

# *Theory & Praxis:*

## *Planning Student-Centered Facilities*



Housing & Recreation Centers

# *Presentation Outline*

- Historical Overview & Campus Context
- Customized Solutions (some interaction)
- Campus Life Integration Issues (very brief)

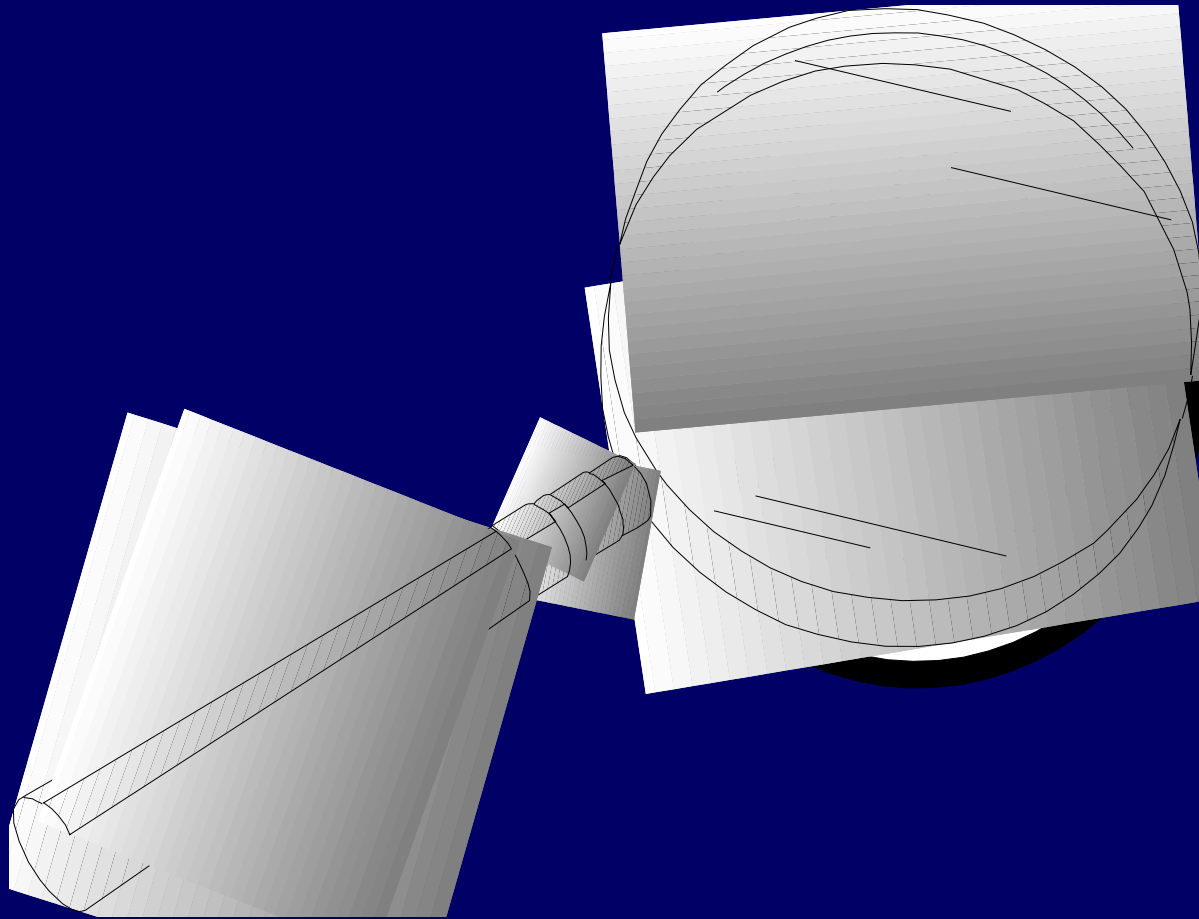


# *Historical Overview & Campus Context*

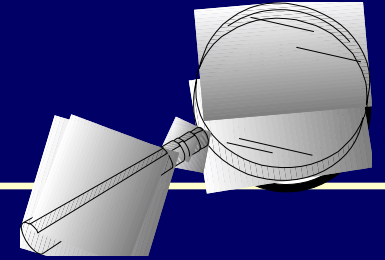
- Eras of Campus Development
- Cause & Effect Relationships
- Market Shifts & Common Responses
- Cause & Effect: Creating The Future



# *Eras of Campus Development*



# *Eras of Campus Development*

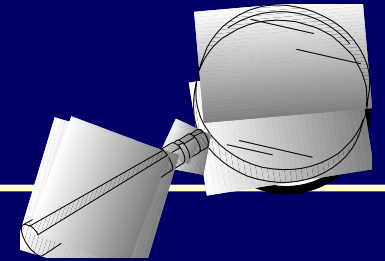


## Building Evolution

- Post WWI Period (the 1920's & 30's)
- Post WWII Period (the 1950's)
- The Modern Era (the 1970's)
- The Contemporary Era (1985 to Present)



# *Eras of Campus Development*



## Building Evolution - *Post WWI Period*

### Student Housing

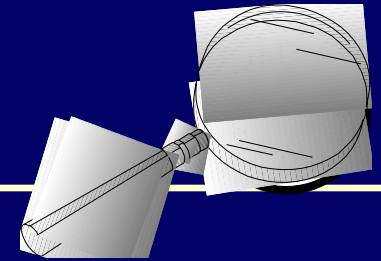
- Market Context
  - Federal Government Gets Involved
  - Students are Cultural Elite
  - Mostly Males
  - Campus Populations are Small
- Facility Characteristics
  - English System Used as a Model
  - Small Dormitory Buildings
  - Traditional Campus Form & Image

### Recreation Centers

- Targeted Users
  - Competitive Athletes & Spectators
  - Male Faculty With Acquired Skills
- Facility Characteristics
  - Traditional Campus Form & Image
  - Collection of Independent Spaces
  - Campus Core
  - “Memorial Gymnasium”



# *Eras of Campus Development*



## *Building Evolution - Post WWII Period*

### **Student Housing**

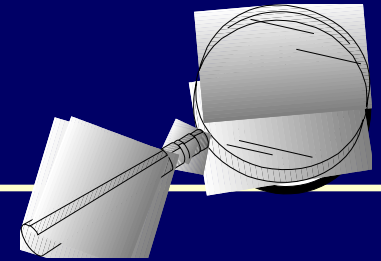
- **Market Context**
  - ▢ **GI Bill Rapidly Expands Enrollments**
  - ▢ **Land Grant Schools Grow Most**
  - ▢ **Student Expectations are Limited**
- **Facility Characteristics**
  - ▢ **Construction Geared to Rapid Delivery**
  - ▢ **Gang Baths & Double Occupancy Rooms are Standard**
  - ▢ **Architectural Quality is Secondary Priority**

### **Recreation Centers**

- **Targeted Users**
  - ▢ **Varsity Athletes**
  - ▢ **Life Sports Instruction**
  - ▢ **Male Faculty**
- **Facility Characteristics**
  - ▢ **Gymnasium Field House**
  - ▢ **Quantity Over Quality**
  - ▢ **Background / Fringe Buildings**



# *Eras of Campus Development*



## Building Evolution – *Modern Era*

### Student Housing

- Market Context
  - Baby Boom Explodes
  - College Attendance Rates Top 30%
  - Schools' Parental Role Expected
  - Educational Outcomes Sought
- Facility Characteristics
  - Large Scale High Rise Dorms Become Common
  - Double Rooms & Gang Baths
  - Architectural Ambition is Limited
  - Construction => Built to Last

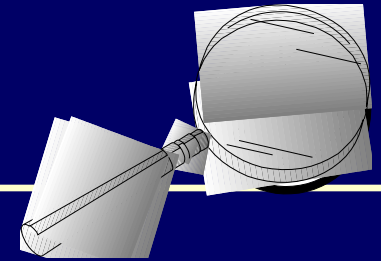
### Recreation Centers

- Targeted Users
  - P.E. Instruction
  - Exercise Science Research
  - Intramural Sports
- Facility Characteristics
  - “Modern Buildings”
  - Simple Box Forms
  - Collection of Separate Spaces
  - Campus Core Location





# *Eras of Campus Development*



## Building Evolution – *Contemporary Era*

### Student Housing

- Market Context
  - Over 45% of H.S. Graduates Attend College => Capacity Issues
  - Students Used to Single Rooms
  - Consumer Mentality Prevalent
  - Off-campus Competition Growing
- Facility Characteristics
  - Smaller Scale Intended to Foster Community
  - Many Dormitories Have Themes
  - Suites & Apartments Compete With Off-campus Options
  - Private Partners Become Common

### Recreation Centers

- Targeted Users
  - General Student Population
  - Fitness & Social Functions
  - Physical Education
- Facility Characteristics
  - Hero & Gateway Buildings
  - Dramatic Open Interiors
  - Scale Often Dictates Location



# *Cause & Effect Relationships*

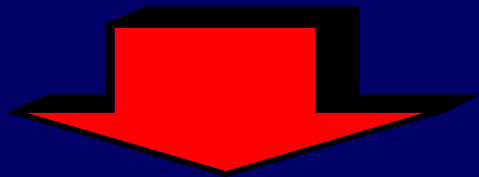


# *Cause & Effect Relationships*

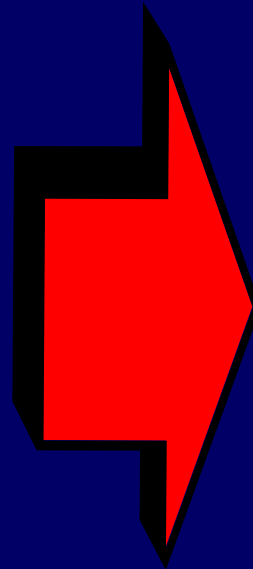


## Cause / Effect Relationships: Contemporary Era

Shortage of Students /  
Shortage of Funds



Quality of Life Focus /  
Self-Supporting Projects









Empowered  
Customers  
(Buyer's Market)

