Office of Planning and Budgets
Facilities Planning and Space Management

Financial Administrators Workshop
Barbara Kranz and Eric Boatman
June 6, 2013
AGENDA

• Introduction
• Organization
• Overview
• Space Management
• Facilities Planning
• Summary
• Q&A
TODAY’S GOAL

• Expand knowledge and understanding of facilities planning and space management principles, policies and procedures
QUESTIONS

- What space issues do I need to consider for a faculty hire, a new course, an administrative realignment?
- Where are we headed in 3-5-10 years?
- What delegated authority resides at the MAU level?
- Is there a university space policy?
- What is the MSU Space Inventory?
- What is the procedure for requesting new space?
- What is the procedure for requesting renovation?
- How long can a renovation take?
- What is the plan for funding the renovation?
Contrary to popular belief, we’re not the space police
FACILITIES PLANNING & SPACE MANAGEMENT

- **Team**
  - **Barbara Kranz**, Director
  - **Eric Boatman**, Assistant Director
  - **Lisa Sudia**, Space Management Coordinator
  - **Wendy Bedolla**, Space Management Coordinator (open position)
  - **Pamela Bach**, Data Resource Analyst
  - **Nestor DeOcampo**, Data Resource Analyst
  - **Andrew Midgley**, Data Resource Analyst
  - **Paula Palmiter**, Facility Coordinator
  - **Information Technologist** – open position
RESPONSIBILITIES

- Barrier Free Planning
- Budget Planning and Management
- Capital Planning
- Instructional Space Planning
- Long Range Strategic Planning
- Programming and Space Planning
- Project Coordination
- Reporting and Analysis
- Space Inventory
- Space Metrics
- Space Planning and Management
WHY IMPORTANT

- Support University mission
- Bolder by Design
- Align space resources with strategic vision
- AAU Standings
- Strengthen Research
- Stewardship of space resources
- 2\textsuperscript{nd} largest university asset
- Accountability to internal and external constituents
- Fiscal stewardship
- Energy and environmental stewardship
STRATEGIC CONTEXT

Bolder by Design
MSU President Lou Anna K. Simon rolled out her update to the MSU Strategic Plan, adding a new strategic imperative:
• Advance our high performance culture

Prior articulated imperatives include:
• Enhance the student experience
• Enrich community, economic and family life
• Expand international reach
• Increase research opportunities
• Strengthen stewardship
INTEGRATED PLANNING

- ACADEMIC PLANNING
- FINANCIAL PLANNING
- FACILITIES PLANNING
- SPACE MANAGEMENT
SPACE MANAGEMENT

- SPACE POLICY
- SPACE INVENTORY
- METRICS AND UTILIZATION
- ANALYSIS REPORTING
SPACE POLICY

• MSU Space Policy
  – All MSU land, facilities, and buildings belong to the University as a whole and are subject to assignment and reassignment to meet the overall needs and best interest of the institution
  – Executive Committee for Buildings, Facilities and Space
  – Deans delegated authority

• Space Policy can be found at: http://opb.msu.edu/facilities
COMMITTEES

• Executive Committee for Buildings, Facilities and Space
• Health Colleges
• Food Safety & Toxicology Building
• Giltner Hall
• Residential & Hospitality Services
• University Classroom Planning Group
SPACE INVENTORY SYSTEM

- Basic system tracks all buildings and rooms including
  - MAU/Department
  - Room Use
  - Room Function
  - Occupant

- Follows the National Center for Education Statistics - Postsecondary Education Facilities Classification Manual

- Used for planning, management, reporting
  - MAU’s, Departments, University
  - Reporting such as NSF Survey, Federal Indirect Cost Recovery rate negotiation
# FICM CLASSIFICATION

