piece

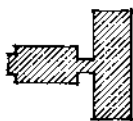
### 2. Internal Phasing

Build the entire shell at first, utilizing the interior as needed.

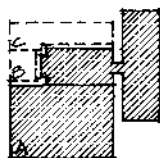
## NEW



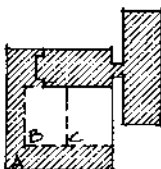
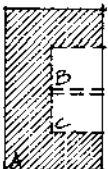
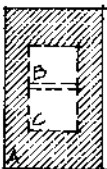
## ANNEX



## ADDITION



## EXTERNAL PHASING



## INTERNAL PHASING

## Option 1

### Build a New Building/New Site

This option proposes construction of an entirely new facility to house the School of Law. It would be four stories in height and occupy a new site.

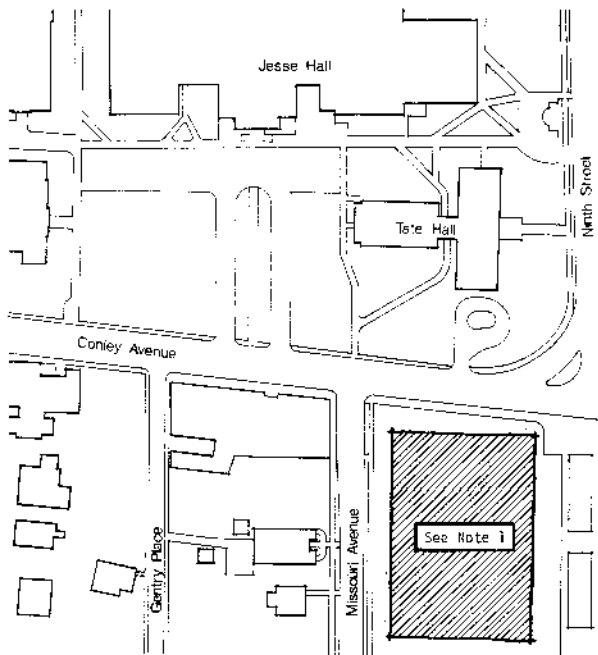
#### Program

New Facility	122,000 gross sq. ft.
	85,000 net sq. ft.
Total Construction Cost	\$7,320,000
Contingencies & Fees	<u>1,464,000</u>
Total Project Cost	\$8,784,000

- \* External Phasing
- \* Internal Phasing

#### Note 1

One such location is the site south of Conley Avenue and east of Missouri Avenue. It would face and have major access from the Ninth Street Pedestrian Mall.



Site Plan

## Option 1

### Build a New Building/New Site

#### Advantages

- A new structure would respond specifically to the program needs of the School of Law. The new building would not have the requirements of an existing building shaping the decision making/design process.
- The new structure will be designed with energy efficiency in mind, thereby reducing maintenance and operating costs.
- Implementation is clear and does not disturb the educational process.
- New construction can be more efficient than renovated construction.

#### Disadvantages

- Just because the spaces created in the new building would be more efficient, does not necessarily mean that they would be more cost effective. The difference between costs of new construction and the costs of renovation indicate that this has the most expensive first costs.
- No matter who becomes the new tenant of Tate Hall, the University still must allocate the funds necessary to prepare Tate for re-occupancy. Not calculated in comparing the development cost of a new building to other options, is the subsequent cost of renovating Tate Hall after vacated by the School of Law.
- This solution would require the use of a different site.

## Option 2

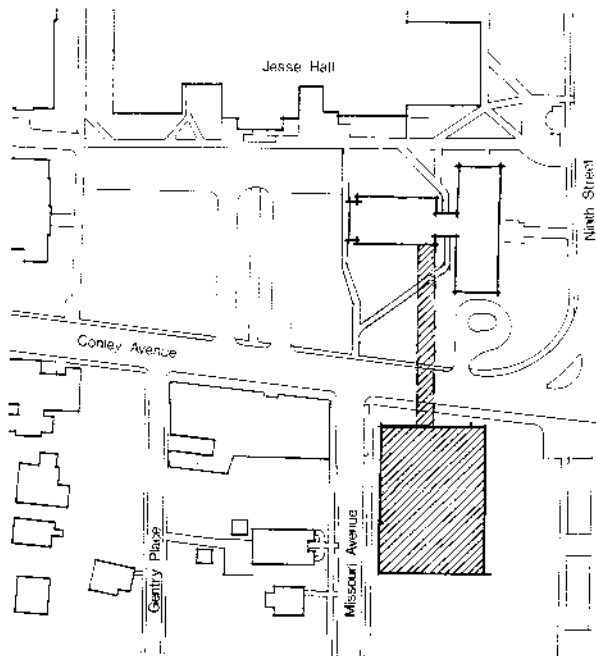
### Build an Annex Facility

This option proposes complete renovation of Tate Hall for principal use by the administrative offices and Library. Another facility would be developed south of Conley Avenue along the Ninth Street Pedestrian Mall to accommodate library space, faculty offices, support facilities and classroom activities.