Market Driven  
Forces



# *Market Shifts & Common Responses*

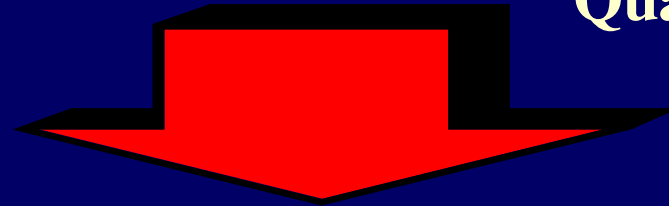
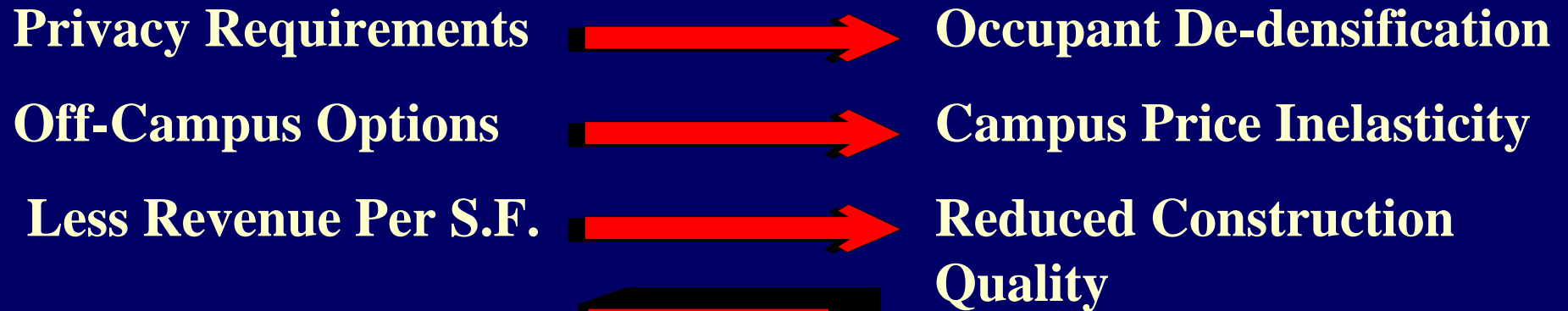
## Student Housing

<b>Kids Share Bedrooms</b>		<b>Kids Have Single Rooms</b>
<b>School as Parent</b>		<b>Freedom &amp; Privacy</b>
<b>Limited Options</b>		<b>Many Off-campus Options</b>
<b>Limited Possessions</b>		<b>Clothes, T.V.'s, Stereos, etc.</b>
<b>No Air-conditioning</b>		<b>Air-conditioning Essential</b>
<b>Technology a Fantasy</b>		<b>Technology a Reality</b>



# *Market Shifts & Common Responses*

## Student Housing



## **Most Challenging Campus Housing Development Era Ever**

-  Housing Missions, Objectives & Policies Questioned
-  Alternative Delivery Strategies & Ownership Structures Required
-  Increased Institutional Risk & Investment Required For Targeted Outcomes



# *Market Shifts & Common Responses*





## Campus Recreation

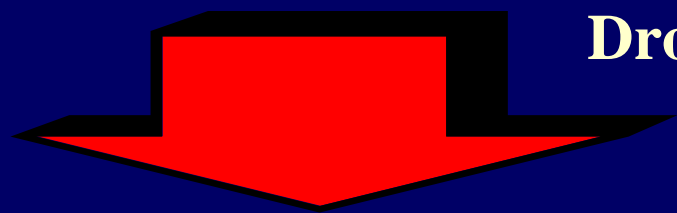
<b>P.E.&amp; Athletics Focus</b>		<b>Recreation / Social Focus</b>
<b>Utilitarian Function</b>		<b>Dynamic Social Space</b>
<b>Limited Audience</b>		<b>Maximized Appeal</b>
<b>Shared Use Facilities</b>		<b>Special Purpose Buildings</b>
<b>Directed Programs</b>		<b>Market Driven Services</b>
<b>Free Employee Use</b>		<b>Fee Based Memberships</b>
<b>Male Dominated</b>		<b>Gender Balanced</b>



# *Market Shifts & Common Responses*

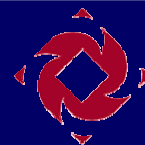
## Campus Recreation

<b>Demand For Recreation</b>		<b>Value For Substantial Fees</b>
<b>Value Added Services</b>		<b>Substantial Spec Revenue</b>
<b>Greater Business Focus</b>		<b>More Skilled / Larger Staffs =&gt; Budgets</b>
<b>Title IX Mature Culture</b>		<b>Female Intramurals &amp; Drop-in Sports</b>



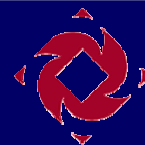
**Most Exciting Campus Recreation Development Era Ever**

 Substantial Resources Allows Large Projects to be Feasible Within Tolerable Risk Parameters





*What's Next?*



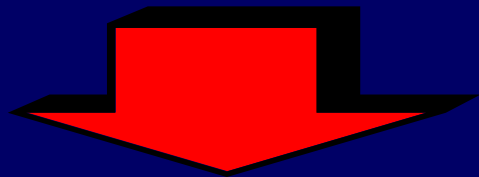


# *Cause & Effect Relationships*

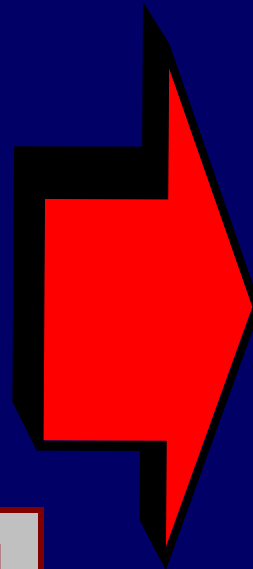


## **Creating The Future**

External Pressure to  
Build Increases / Early  
Builders Fall Behind



Importance of Differentiated  
Projects Grows



Exterior Architecture  
Large Scale  
Institutional Themes





THIS IS THE LIFE IN COLLEGE LIVING.