## Function Codes and Room Use

<table>
<thead>
<tr>
<th>PCS FUNCTION CODE</th>
<th>PCS FUNCTION TITLE</th>
<th>ROOM USE CATEGORY</th>
<th>ROOM USE CATEGORY DESCRIPTION</th>
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<tbody>
<tr>
<td>1.0</td>
<td>INSTRUCTION</td>
<td>000</td>
<td>UNASSIGNABLE SPACE</td>
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<td>11.0</td>
<td>HOSPITALS</td>
<td>200</td>
<td>LABORATORY FACILITIES</td>
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<tr>
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<td>OFFICE FACILITIES</td>
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<td>13.0</td>
<td>UNOCCUPIED SPACE</td>
<td>400</td>
<td>STUDY FACILITIES</td>
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<tr>
<td>2.0</td>
<td>ORGANIZED RESEARCH</td>
<td>500</td>
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<td>HEALTH CARE FACILITIES</td>
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<td>PUBLIC SERVICE</td>
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<td>RESIDENTIAL FACILITIES</td>
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<td>DEPARTMENTAL ADMINISTRATION</td>
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<td></td>
</tr>
<tr>
<td>4.3</td>
<td>MUSEUMS AND GALLERIES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.4</td>
<td>OTHER ACADEMIC SUPPORT</td>
<td></td>
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</tr>
<tr>
<td>5.0</td>
<td>STUDENT SERVICES</td>
<td></td>
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<td>6.1</td>
<td>GENERAL (NON-ACADEMIC) ADMINISTRATION</td>
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<td>6.2</td>
<td>PR DEVELOPMENT/ALUMNI AFFAIRS</td>
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<td>6.3</td>
<td>SPONSORED PROJECTS ADMINISTRATION</td>
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<td>7.0</td>
<td>PLANT OPS AND MAINTENANCE</td>
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</tr>
<tr>
<td>9.0</td>
<td>AUXILIARY ENTERPRISES</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MICHIGAN STATE UNIVERSITY

SPACE DISTRIBUTION - 19 MILLION NET SQ FT

**Distribution by Room Use**

- **Study Facilities**: 500,765 sq ft (3%)
- **Special Use Facilities**: 1,680,302 sq ft (9%)
- **Laboratory Facilities**: 1,639,991 sq ft (9%)
- **Office Facilities**: 2,229,431 sq ft (12%)
- **Residential Facilities**: 2,815,681 sq ft (15%)
- **Support Facilities**: 1,236,559 sq ft (6%)
- **Unassignable Space**: 6,130,339 sq ft (32%)
- **Not Categorized**: 546,390 sq ft (3%)
- **Classroom Facilities**: 578,075 sq ft (3%)
- **General Use Facilities**: 1,387,890 sq ft (7%)
- **Health Care Facilities**: 183,036 sq ft (1%)

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SPARTAN SPACE

• Implementation of a web based application and reporting tool to interface with our FAMIS application
• Allows Colleges and Departments to update information on their assigned rooms online
• Expected to significantly improve the efficiency of the space management system
• Reduce administrative time for data updates
• More timely data and reporting capability
### SPARTAN SPACE

<table>
<thead>
<tr>
<th>Site/Block FL/Room</th>
<th>Allocation</th>
<th>SQFT</th>
<th>Allocation Created</th>
<th>Actions</th>
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<td>01-1173-SPH</td>
<td>901-1101</td>
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<tr>
<td>01-1173-SPH</td>
<td>901-1101</td>
<td>109</td>
<td>10-FEB-09</td>
<td>Update Allocation</td>
</tr>
</tbody>
</table>

![Diagram of room allocation process](image)

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SPACE METRIC INITIATIVE

- Initial focus on research laboratory space
- Expands space data to include
  - Room occupant(s)
  - Occupant information
    - Appointment type
    - Research expenditures
    - Grants submitted/pending, awarded
- Data obtained from various sources
  - MAU’s/Departments
  - Human Resources
  - Contract and Grant Administration

