UNIVERSITY OF NORTH DAKOTA
Facility and Space Planning Strategies for New Pedagogies, Increased Enrollment, and Improved Student Retention
FROM AN OLD HOSPITAL
TO A NEW BUILDING
TO INTERACTIVE LEARNING
TO INTEGRATED TECHNOLOGY
FROM CLOSED AND FIXED
TO OPEN AND FLEXIBLE
TO WELL-USED & DAY LIT
AGENDA

01 Project Introduction

02 Identifying the Need and Securing the Funds

03 Process of Designing a New Medical Education Building

04 The Building Outcome

05 Implementing the Change
QUESTIONS WE WILL COVER

A. How can you use a new building to transform your program?

B. What are ways to leverage your architect in nontraditional ways?

C. How can a new building attract students and recruit/retain the best faculty?

D. What tools can you use to obtain consensus between multiple university stakeholders?
WHO WE ARE

Randy Eken
Associate Dean for Administration & Finance | UND

Bob Lavey
Partner | Steinberg

Andrea Stalker
Associate | Steinberg
WHO IS UNIVERSITY OF NORTH DAKOTA SCHOOL OF MEDICINE & HEALTH SCIENCES?

• Founded in 1905 as a 2-year school of basic science

• Expansion to an MD degree-granting program was approved in 1973

• First two years of medical education are in Grand Forks, while years three and four are in Bismarck, Fargo, Grand Forks, Minot, and elsewhere throughout ND

• Health Science programs include Physical Therapy; Occupational Therapy; Public Health; Physicians Assistant; Medical Lab Science; Athletic Training
The 8 SMHS programs are located in 6 different buildings dispersed throughout the campus.
IDENTIFYING THE NEED AND SECURING THE FUNDS

- First draft of HWI
- Oil boom officially starts
- SBHE endorses HWI
- ND legislature approves $124M new building
- Space utilization study completed
- Programming & Schematic Design completed
- Construction Documents completed
- Construction substantially complete
- First day of class
HEALTHCARE WORKFORCE INITIATIVE

To address shortages in the North Dakota health care workforce, the State Legislature approved a class size increase for the School of Medicine and Health Sciences. Getting approval takes three years.

- Results in a 30% enrollment growth, implemented in two phases
- ND Legislature approves:
  - Partial implementation in 2011
  - Full implementation in 2013
- 2013 implementation was contingent on completion of a space utilization study.
QUESTION:
Could the existing facilities accommodate the full class size increase?
SPACE UTILIZATION STUDY

Three components to the Utilization Study:

01 Suitability of Existing Facility
02 Room Utilization
03 Room Capacity Rate
SUITABILITY OF EXISTING FACILITY

Areas of Assessment

- Structural Suitability
- Accessibility
- Fire Life Safety
- Building Code
- Mechanical Systems
- Electrical Systems
- Plumbing Systems
- Existing Finishes
- Room Functionality
- Quality of Life
- Ability to Renovate
SPACE UTILIZATION STUDY

CONCLUSION

SMHS’s current facilities:

01 Are well utilized

02 Lack the proper size of spaces to serve their current needs

03 Cannot support a class size increase
DEVELOPMENT OPTIONS

OPTION 1  Small Renovation/Addition  
$38.5M

OPTION 2  Large Renovation/Addition  
$68.3M

OPTION 3  New Building  
$124.0M
To secure the funds for a new medical building, UND presented to the ND state legislature several times over the course of two years:

- **Spring 2012**: Medical School Advisory Council
- **Spring 2012**: State Board of Higher Education
- **Fall 2012**: North Dakota Legislature Interim Health Services Committee
- **Fall 2012**: North Dakota Office of Management & Budget (representing the Governor)
- **January 2013**: ND Legislative Senate Appropriation Committee
- **March 2013**: ND Legislative House Appropriations Committee
- **April 2013**: ND Legislative Conference Committee
- **May 3, 2013**: ND Legislature House and Senate both vote to fund HWI and $124M for new building
## MAKING THE CASE