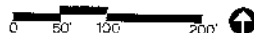
#### Program

Tate Hall	44,000 gross sq. ft.
	30,000 net sq. ft.
New Facility	78,000 gross sq. ft.
	55,000 net sq. ft.
Total	122,000 gross sq. ft.
	85,000 net sq. ft.
Total Construction Cost	\$6,440,000
Contingencies & Fees	<u>1,288,000</u>
Total Project Cost	\$7,728,000

- \* External Phasing
- \* Internal Phasing



Site Plan





## Option 2

### Build an Annex Facility

#### Advantages

- Renovation of the existing classroom space would reduce the amount of new construction required in satisfying the space needs, thus reducing the total construction cost.
- Does not disturb the relationship of Tate Hall to Jesse Hall.

#### Disadvantages

- The most significant problem is that of coordinating an inter-dependent educational program out of two locations. Since the participants in the school's activities are limited to staff, students and faculty, forcing these individuals to commute from one location to another will seriously reduce the effectiveness of the educational program.
- The development of a classroom annex on a site removed from Tate Hall, requires the construction of complimentary service facilities in each location. The increased cost of providing duplicate facilities is difficult to justify.
- Implementation is difficult and does disturb the educational process.
- The passageway between buildings poses a possible security problem.

## Option 3

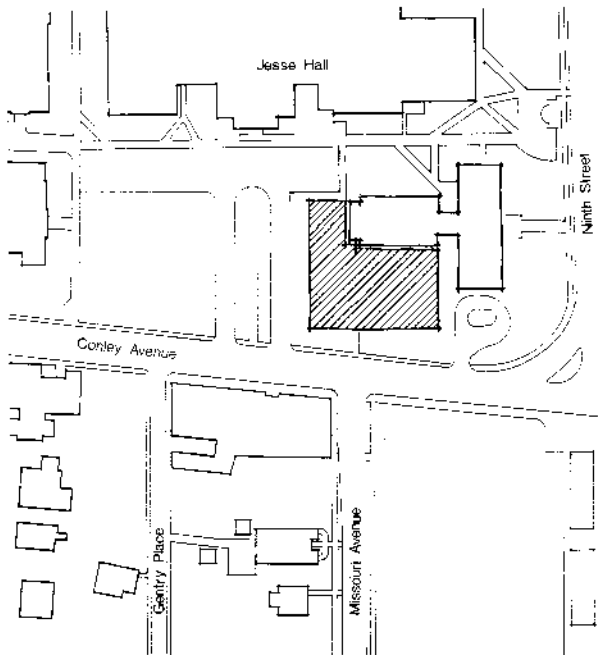
### Build an Addition

This option proposes complete renovation of Tate Hall, and construction of a five-level structure partially encircling the West Wing. The East Wing would be used principally for administrative offices and program support facilities. The existing passageway between wings would be cleared of all encumbrances (including the existing elevator) and used as the main focal point for entry and circulation. The existing floor space in the West Wing will be directly extended into the new structure to house the library, faculty offices, classrooms and courtrooms.

#### Program

Tate Hall	44,000 gross sq. ft.
	30,000 net sq. ft.
Addition	78,000 gross sq. ft.
	55,000 net sq. ft.
Total	122,000 gross sq. ft.
	85,000 net sq. ft.
Total Construction Cost	\$6,440,000
Contingencies & Fees	<u>1,288,000</u>
Total Project Cost	\$7,728,000

- \* External Phasing
- \* Internal Phasing



Site Plan

## Option 3

### Build an Addition

#### Advantages

- Renovation of the existing classroom space would reduce the amount of new construction required in satisfying the space needs, thus reducing the total construction cost.
- Utilizes and preserves available land
- Maintains a viable educational program
- There will be advantages in energy usage by partially enclosing the existing building.