<table>
<thead>
<tr>
<th>EMPLOYEE NAME</th>
<th>RESEARCHER A</th>
</tr>
</thead>
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<tr>
<td>TITLE</td>
<td>FAC W/TENURE</td>
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<tr>
<td>TOTAL SF OF SPACE</td>
<td>874</td>
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<tr>
<td>PI SHARE OF AWARD</td>
<td>$1,300,701</td>
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<tr>
<td>ACTUAL EXP SHARE 08_09</td>
<td>$181,541</td>
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<tr>
<td>ACTUAL EXP SHARE 09_10</td>
<td>$206,069</td>
</tr>
<tr>
<td>ACTUAL EXP SHARE 10_11</td>
<td>$256,899</td>
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<tr>
<td>ACTUAL EXP SHARE AVERAGE</td>
<td>$214,836</td>
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<td>EXP SHARE PER SF</td>
<td>$246</td>
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<tr>
<td>APPS NOT YET AWARDED</td>
<td>18</td>
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<tr>
<td>PI TOTAL REQUESTED AMT IF AWARDED</td>
<td>$2,543,251</td>
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</table>
SPACE METRICS

- Assignable Square Feet/Full-Time Equivalent
- Research Expenditures/Assignable Square Feet
- University, College, Department, and Individual Levels
RESEARCH DOLLARS PER SQUARE FOOT

Research Dollars per Sq Ft of Research Lab Space

- Total Grants/Research Laboratories and Lab Support
- Sponsored Research Exp/Research Laboratories and Lab Support

Beginning of Metrics Initiative

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ANNUALLY REPORTED SPACE METRICS

Research & Indirect Cost Recovery per Square Foot of Research Space

- Total Indirect Cost Recovery/Research Space
ANNUALLY REPORTED SPACE METRICS

Research & Indirect Cost Recovery per Square Foot of Office Space

- Total Indirect Cost Recovery/Office Space
- Sponsored Research Exp (ICR)/Office Space

<table>
<thead>
<tr>
<th>Department</th>
<th>Total Indirect Cost</th>
<th>Sponsored Research Exp</th>
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<tr>
<td>Dean</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>CompSci</td>
<td>$7</td>
<td>$0</td>
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<tr>
<td>Mech Eng</td>
<td>$205</td>
<td>$743</td>
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<td>Div Eng±</td>
<td>$0</td>
<td>$69</td>
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<tr>
<td>Co Ma StC</td>
<td>$235</td>
<td>$97</td>
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<td>MS CEGR</td>
<td>$530</td>
<td>$70</td>
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<td>Civ EE</td>
<td>$313</td>
<td>$0</td>
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<tr>
<td>Div Eng±</td>
<td>$0</td>
<td>$0</td>
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<tr>
<td>Elec CE</td>
<td>$178</td>
<td>$853</td>
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</table>
OFFICE & RESEARCH SPACE BY COLLEGE

Square Foot Per FTE of Office and Research Space Per College

<table>
<thead>
<tr>
<th>College</th>
<th>Office and Office Support Square Feet/FTEs</th>
<th>Research Labs &amp; Lab Support Square Feet/FTEs</th>
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<tbody>
<tr>
<td>Univ</td>
<td>135</td>
<td>73</td>
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<tr>
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<td>175</td>
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<tr>
<td>NS</td>
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<td>207</td>
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<tr>
<td>JMC</td>
<td>256</td>
<td>0</td>
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<tr>
<td>SS</td>
<td>165</td>
<td>23</td>
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<td>CAS</td>
<td>200</td>
<td>44</td>
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UNIVERSITY THREE-YEAR METRICS

Research Expenditures per Square Foot of Research Lab and Lab Support Space
2009-2010, 2010-2011, and 2011-2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Sponsored Research Exp ICR / Research Space</th>
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</thead>
<tbody>
<tr>
<td>2009-10</td>
<td>$223</td>
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<tr>
<td>2010-11</td>
<td>$250</td>
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<tr>
<td>2011-12</td>
<td>$261</td>
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</table>

Indirect Cost Recovery per Square Foot of Research Lab and Lab Support Space
2009-2010, 2010-2011, and 2011-2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Indirect Cost Recovery / Research Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-10</td>
<td>$52</td>
</tr>
<tr>
<td>2010-11</td>
<td>$58</td>
</tr>
<tr>
<td>2011-12</td>
<td>$60</td>
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</tbody>
</table>
SPACE METRICS