Courtesy of Capstone Development





Courtesy of Capstone Development



Courtesy of Capstone Development





Stille & Associates Architects



Courtesy of Hastings & Chivetta



Courtesy of Hastings & Chivetta



Courtesy of Hastings & Chivetta



Courtesy of Hastings & Chivetta



Courtesy of Hastings & Chivetta





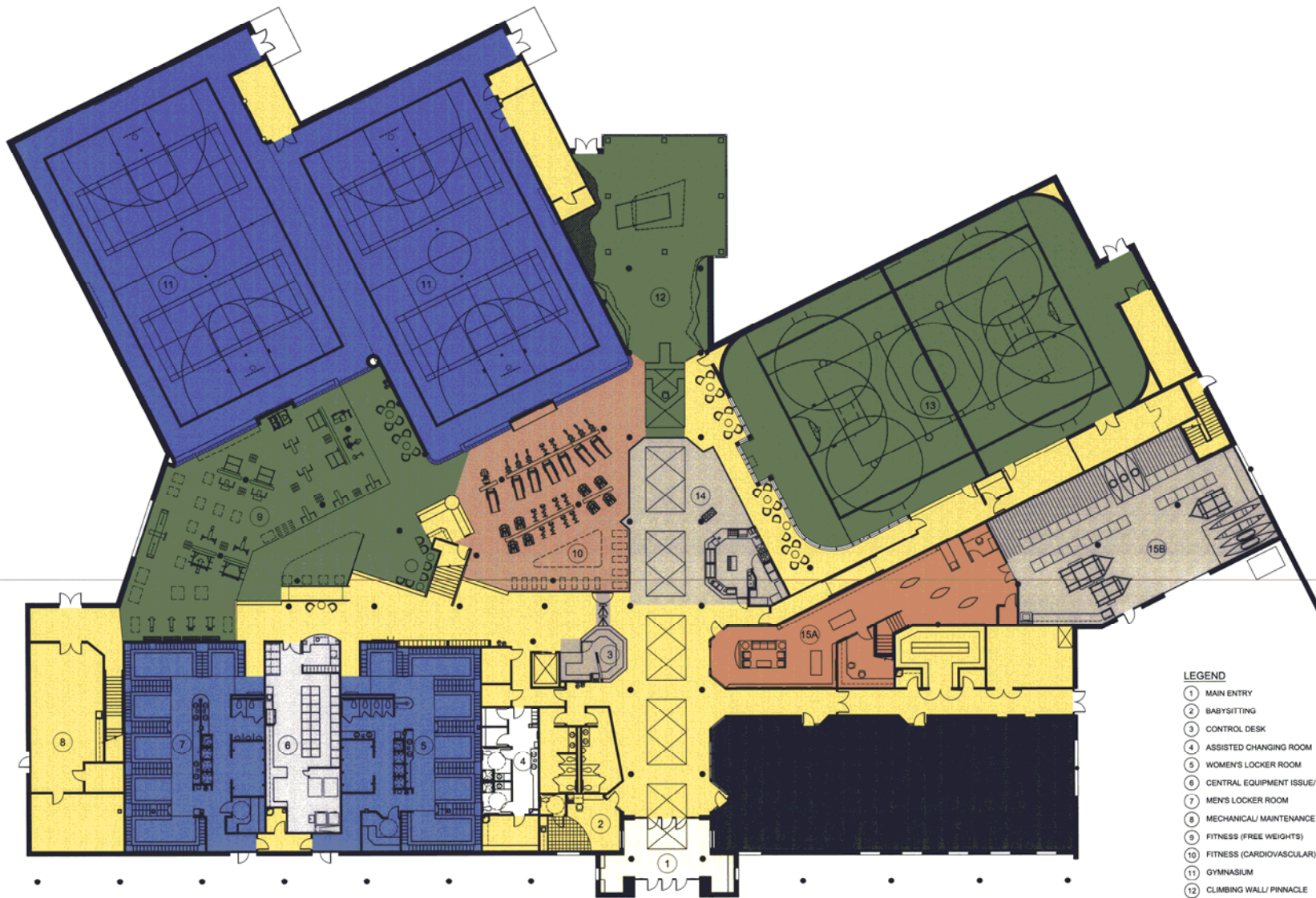
Courtesy of Cannon Design







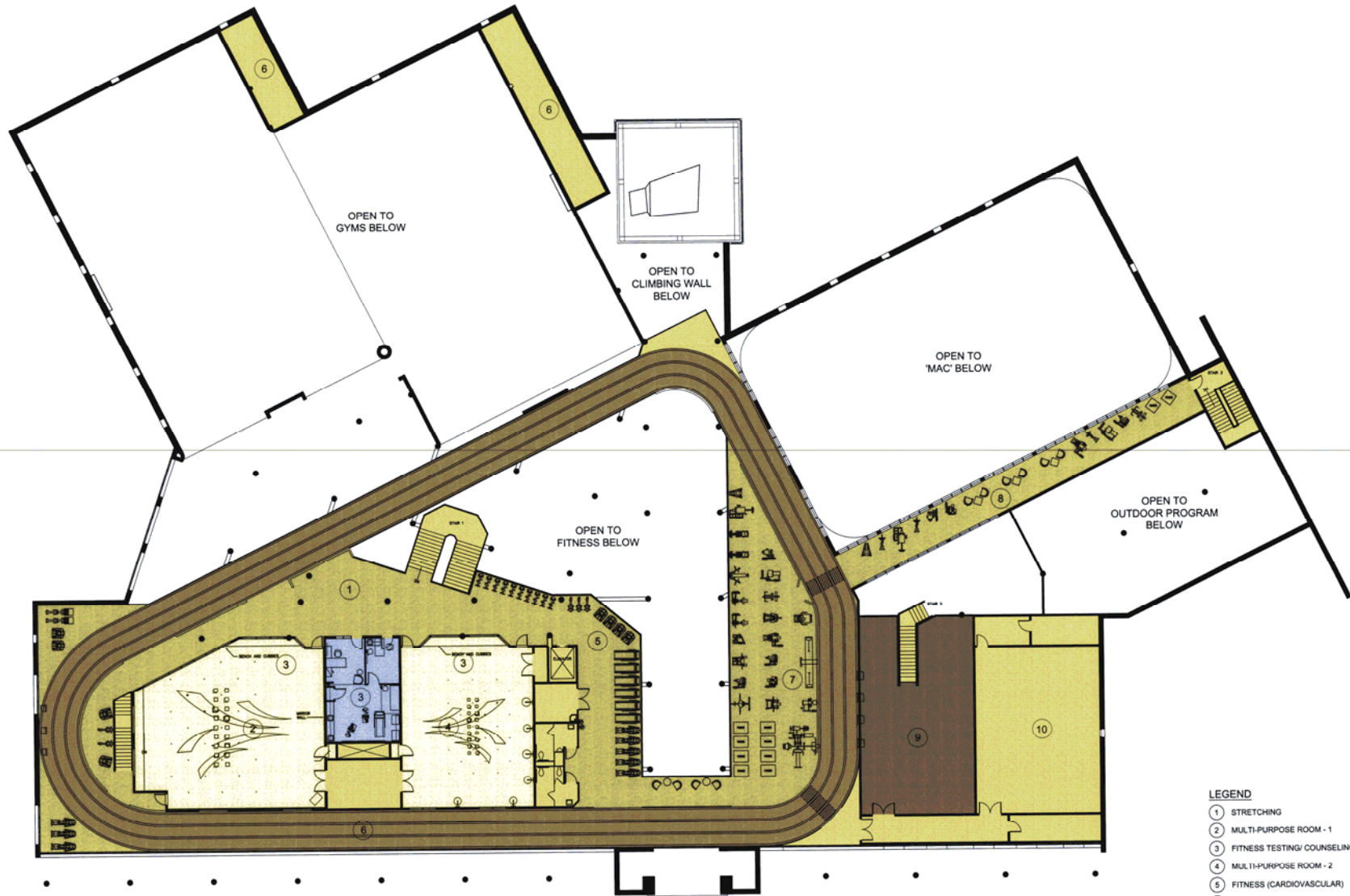




**LEGEND**

- ① MAIN ENTRY
- ② BABYSITTING
- ③ CONTROL DESK
- ④ ASSISTED CHANGING ROOM
- ⑤ WOMEN'S LOCKER ROOM
- ⑥ CENTRAL EQUIPMENT ISSUE/ LAUNDRY
- ⑦ MEN'S LOCKER ROOM
- ⑧ MECHANICAL/ MAINTENANCE
- ⑨ FITNESS (FREE WEIGHTS)
- ⑩ FITNESS (CARDIOVASCULAR)
- ⑪ GYMNASIUM
- ⑫ CLIMBING WALL/ PINNACLE
- ⑬ MULTI-ACTIVITY COURT
- ⑭ LOUNGE/ JUICE BAR SEATING
- ⑮ OUTDOOR PROGRAM RESOURCE/ RETAIL

Courtesy of Ohlson Lavoie



SECOND FLOOR PLAN  
Ohlson Lavoie Corporation

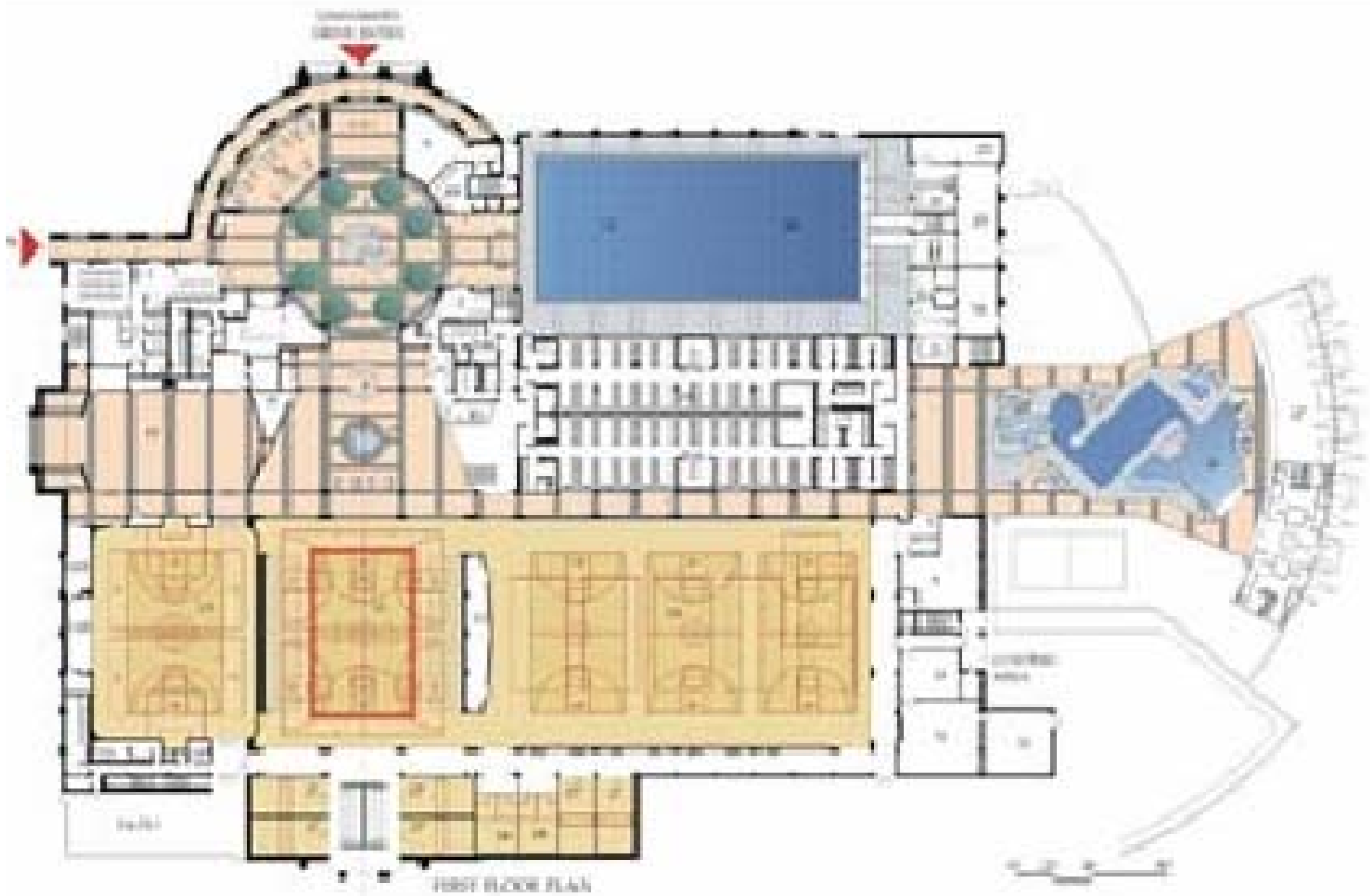
©2000 Northwest Architectural Company, P.S.