### BUILDING CONSTRUCTION OPTIONS

<table>
<thead>
<tr>
<th>Expansion of class size</th>
<th>OPTION ONE</th>
<th>OPTION TWO</th>
<th>OPTION THREE</th>
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<table>
<thead>
<tr>
<th>Program Consolidation</th>
<th>OPTION ONE</th>
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<table>
<thead>
<tr>
<th>Value Over Time</th>
<th>OPTION ONE</th>
<th>OPTION TWO</th>
<th>OPTION THREE</th>
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<table>
<thead>
<tr>
<th>Income Opportunity</th>
<th>OPTION ONE</th>
<th>OPTION TWO</th>
<th>OPTION THREE</th>
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</thead>
<tbody>
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<td></td>
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</table>
## MAKING THE CASE

### INCREMENTAL COST OF BUILDING OPTIONS*

<table>
<thead>
<tr>
<th></th>
<th>OPTION TWO</th>
<th>OPTION THREE</th>
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<tbody>
<tr>
<td><strong>Construction Cost</strong></td>
<td>$68.3</td>
<td>$124.0</td>
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<tr>
<td><strong>Income Opportunity</strong></td>
<td>$0</td>
<td>($36.9)</td>
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<tr>
<td><strong>Operations and Maintenance Savings</strong></td>
<td>$0</td>
<td>($18.0)</td>
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<tr>
<td><strong>Net Cost</strong></td>
<td>$68.3</td>
<td>$69.1</td>
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</table>

*DIN MILLIONS, 40-YEAR HORIZON.

DIFFERENCE $0.8
THE RESULT
NOW WHAT?
PROCESS OF DESIGNING A NEW MEDICAL EDUCATION BUILDING

2007
- First draft of HWI

2008
- Oil boom officially starts

2009
- SBHE endorses HWI

2010
- Space utilization study completed

2011
- ND legislature approves modified HWI and space utilization study
- ND legislature approves $124M new building

2012
- Programming & Schematic Design completed

2013
- Construction Documents completed

2014
- Construction substantially complete

2015
- First day of class
rethink everything
PROCESS BY THE NUMBERS

Completed programming, design, and construction documents in one year.

178 SMSH users participated
12 workshops
35 days of meetings
PROCESS TOOLS

Methods to collect information:

- Facility Tours / Case Studies
- Workshop Discussions
- Town Hall / Forums
- Online Survey
- Visual Listening Exercise
- User Review Meetings
- Pick Your Space Exercise
BUILDING DESIGN: THE OUTCOME

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2015
- Construction substantially complete

2016

2017
- First day of class
PROJECT HIGHLIGHTS

BREAK-OUT SPACE | COLLABORATIVE HIGH-TECH CLASSROOMS | CONFERENCING | DAYLIGHTING DESIGN | DIGITAL-BIOHAZARD LAB | FACULTY & STAFF COLLABORATION SPACE | FLEXIBLE MEDIA TECHNOLOGY INTEGRATION | FOOD SERVICE | GROSS ANATOMY LAB | INTERPROFESSIONAL LEARNING COMMUNITIES | LEARNING HALL | LIBRARY/KNOWLEDGE RESOURCE MANAGEMENT | MAINSTREET | MULTI-PURPOSE LAB | RESEARCH CENTERS | SIMULATION CENTER
PATIENT CENTERED LEARNING

- MD Program Curriculum Model
  - 7 to 8 students per group
  - Problem based learning
  - Currently meeting in small, individual rooms called PCLs
SMALL GROUP LEARNING

NEW & IMPROVED PCL SPACE

• Up 14 people for interprofessional use

• Shared space for all programs/students
HI-TECH CLASSROOMS

REPLACING THE LECTURE HALL

PCL group at each table
LIBRARY TO KNOWLEDGE RESOURCE MANAGEMENT

• No bookstacks in the new SMHS library

• “Librarians” are dispersed throughout the building, to provide easy and immediate access and interaction with faculty and students.

• Library staff are co-located with IT staff, who also share the main help desk.