- Liberal Arts and Instructional-Focused Colleges
  - Publications
  - Performances
  - Enrollment
  - Course Load
RESEARCH LAB SPACE ALLOCATION
SPACE UTILIZATION MODEL

- Integrated View of Space Utilization
- Four Interrelated Components
- Each Evaluated Quantitatively or Qualitatively
- Metrics Provide Quantitative Measure for Activity
ANALYSIS & REPORTING

- Space Audits
- National Science Foundation (NSF) Survey
- Higher Education Facilities Management Association (HEFMA) Survey
- Instructional Space Utilization
- Space Metrics
- Indirect Cost Recovery Rate Negotiation
- Space Requests
### EXTERNAL BENCHMARKING – 2011 NSF SURVEY

<table>
<thead>
<tr>
<th>Institution</th>
<th>Research Expenditures 2011</th>
<th>Research Space 2011</th>
<th>Res $/SqFt</th>
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<tbody>
<tr>
<td>U. MI – Ann Arbor</td>
<td>$1,213,090</td>
<td>1,793</td>
<td>$677</td>
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<td>U. IA</td>
<td>$433,088</td>
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<td>$656</td>
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<td>OH State U.</td>
<td>$794,023</td>
<td>1,447</td>
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<td>Purdue U.</td>
<td>$520,001</td>
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<tr>
<td>U. WI Madison</td>
<td>$1,022,723</td>
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<tr>
<td>IN U. Bloomington</td>
<td>$160,038</td>
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<td>PA State U.</td>
<td>$776,945</td>
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<td>U. MN, Twin Cities</td>
<td>$824,489</td>
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<tr>
<td>MI State U.</td>
<td>$423,766</td>
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<tr>
<td>U. IL Urbana-Champaign</td>
<td>$522,769</td>
<td>4,631</td>
<td>$113</td>
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<tr>
<td>U. NE Lincoln</td>
<td>$220,141</td>
<td>2,224</td>
<td>$99</td>
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</table>
CLASSROOM UTILIZATION

- MSU currently serves over 48,000 students with a variety of teaching and learning environments, from informal areas to classrooms and laboratories

- There are approximately 330 rooms in the University Classroom pool

- University classrooms are centrally scheduled for courses and events

- Utilization is based on a 50 hour week; 10 class periods per day/5 days per week

The instructional space accounts for what percentage of the overall university square footage?
CLASSROOM UTILIZATION

University Classroom Course and Event Utilization

Univ Classroom Use by Class Period

Univ Classroom Use by Day
CLASSLAB UTILIZATION

- There are approximately 200 rooms in the University Classlab pool
- Classlab utilization for 2011 was 31%
- Classlabs encompass a variety of instructional spaces such as:
  - Music Practice rooms
  - Chemistry Wet Bench Teaching Labs
  - Art Studios
FACILITIES PLANNING

Annual Planning

Project Approval & Implementation

Space Planning and Programming

Short and Long-term Capital Planning

Facilities Planning
ANNUAL PLANNING PROCESS

- Annual Budget Planning – Programs, People, Space
- Fall Planning Alterations & Improvements Requests
- Fall Planning Alterations & Improvements Space Requests
- Technology and Learning Environment Requests
- Just in Time (JIT)/Utilities/Maintenance Repair and Replacement (MRR) Planning
- Capital Outlay 5-Year Plan Request
ALTERATIONS & IMPROVEMENTS & SPACE

• Requests align with Bolder by Design
• Requests align with Academic Plan and Budget
• Project rationale, work scope, funding request
  – If approved unit and FPSM work on initiating project, including establishment of a plant account
• Requests submitted are for upcoming fiscal year funding
SPACE PLANNING AND PROGRAMMING

• Ranges from small scale requests/renovations to large scale capital projects
• Alignment with Academic Plan/Rationale
• Functional Requirements
• Spatial Requirements
• Work scope, estimate and budget development if applicable
ANNUAL MULTI-YEAR PLANNING