LEGEND

- ① STRETCHING
- ② MULTI-PURPOSE ROOM - 1
- ③ FITNESS TESTING/ COUNSELING
- ④ MULTI-PURPOSE ROOM - 2
- ⑤ FITNESS (CARDIOVASCULAR)
- ⑥ TRACK
- ⑦ FITNESS (CIRCUIT TRAINING)
- ⑧ FITNESS/ OBSERVATION
- ⑨ OUTDOOR PROGRAM STORAGE
- ⑩ MECHANICAL/ ELECTRICAL

Courtesy of Ohlson Lavoie









# *Customized Solutions*



# *Customized Solutions*

- Issues in Common
- Developing Strategy
- Responding to Demand





# *Customized Solutions*

## Issues In Common

- Speculative Use Facilities
- Off-Campus Alternatives
- Enterprise Requirements
  - ▶ Capitol Costs
  - ▶ Operating Costs
- Strategic Asset Value



*Student  
Demand is  
Key*



# *Customized Solutions*

## Issues In Common

- Speculative Use Facilities
- Off-Campus Alternatives
- Enterprise Requirements
  - ▶ Capitol Costs
  - ▶ Operating Costs
- Strategic Asset Value

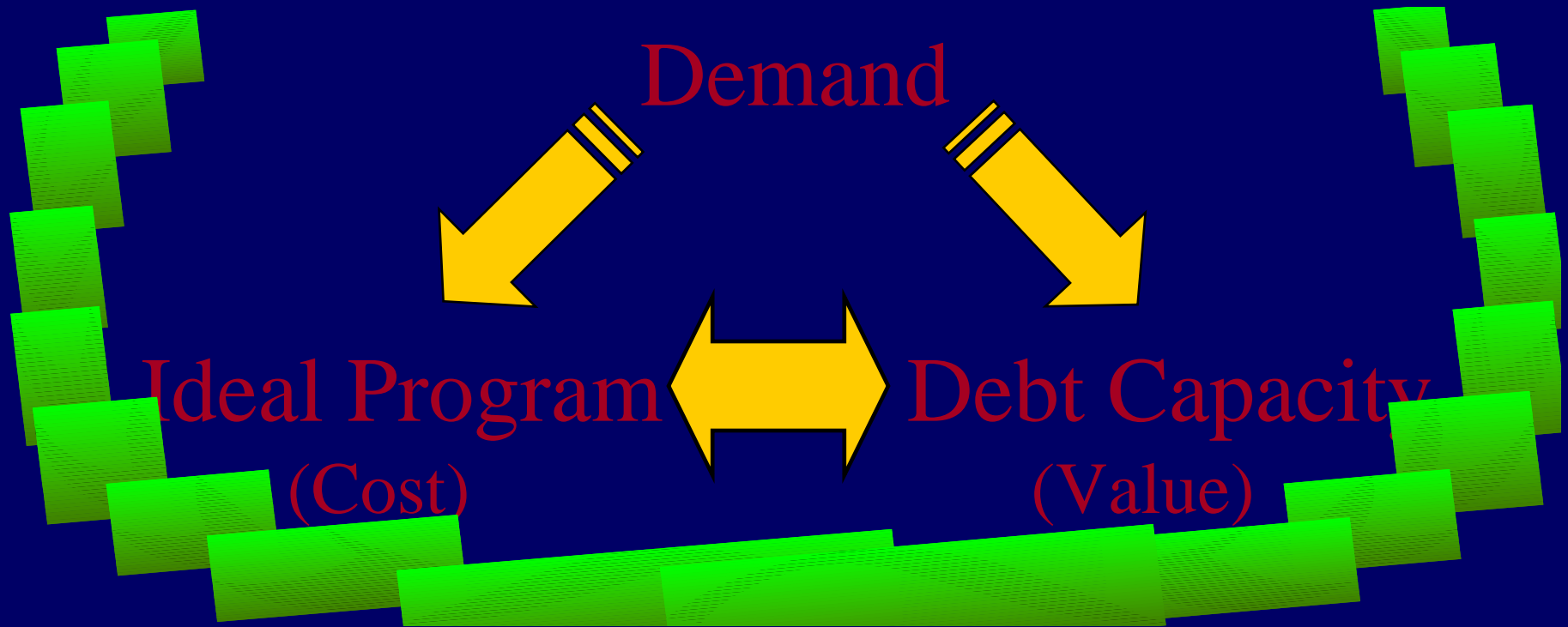


*Institutional  
Mission is  
Key*



# *Customized Solutions*

Issues in Common - Value Management



*Institutional Mission & Values*



# *Customized Solutions*

## Developing Strategy – “Creating The Filter”

- Educational Outcomes
- Enrollment Management
- Campus Community

*How effective are existing facilities?*

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*How well do the facilities need to work?*



# *Customized Solutions*

## Market Analysis Techniques / Tools

1. Demographic Analysis
2. Focus Group Interviews ← Use at least twice!
3. Intercept Interviews
4. Off-Campus Market Analysis
5. Competitive Context Analysis
6. Economic Trend Analysis
7. Student Survey



# Customized Solutions

## Institutional Risk & Funding Strategies

- Debt Underwriting
  - ▬ Debt Coverage Ratio & Collateral
  - ▬ Debt Term & Instrument

NOI = \$2,500,000 ; Int. Rate = 5.5% ; Fees = 80%

### Case #1

Debt Term = 20 yrs.

DCR = 1.25:1

Debt Capacity = \$24,000,000

### Case #1

Debt Term = 30 yrs.

DCR = 1.10:1

Debt Capacity = \$36,300,000

**Student Fee Differential = \$50 => \$70 Per Semester**



# Customized Solutions

## Institutional Risk & Funding Strategies

- Debt Underwriting
  - ▬ Debt Coverage Ratio & Collateral
  - ▬ Debt Term & Instrument

250 Beds; NOI = \$1,000,000 ; Int. Rate = 5.5%

### Case #1

Debt Term = 20 yrs.

DCR = 1.25:1

Debt Capacity = \$8,815,000

Debt Per Bed = \$35,250

### Case #1

Debt Term = 30 yrs.

DCR = 1.10:1

Debt Capacity = \$13,212,000

Debt Per Bed = \$52,800



# *Customized Solutions*

## Institutional Risk & Funding Strategies

- Debt Underwriting
  - Debt Coverage Ratio & Collateral
  - Debt Term & Instrument
- Matching Sources & Uses
  - Auxiliary vs. Academic
  - Project Specific vs. Campus Infrastructure
- Operating Charges
  - Institutional Overhead Allocations
  - Construction Standards
  - Level of Service





# Customized Solutions

## Developing Strategy – Student Housing

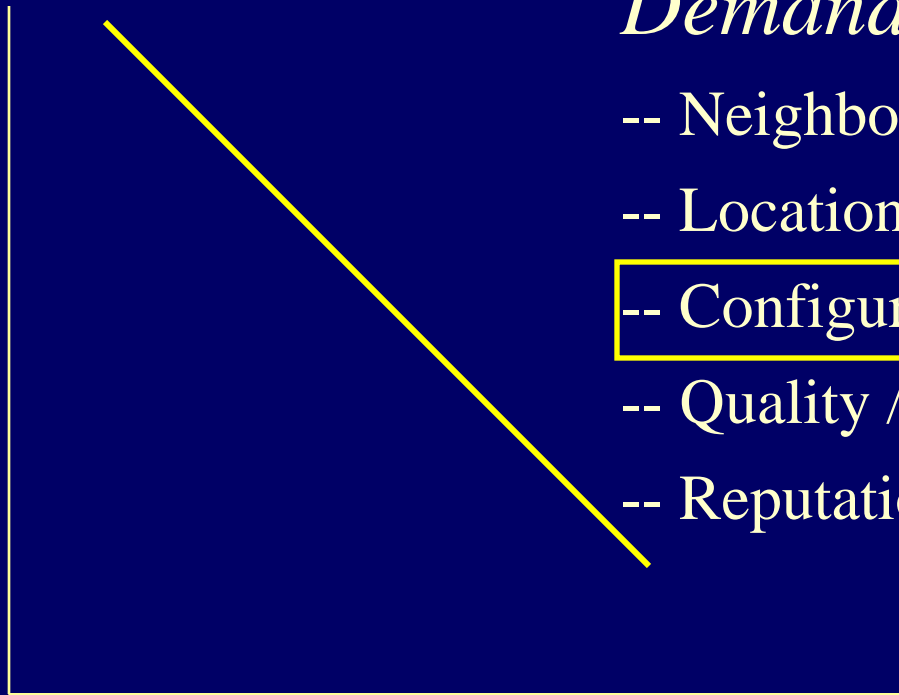
Category	Value of Existing Facilities		
	High	Moderate	Low
<b>I. Educational Outcomes</b>			
Supervision Through Maturity (Fresh / Soph)			
Proximity to Educational Resources (All Students)			
Personal Development (freshman programs)			
Direct Curriculum Enhancement (Fresh / Soph)			
Development Continuum (juniors / Seniors)			
<b>II. Enrollment Management</b>			
Housing Market Supplement (Variable)			
Competitive Amenity (Variable)			
<b>III. Campus / University Community</b>			
“Residential Campus” Designation (Critical Mass)			
Out-of-class Activity (Critical Mass)			
Neighborhood Creation (Critical Mass)			