#### Disadvantages

- Implementation is extremely difficult and will greatly disturb the educational process.
- Its location poses a most difficult architectural challenge.
- It's location limits any future growth potential.
- The form and height of the building must be designed so as to complement the historic value of the original Tate Hall, avoid visual conflict with Jesse Hall.

## Conclusion

From the analysis of all thirteen options, it is clear that there are advantages and disadvantages to each.

A final decision as to direction must focus on the following determinants:

### 1. Educational Program

- Function
- Area

### 2. Cost

- New Construction @ \$60/sq. ft.
- Renovation @ \$40/sq. ft.
- Maintenance and Operating Costs

### 3. Implementation

- Construction Phasing
- Construction Funding

These three determinants are inter-dependent.

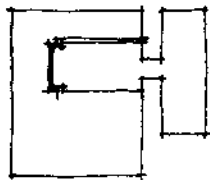
Obviously these determinants will be answered within the context of the overall campus plan.

## Appendix

This portion of the book consists of two parts:

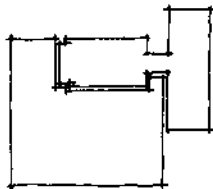
The first part describes the other ten options that were developed by the design team.

The second part consists of the Design Charette Drawings.



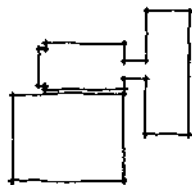
#### Option 4

This option proposes complete renovation of Tate Hall and development of a five-level addition encircling the West Wing of Tate Hall.



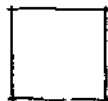
#### Option 5

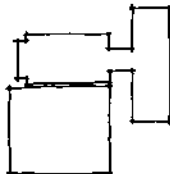
This option proposes complete renovation of Tate Hall and development of a five-level addition to Tate Hall. This option would produce great technical difficulties in connecting with two differing floor levels. The elimination of many windows from the East Wing would create additional problems in providing natural light for the administrative offices. In meeting the internal space requirements, due to the figuration proposed, the site would become overdeveloped. The crowding of the sidewalk along Conley Avenue, and elimination of the trees west of Tate Hall would create a most unpleasant experience of Central Campus and the School of Law.



#### Option 6

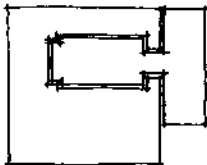
This option proposes complete renovation of Tate Hall, development of a new library facility adjacent to Tate Hall and development of a separate classroom facility south of Conley Avenue.





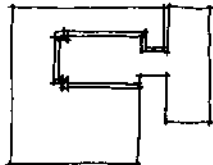
### Option 7

This option proposes complete renovation of Tate Hall and construction of a ten-level addition to Tate Hall. Although functionally feasible, it would create a structure that is out of character with existing development on the campus. There would be a visual conflict between the new tower and the dome on Jesse Hall.



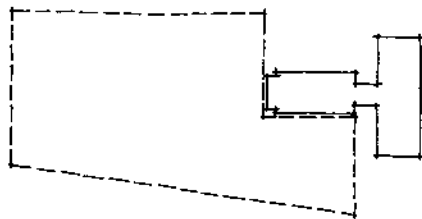
### Option 8

This option proposes complete renovation of Tate Hall and development of a five-level addition to Tate Hall. This option would produce great technical difficulties in connecting with two differing floor levels. The elimination of many windows from the East Wing would create additional problems in providing natural light for the administrative offices.



### Option 9

This option proposes complete renovation of Tate Hall and development of a five-level addition to Tate Hall. As in option 2b, this option would produce great technical difficulties in connecting with two differing floor levels. The elimination of many windows from the East Wing would create additional problems in providing natural light for the administrative offices.

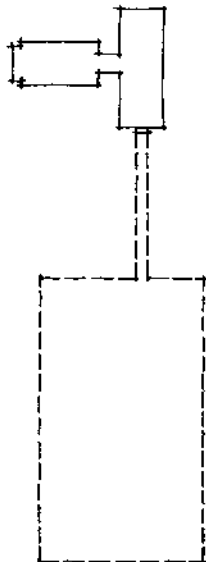


### Option 10

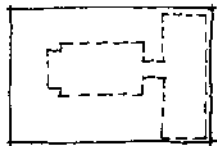
This option proposes complete renovation of Tate Hall and development of a two-level underground facility immediately to the west of Tate Hall. Although considered because of its ability to preserve and enhance the visibility of Jesse and Tate Halls, many complications arise. Maintaining vehicular service access to Jesse Hall would require a continued access drive to be constructed above the addition. High costs for underground construction would be dramatically increased because of problems with underground water and extensive rock excavation required.