• Capital Outlay
• MAU Faculty Hires
• Instructional Space Improvements
• Barrier Free Planning
• Programmatic Initiatives
LONG-RANGE PLANNING

• Larger-scale Academic Projects
• Supporting future University Growth Areas and Initiatives
• Strategic Funding
• Capital Renewal Planning – Program and Infrastructure
LONG-RANGE PLANNING

- Slow the Growth by Improving Utilization of Existing Space
- Reduce Future Demand on Utility Infrastructure
- Generate Revenue for New Building Needs
- Respond to State Funding Trend
- Drive Long-Range Cultural Change
PROJECT APPROVAL AND IMPLEMENTATION

- Alterations and Improvements
  - >$20,000

- Board of Trustee Process
  - >$1.0 Million

- Plant Cash Accounts
SERVICE REQUEST PROCESS

- **Unit Identifies A & I**
- **Unit Submits Service Request for Estimate**
- **Infrastructure Planning and Facilities (IPF) Work Order to Provide Requested Estimate**
  - **IF ESTIMATE < $20,000**
    - Unit can approve, sign and submit service request
  - **IF ESTIMATE > $20,000**
    - Authorization to Proceed must be obtained from OPB/FPSM
      - **STEP 1.** Dept. Chair or Director must approve and sign service request
      - **STEP 2.** Dean or Designated representative must approve & sign service request
      - **STEP 3.** OPB/Facilities Planning and Space Management
        - Review Criteria:
          1. Space Assignment
          2. Work Scope and Estimate
          3. Space Utilization and Rationale
          4. Funding Plan
          5. University Planning

- **Additional Planning Needed/Required**
- **Further Review Or Alternate Options Or Not Approved**

- **IPF: Assign to appropriate service provider**
  - **IF $1.0M**
    - BOT Process
  - **IF $1.0M**
    - *$100,000 Plant cash

Michigan State University Office of Planning and Budgets
FUNDING AND FINANCE STRATEGIES

Funding Strategies

• Major Administrative Unit
• Private Donor
• Central Administration
• State Appropriation
• Federal or State Grant

Finance Strategies

• Bonds/Debt Service
• Cash
### FUNDING EXAMPLES

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>MAU(s)</th>
<th>PRIVATE DONOR</th>
<th>CENTRAL ADMINISTRATION</th>
<th>STATE APPROPRIATION</th>
<th>FEDERAL OR STATE GRANT</th>
<th>AUXILLARY</th>
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<td>55%</td>
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<tr>
<td>LINTON HALL OFFICE UPGRADES</td>
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<td></td>
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<td>BIO ENGINEERING</td>
<td></td>
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<td>50%</td>
<td>50%</td>
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<tr>
<td>BOTT NURSING BUILDING</td>
<td>70%</td>
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<td></td>
<td></td>
<td>30%</td>
</tr>
<tr>
<td>MCDONEL HALL / RIVER TRAIL ENGAGEMENT CENTER</td>
<td></td>
<td></td>
<td>60%</td>
<td></td>
<td></td>
<td>40%</td>
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</tbody>
</table>
SUMMARY

• University mission and annual academic planning guides space and facilities planning
• Deans delegated authority to reassign space within MAU to meet programmatic needs
• Early identification of space and/or alterations and improvements to meet programmatic commitments improves time to implementation
• MSU Space Inventory data informs the space metrics, federal IDC rate negotiation, and space planning and management
• Space metrics as a tool to assist in space allocation decisions
• Awareness of the Alterations and Improvements process – approvals, funding, planning and implementation
• Space is the 2\textsuperscript{nd} largest campus asset – impacting planning and budget decisions
QUESTIONS

• What space issues do I need to consider for a faculty hire, a new course, an administrative realignment?
• What delegated authority resides at the MAU level?
• Where can you find the university space policy?
• Where can you find the MSU Space Inventory?
• What is the procedure for requesting new space?
• What is the procedure for requesting renovation?
• How long can a renovation take?
• What is the plan for funding the renovation?
QUESTIONS?