# *Customized Solutions*

## Responding To Demand - Housing

*P*



*Demand is Product Specific*

-- Neighborhood Attributes

-- Location

-- Configuration / Features / Amenities

-- Quality / Services

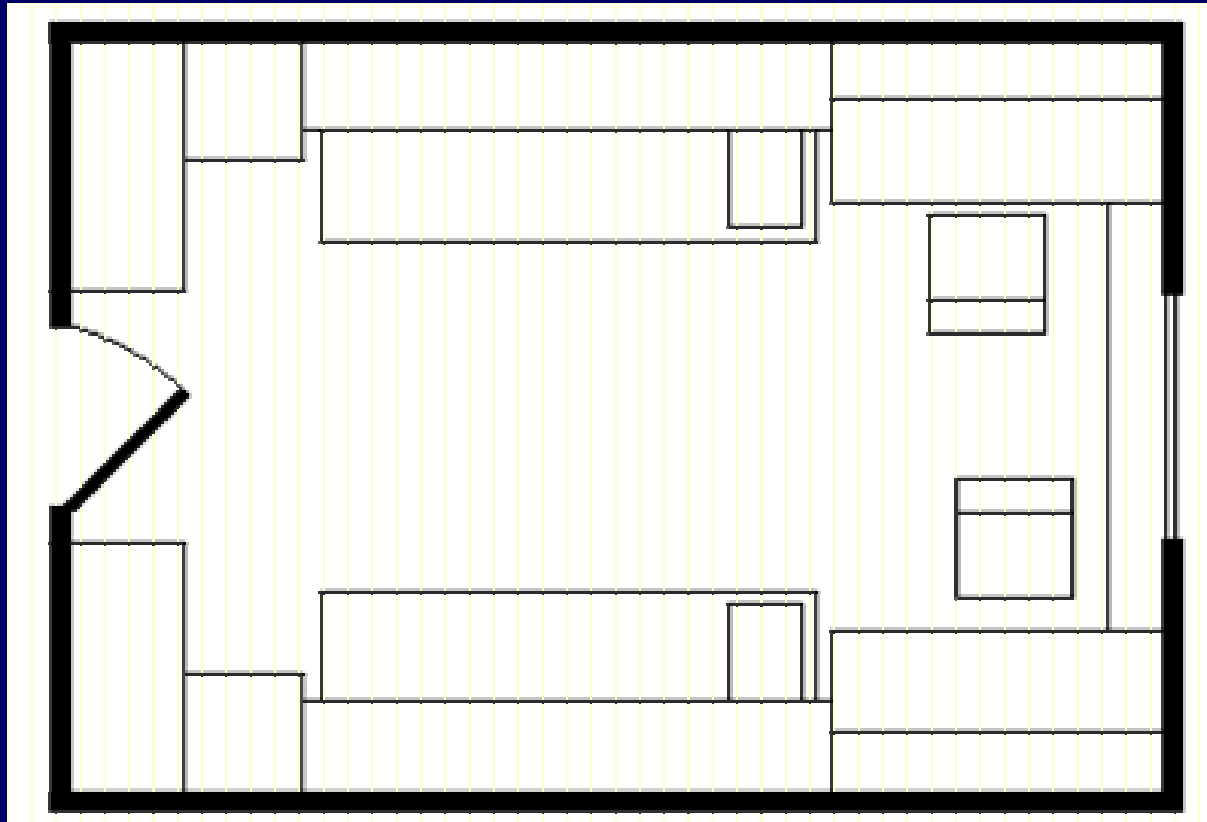
-- Reputation

*Q*



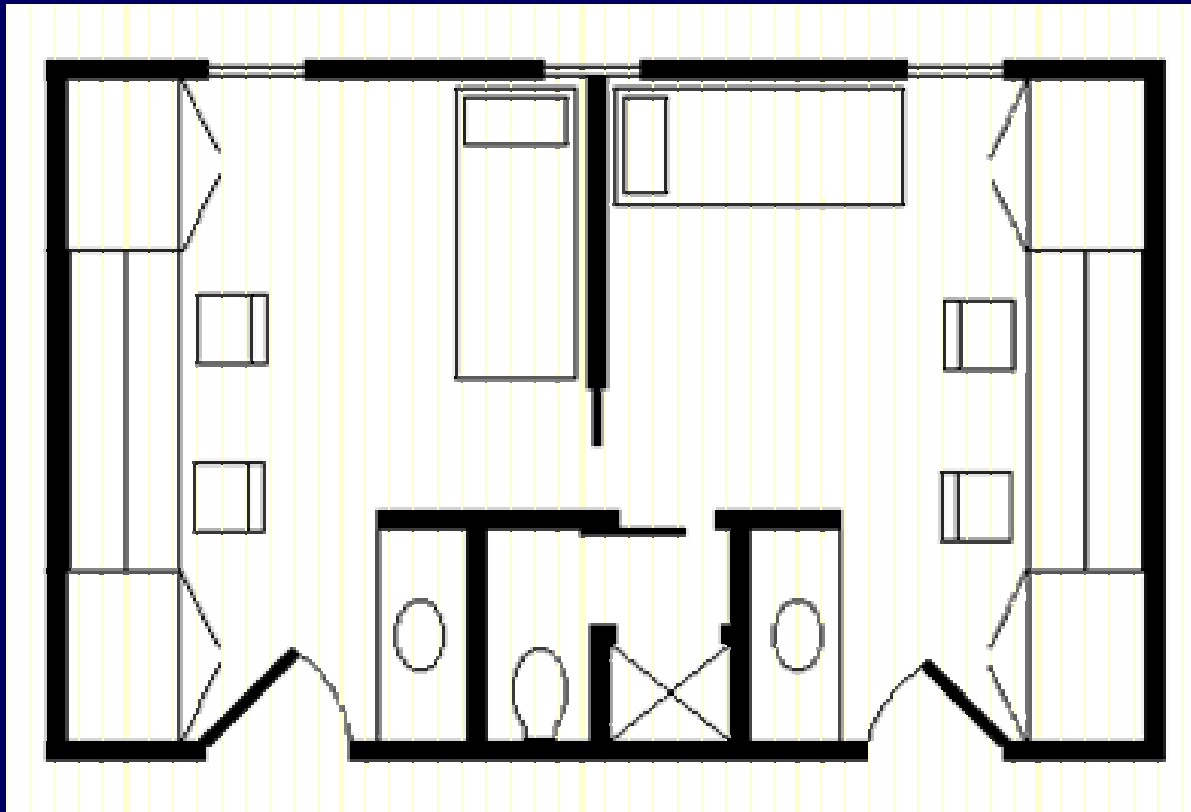
# *Customized Solutions*

## Traditional “Dorm” Room



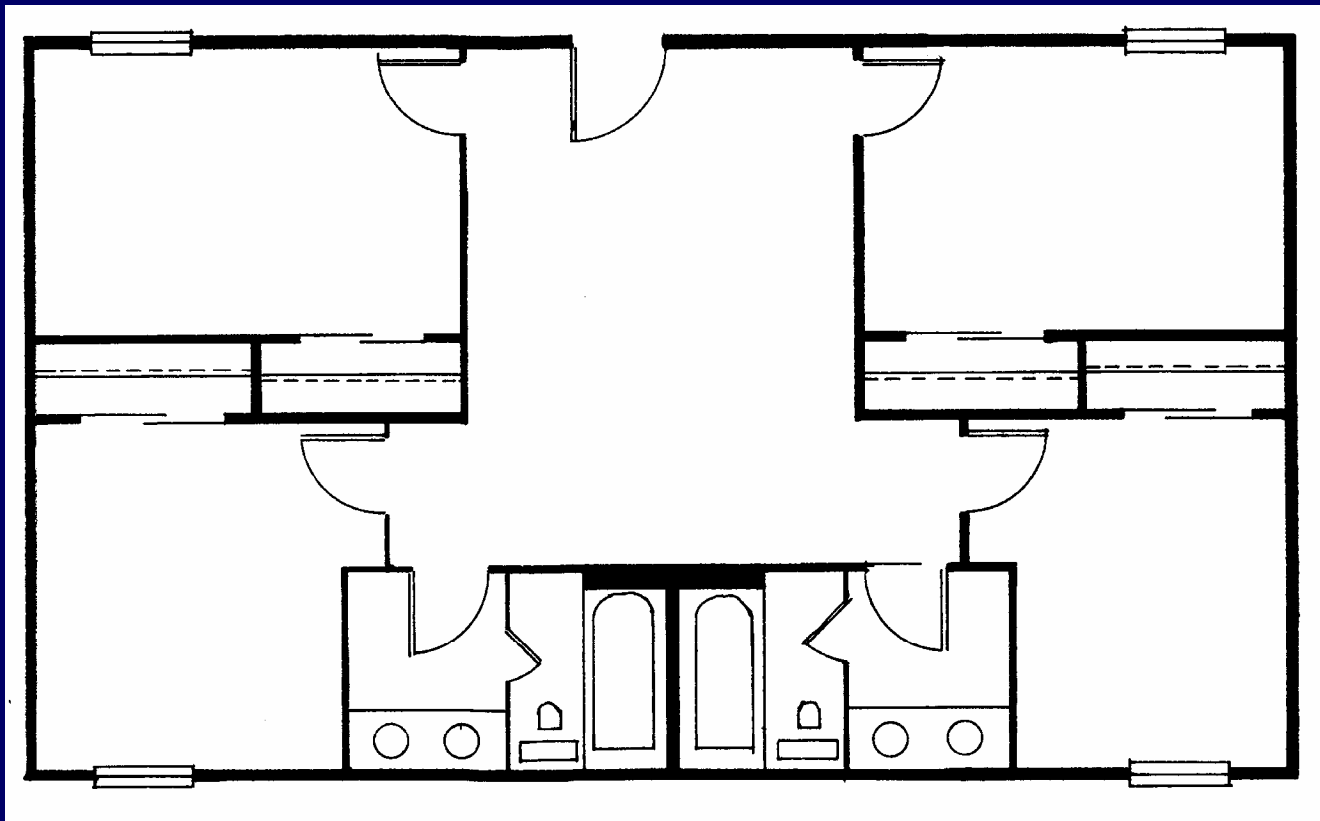
# *Customized Solutions*

## Junior Suite



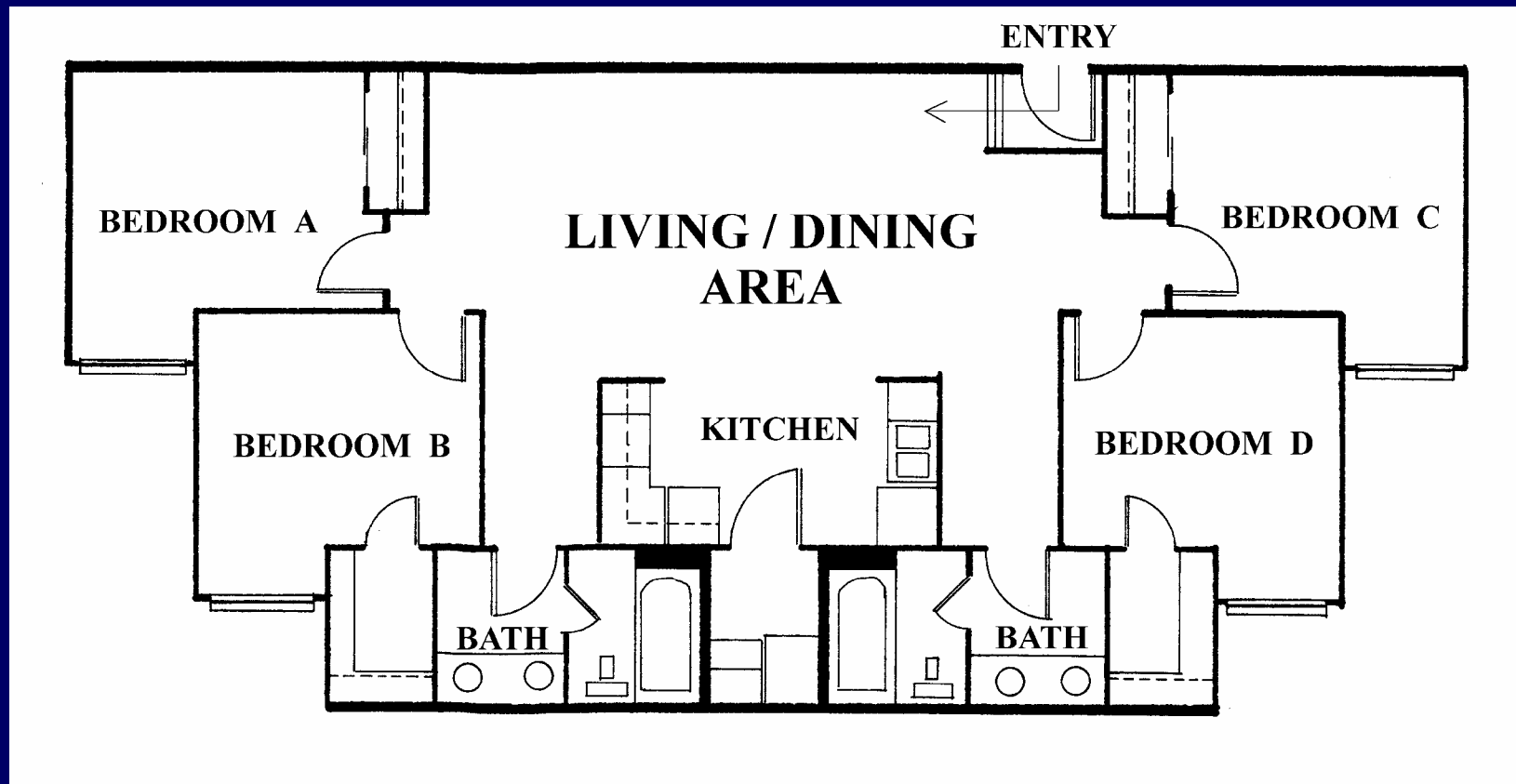
# *Customized Solutions*

## Full Suite



# *Customized Solutions*

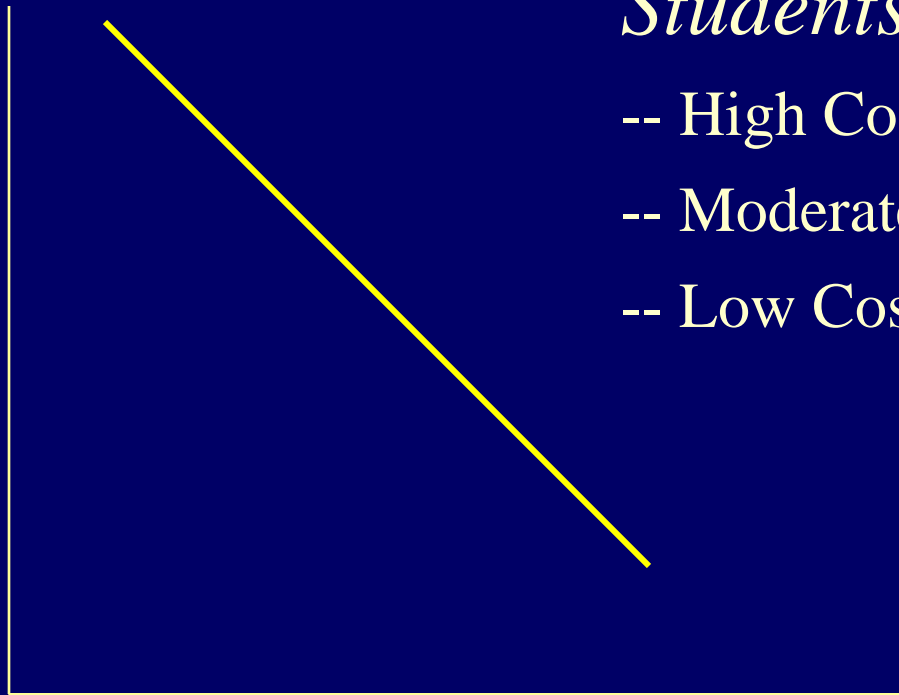