### Option 11

This option proposes complete renovation of Tate Hall and development of a two-level underground facility south of Conley Avenue linked by means of an underground passageway. This option experiences the same programmatic difficulties as in options 1b and 1c, of running an interdependent educational program out of two separate facilities. This option also creates the potential problems with user safety, as well as high cost of underground construction complicated by extensive rock excavation, ground water problems and problems with existing utilities that run underground along Conley Avenue.

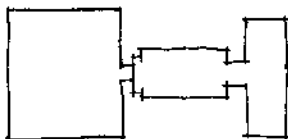






### Option 12

This option proposes the demolition of Tate Hall and constructing a new building on the same site. The cost of this option would be the highest of any considered in this book. This pertains to politics with outsiders in favor of restoration, as well as in terms of money.



### Option 13

This option proposes the construction of a new facility south of Jesse Hall and west of Tate Hall. This option fits awkwardly on the site in its relationship to surrounding buildings.

## Design Charrette Drawings

The following pages show the drawings that were developed by the design team in the charrette session that was held at the University of Missouri School of Law on February 15 and 16, 1979.

Only the construction costs were considered in this session. Therefore, the figures mentioned on page 19 are not the total project costs.

A.



- Renovate East wing of Tote Hall
- New Addition north of Conley Ave.

High rise tower unacceptable!

\*A1.



- Renovate all of Tote Hall
- New Addition north of Conley Ave.



- Renovate East wing of Tote Hall
- New Addition north of Conley Ave. (Library/offices)
- New Addition south of Conley Ave. (Classrooms)



Can fit classrooms north of Conley so why build south (A1) Unacceptable!

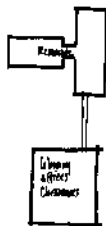
B.

\*C.



- All New Building south of Conley Ave.

\*D.



- Renovate Tote Hall
- New Annex south of Conley Ave.
- Underground Link.

- E. Bury addition to West of Tote / Not feasible - rock problem - 4 levels buried and south of Jesse.
- F. Bury addition to East of Tote / Not feasible - 4 levels buried and West of Ellis. - Utility problems @ 9th - 18th problem
- G. Bury new building south of Conley Ave. / Not feasible - 3 levels buried - rock problem

POTENTIAL OPTIONS

# A1.

RENOVATE ALL OF TATE HALL

$$44,000 \text{ Gross Sqft.} \times \$35/\text{sqft} = 1,540,000$$

NEW ADDITION

$$81,500 \text{ Gross Sqft.} \times \$60/\text{sqft} = 4,890,000$$

**\$6,430,000**

RENOVATE TATE HALL — \$1,540,000.