• Library is open and merges with “public main street”
01 Defining the Community
02 Providing the Space
SMHS ENROLLMENT

School of Medicine
BS Basic Sciences Graduates
MLS Medical Lab Sciences
PA Physicians Assistant
PH Public Health
PT Physical Therapy
OT Occupational Therapy
SM Sports Medicine

ENROLLMENT TOTAL
831

School of Medicine: MD 176, MLS 80, PA 80, PH 60, PT 162, OT 150, SM 60
Health Sciences: BS 63

= 10 Students
CURRENT DEPARTMENTAL SILOS

<table>
<thead>
<tr>
<th>School of Medicine</th>
<th>Health Sciences</th>
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</thead>
<tbody>
<tr>
<td>MD 176</td>
<td>OT 150</td>
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<tr>
<td>BS 63</td>
<td>SM 60</td>
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<tr>
<td>MLS 80</td>
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<tr>
<td>PA 80</td>
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<tr>
<td>PH 60</td>
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<tr>
<td>PT 162</td>
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INTER-PROFESSIONAL COMMUNITIES

eight learning communities divided into four groups
INTER-PROFESSIONAL COMMUNITIES
INTER-PROFESSIONAL COMMUNITIES

A
B

LEARNING COMMUNITY A
100 STUDENTS

LEARNING COMMUNITY B
100 STUDENTS

SHARED SPACE
INTER-PROFESSIONAL COMMUNITIES
TYPES OF SPACE

GROUP STUDY

PRIVATE STUDY

COLLABORATION

EXAM ROOM

LOUNGE
IMPLEMENTING THE CHANGE

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- 2016: First day of class
OPERATIONAL CHANGES IN THE NEW BUILDING

Learning Communities: Challenges Before the New Building Opens

01 Status and governance in the UND Student Organizations

02 Orientation for the students

03 How learning communities will be formed

04 Breadth and focus of the interprofessional learning issues for the learning communities
OPERATIONAL CHANGES IN THE NEW BUILDING

The design of the new SMHS building is very different from the existing one. As we prepare for occupancy in 2016, we are dealing with the following operational changes:

• Researchers within SMHS are meeting to plan how to utilize the open labs.
• Groups have been formed to decide how best to teach in the new active learning classrooms.
• Conversations around classroom scheduling have led to greater dialogue between departments.
The Transition Champion Team will support the SMHS throughout the transition from the current building to the new building.

The team has been tasked with the following activities:

- Meet 5 times between June 2015 and August 2016 to discuss transition events and needs.
- Facilitate 3 workshops on conducting new ways of working, learning and researching.
- Facilitate 2 town hall meetings.
- Help develop a transition kit, detailing information necessary to prepare for the move.
- Help develop a user guide/welcome kit, detailing information about the new building after the move.
- Assist in various ways in the Grand Opening in fall 2016.
OPERATIONAL FUNDING

Funding for a new building is not the only requirement to have the HWI plan work. Increased state funding is necessary to support the annual 205 increase in students and Operational support for the HWI has been appropriated by the ND Legislature as illustrated below:

<table>
<thead>
<tr>
<th>Biennial Period</th>
<th>Total (Base without HWI)</th>
<th>HWI Impact</th>
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<tbody>
<tr>
<td>2009-11</td>
<td>$41,115,407</td>
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<tr>
<td>2011-13</td>
<td>$47,847,971</td>
<td>$1,800,000</td>
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<tr>
<td>2013-15</td>
<td>$60,177,396</td>
<td>$11,189,951</td>
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<tr>
<td>2015-17</td>
<td>$76,705,246</td>
<td>$22,276,535</td>
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<tr>
<td>Increase from 2009-11</td>
<td>$35,589,839</td>
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</tr>
<tr>
<td>Percent increase from 2009-11</td>
<td>87%</td>
<td>-</td>
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<tr>
<td>2017-19</td>
<td>??</td>
<td>$26,632,193</td>
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The funding provides for hiring an estimated 150 faculty and staff, in addition to 51 resident positions. Operating budgets have also been increased to handle the increased enrollments.
TRADELINE THREE

01 Do Your Homework
   • Have the data to make your case

02 Be Inclusive
   • It helps build consensus
   • It generates innovative ideas

03 When you can, rethink EVERYTHING.
Q&A
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Contact:
Bob Lavey, AIA, LEED AP
[E] blavey@steinberg.us.com