## Apartment



# *Customized Solutions*

## Responding To Demand - Housing

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*Students Understand Value*

- High Cost / High Value
- Moderate Cost / Moderate Value
- Low Cost / Low Value

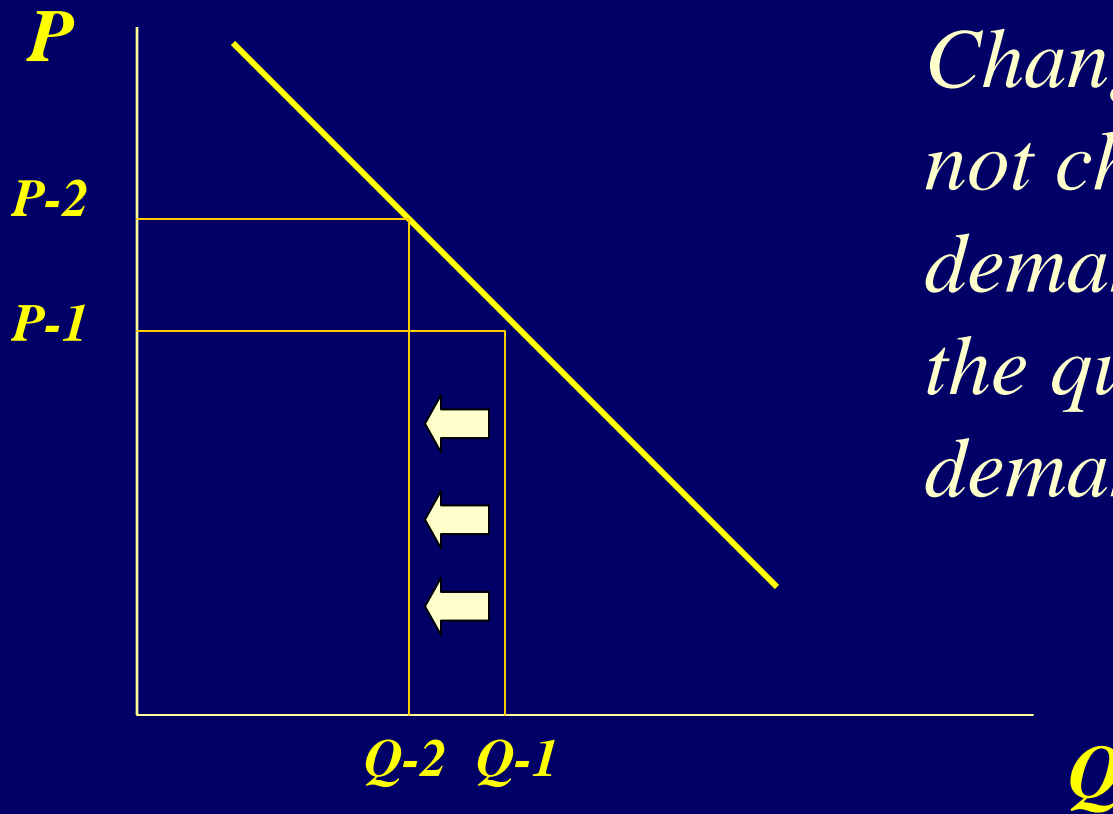
*Q*





# Customized Solutions

## Responding To Demand - Housing

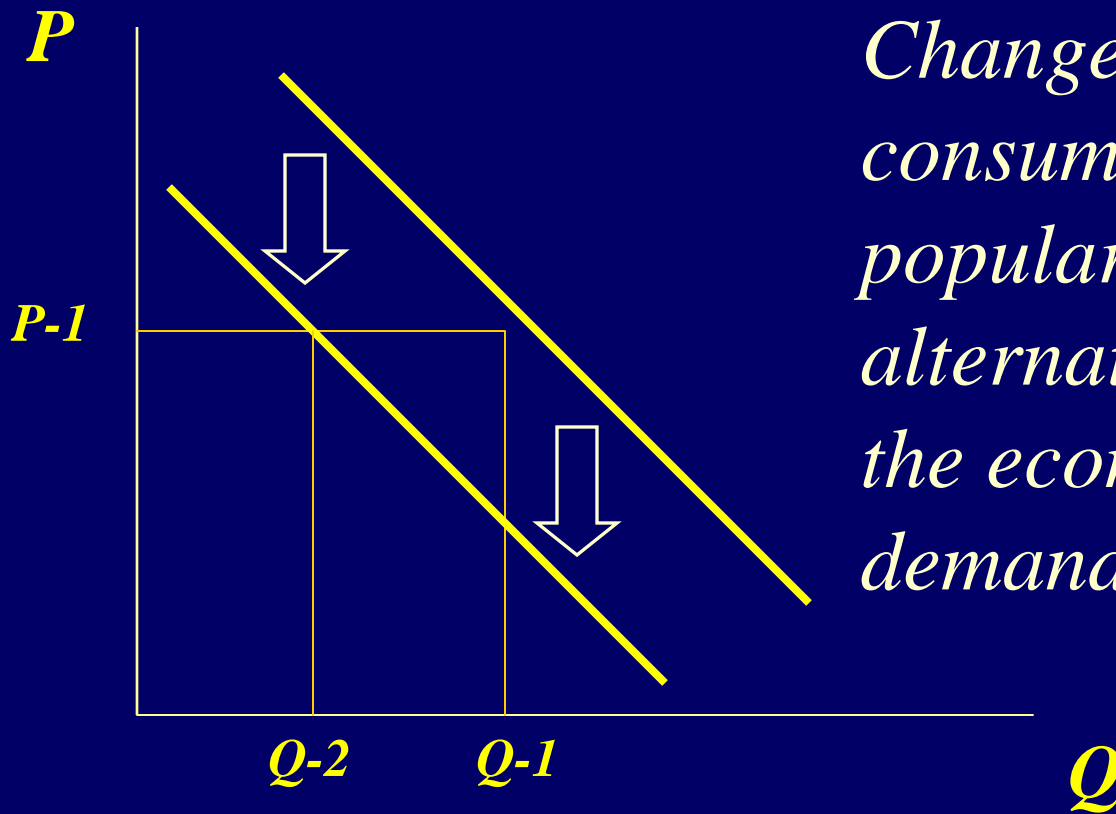


*Changes in price do not change the demand curve, only the quantity demanded.*



# *Customized Solutions*

## Responding To Demand - Housing



*Changes in population, consumer tastes, popular culture, alternative products and the economy shift demand.*



# *Customized Solutions*

## How Much Housing? – Demand-based Programming

<b>Students</b>	<b>Dormitories</b>	<b>Suites</b>	<b>Apartments</b>	<b>Total</b>
<b>Freshmen</b>	<b>783</b>	<b>553</b>	<b>209</b>	<b>1,545</b>
<b>Sophomores</b>	<b>356</b>	<b>636</b>	<b>353</b>	<b>1,345</b>
<b>Juniors</b>	<b>165</b>	<b>349</b>	<b>478</b>	<b>999</b>
<b>Seniors</b>	<b>155</b>	<b>138</b>	<b>588</b>	<b>881</b>
<b>Grads / Profs</b>	<b>257</b>	<b>71</b>	<b>1,295</b>	<b>1,623</b>
<b>Total Demand</b>	<b>1,716</b>	<b>1,747</b>	<b>2,923</b>	<b>6,386</b>
<b>Total Supply</b>	<b>4,936</b>	<b>314</b>	<b>1,424</b>	<b>6,674</b>
<b>Differential</b>	<b>3,220</b>	<b>(1,433)</b>	<b>(1,499)</b>	<b>288</b>