NEW ADDITION

$$69,500 \text{ Gross Sqft.} \times \$60/\text{sqft} = 4,170,000$$

$$12,000 \text{ sqft Structure} \times \$50/\text{sqft} = 600,000$$

**\$5,770,000**

# C.

NEW BUILDINGS

$$125,500 \text{ Gross Sqft.} \times \$60/\text{sqft} = 7,530,000$$

NEW BUILDINGS

$$95,000 \text{ Gross Sqft.} \times \$60/\text{sqft} = 5,700,000$$

$$25,000 \text{ sqft Structure} \times \$50/\text{sqft} = 1,250,000$$

**\$6,950,000**

BUILD THE VOLUME FOR A  
125,000 SQFT. GROSS AREA BLDG  
BUT ONLY BUILD MINIMAL  
INTERIOR SQ. FT. AREA

# D.

RENOVATE ALL OF TATE HALL

$$44,000 \text{ Gross Sqft.} \times \$35/\text{sqft} = 1,540,000$$

NEW ANNEX

$$81,500 \text{ Gross Sqft.} \times \$60/\text{sqft} = 4,890,000$$

6,430,000

UNDERGROUND UNITS

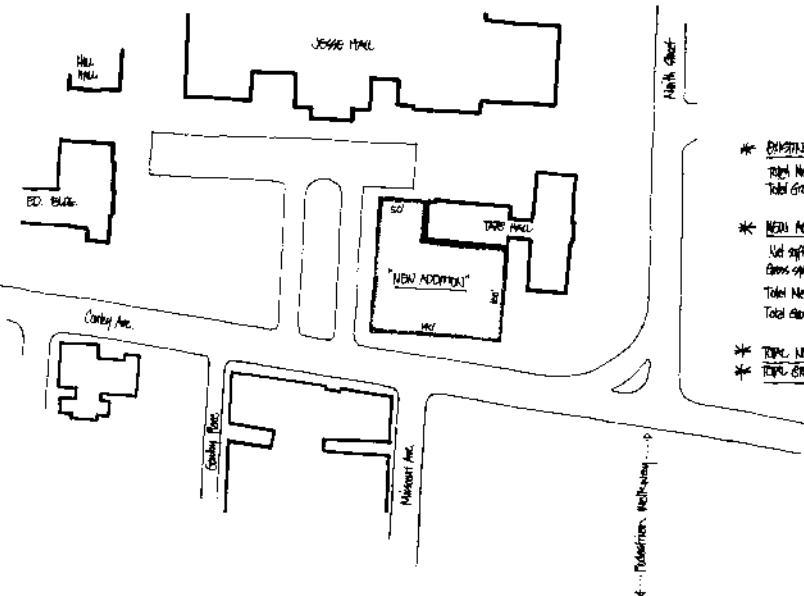
$$1800 \text{ Gross Sqft.} \times \$35/\text{sqft} = 63,000$$

**\$6,493,000**

SAME AS A-1

**\$5,770,000**

"SELECTED OPTIONS"  
PRELIMINARY  
CONSTRUCTION COST  
ESTIMATES



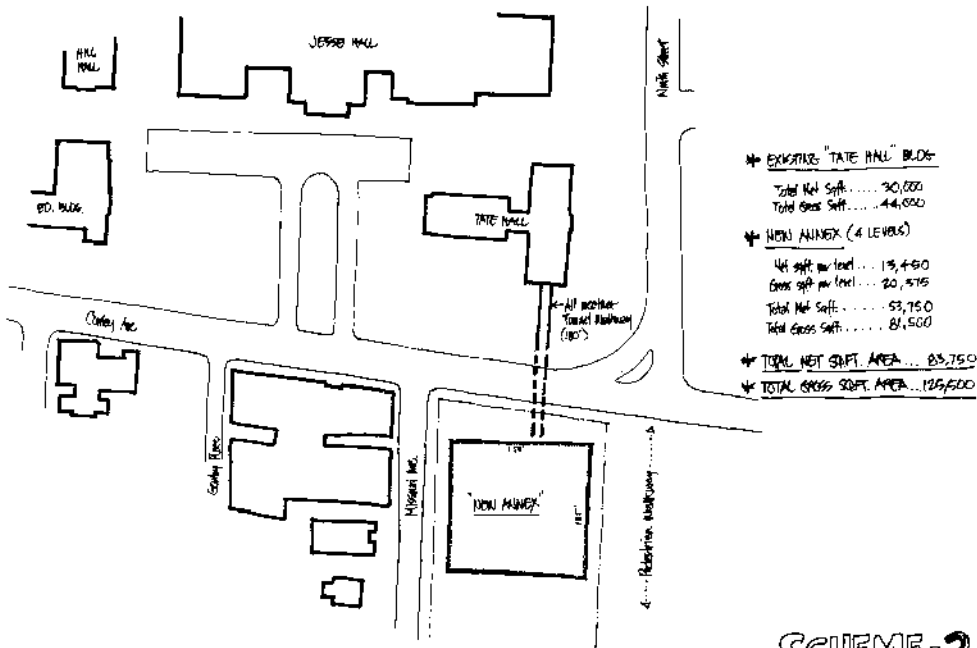
- \* EXISTING TATE HALL BLDG.  
 Total Net Sft. .... 30,000  
 Total Gross Sft. .... 44,000
- \* NEW ADDITION (5 LEVELS)  
 Net sft. per level ... 19,750  
 Gross sft. per level ... 16,300  
 Total Net Sft. .... 98,750  
 Total Gross Sft. .... 81,500
- \* TOTAL NET SQFT AREA ... 89,750
- \* TOTAL GROSS SQFT. AREA ... 125,500

# SCHEME - 1

---

SCHOOL OF LAW

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\* EXISTING "TATE HALL" BLDG.