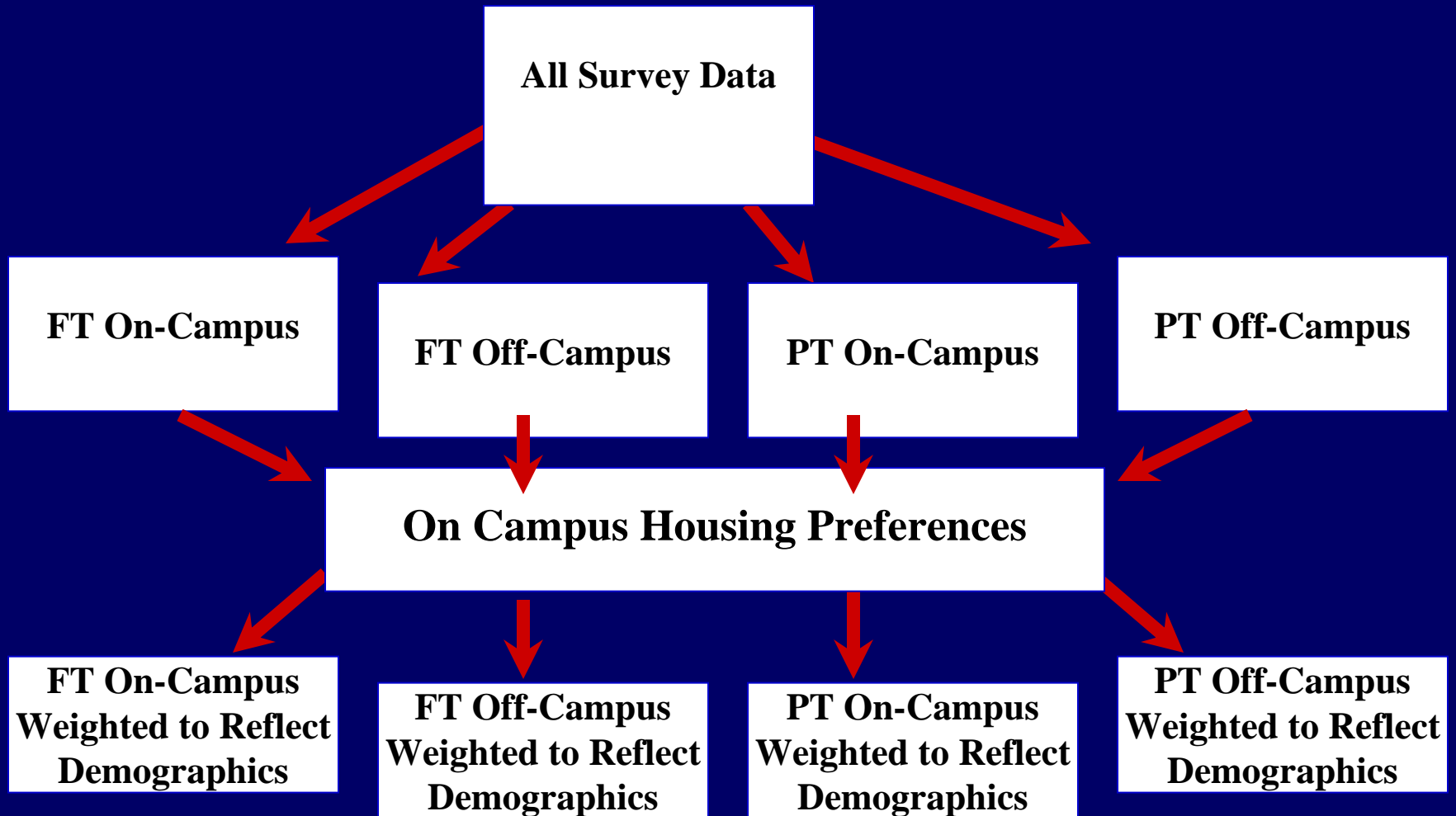
# *Customized Solutions*

## How Much Housing? – Demand-based Programming

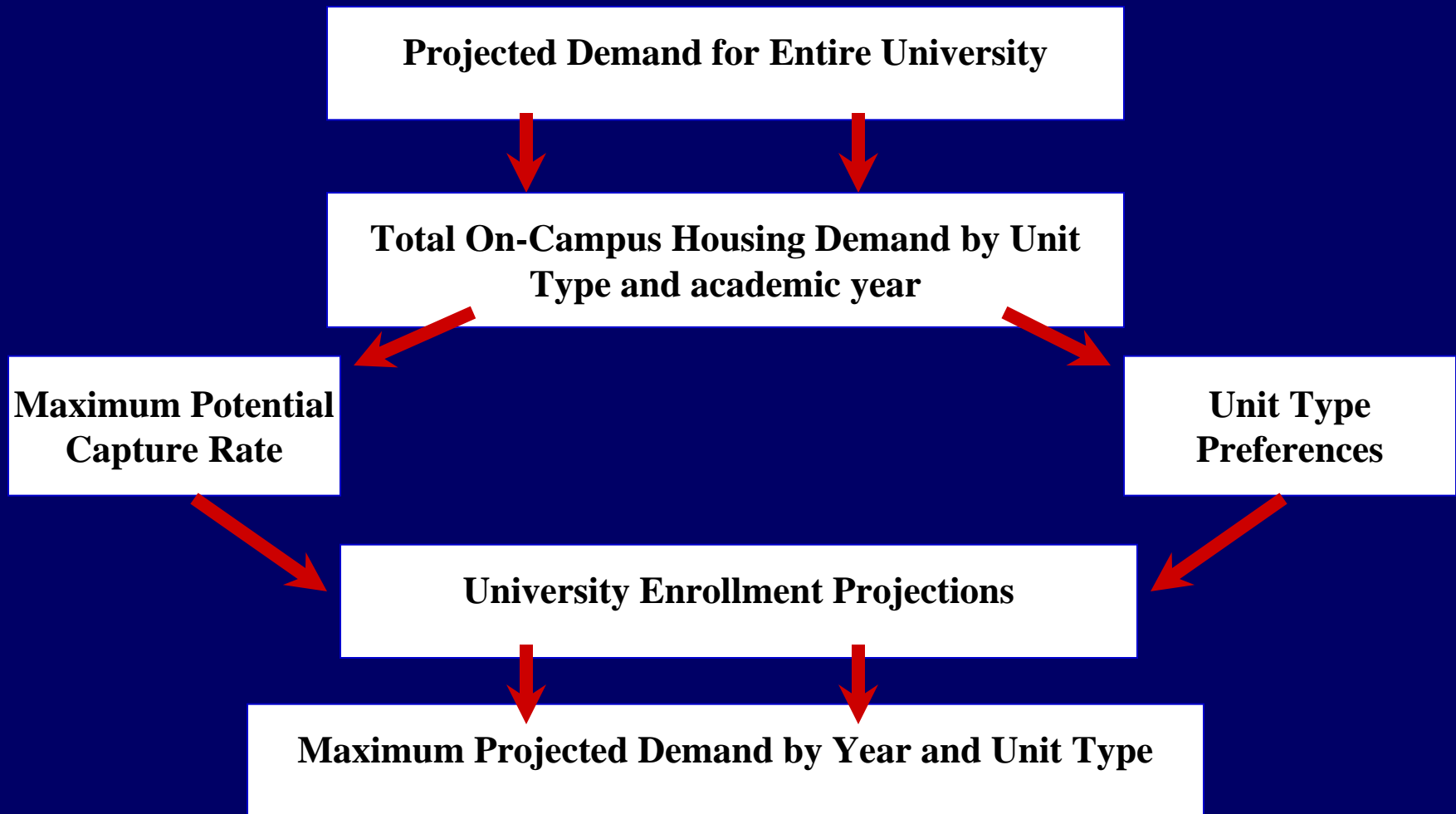
<b>Students</b>	<b>Dormitories</b>	<b>Suites</b>	<b>Apartments</b>	<b>Total</b>
<b>Freshmen</b>	<b>1,066</b>	<b>752</b>	<b>262</b>	<b>2,090</b>
<b>Sophomores</b>	<b>357</b>	<b>635</b>	<b>358</b>	<b>1,350</b>
<b>Juniors</b>	<b>139</b>	<b>296</b>	<b>410</b>	<b>845</b>
<b>Seniors</b>	<b>185</b>	<b>164</b>	<b>711</b>	<b>1,060</b>
<b>Grads / Profs</b>	<b>262</b>	<b>60</b>	<b>1,188</b>	<b>1,500</b>
<b>Total Demand</b>	<b>2,009</b>	<b>1,907</b>	<b>2,929</b>	<b>6,845</b>
<b>Total Supply</b>	<b>965</b>	<b>2,900</b>	<b>920</b>	<b>4,785</b>
<b>Differential</b>	<b>(1,044)</b>	<b>993</b>	<b>(2,009)</b>	<b>(2,060)</b>



# *Customized Solutions*



# *Customized Solutions*





# Customized Solutions

## Developing Strategy – Campus Recreation

Category	Value of Existing Facilities		
	High	Moderate	Low
<b>I. Educational Outcomes</b>			
Stress Mitigation (self-directed fitness)			
Leadership Development (intramurals & clubs)			
Professional Development (student employment)			
Long-term Financial Stability (fundraising)			
<b>II. Enrollment Management</b>			
Recruitment /Retention (campus tour / expectations)			
Retention (consistency / quality of experience)			
<b>III. Campus / University Community</b>			
Central Gathering Place			
Faculty / Staff / Student Interaction			
Alcohol Free Social Opportunities			
Alumni Relations			



# *Customized Solutions*

## Assessing Demand – Campus Recreation

- Facility Concepts
- Planning Guidelines & Rules of Thumb
- Operating Paradigms & Financial Realities
- Student Fees & Referendums



# *Customized Solutions*

## Assessing Demand – Campus Recreation

- Facility Concepts
  - ▶ Fitness Center / Wellness Center
  - ▶ Intramural Building
  - ▶ Comprehensive Recreation Building
  
- Rules of Thumb
  - ▶ 8.5 to 10.5 GSF per Student
    - 1 NASF of weight & fitness per student
    - ½ NASF of group exercise space per student
  - ▶ 1.5 GSF per Additional User (faculty / staff / alumni / etc.)



# *Customized Solutions*

## Assessing Demand – Campus Recreation

- Operating Paradigms & Financial Realities
  - ▶ Traditional / Facility Driven / Program Driven
  - ▶ Program Staff Costs Can Exceed 50% of Operating Costs
  - ▶ Total Operating Costs (before debt service) Can Exceed \$12.5 per SF
  - ▶ Speculative Revenues (voluntary memberships / services / retail & food) Can Exceed 40% of Total Revenues
- Student Fees & Referendums
  - ▶ Fee Levels Have Broken to \$100 per Semester Barrier
  - ▶ Less than 60% of Fees are Initiated Through Referendums



# Customized Solutions

## Developing Strategy – Campus Recreation

Category	Value of Existing Facilities		
	High	Moderate	Low
<b>I. Educational Outcomes</b>			
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Central Gathering Place			
Faculty / Staff / Student Interaction			
Alcohol Free Social Opportunities			
Alumni Relations			



# *Campus Life Integration Issues*

## Quality of Life Infrastructure Distribution Choices

- Distributing Food
- Distributing Retail
- Distributing Recreation (non-sports)
- Distributing Fitness





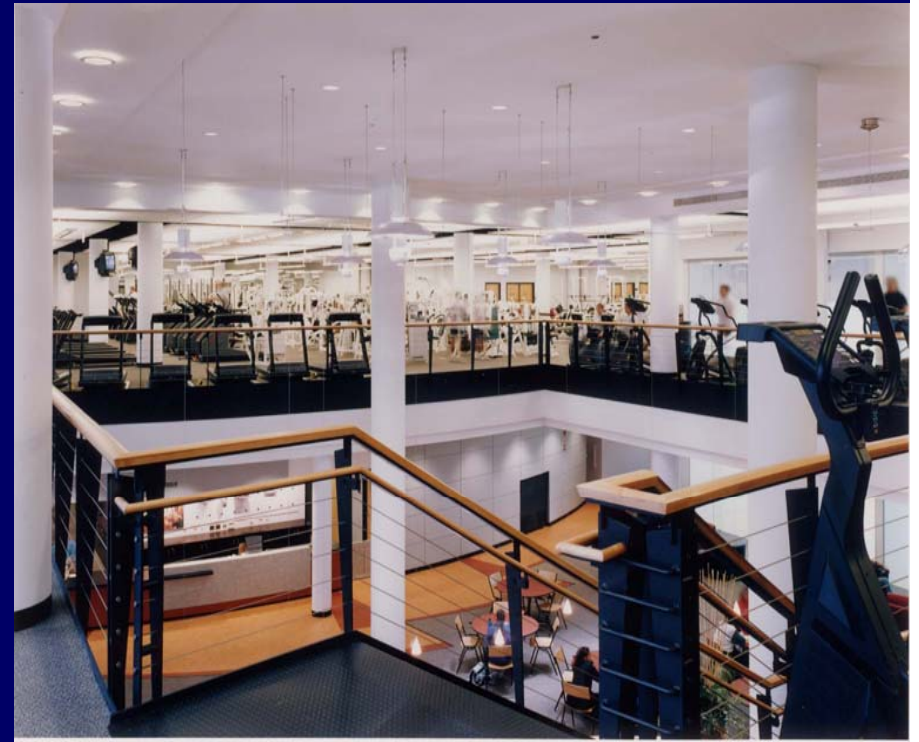
*“The Future is not a result of choices among alternative paths offered by the present, but rather a place that is created - created first in mind and will, created next in activity. The future is not some place we are going to, but one we are creating.”*

*- John Schaar  
Futurist*



# *Theory & Praxis:*

## *Planning Student-Centered Facilities*



Housing & Recreation Centers