Total Net Sft. .... 30,000  
 Total Gross Sft. .... 44,000

\* NEW ANNEX (4 LEVELS)

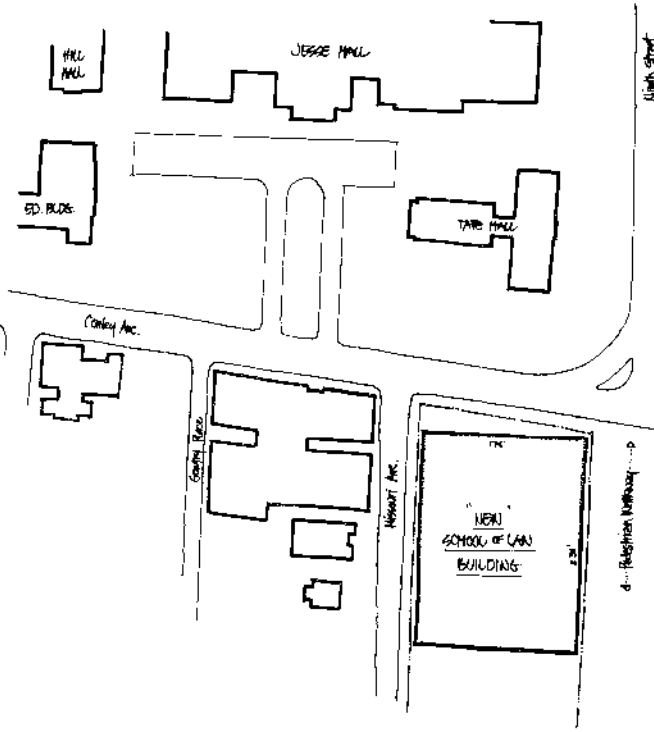
Net Sft. per level ... 13,450  
 Gross Sft. per level ... 20,575  
 Total Net Sft. .... 53,750  
 Total Gross Sft. .... 81,500

\* TOTAL NET SFT. AREA ... 83,750

\* TOTAL GROSS SFT. AREA ... 125,500

**SCHEME - 2**

**SCHOOL & LAW**

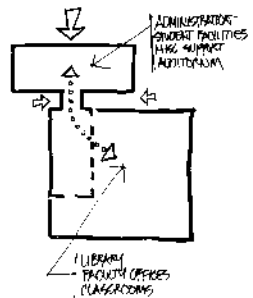
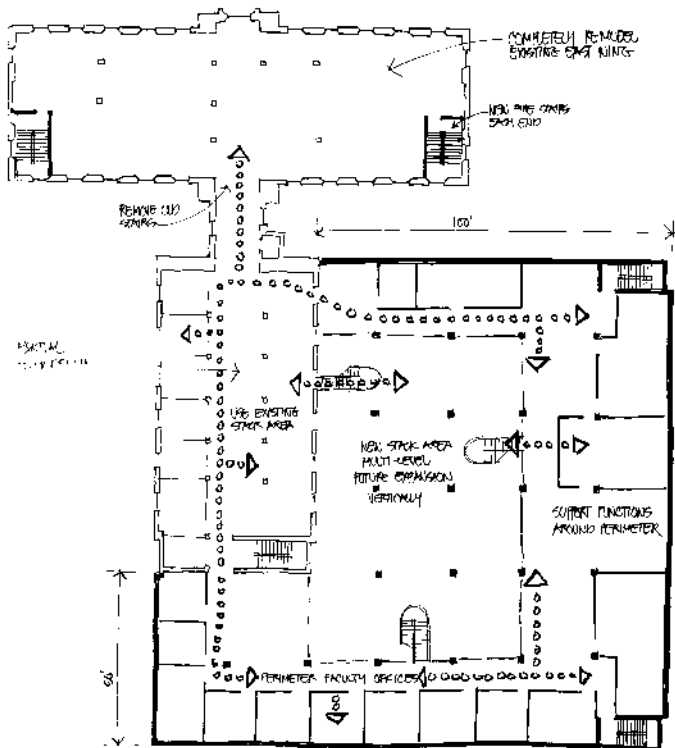


EXISTING TARE MALL BLDG.  
 Abandoned by the School of Law  
 Available net sqft of 90,000  
 for University use.

\* NEW SCHOOL OF LAW BUILDINGS  
 Three (3) levels  
 Net sqft per level  
 Gross sqft per level

\* TOTAL NET SQFT. AREA ... 83,760  
 \* TOTAL GROSS SQFT. AREA ... 125,000

**SCHEME - 3**  
 SCHOOL OF LAW



"TYPICAL PLAN DIAGRAM" 1



