August 29, 2019

ANNUAL CAPITAL PLANNING LIST

Appended is the draft Annual Capital Planning List that will be reviewed at the work session on Thursday September 5. The list reflects projects with an estimated cost/budget $1M or greater or that has a material change to the landscape or footprint change. The information is organized by major areas of focus: Academic, Student Activities, Health Sciences, Infrastructure and IT, and Auxiliary. Within those categories the projects are grouped as follows: In Construction/Substantially Complete or In Planning, Future Capital Project Priorities, and In Discussion/Future.

A review of this list is also in anticipation of our upcoming submission to the State of Michigan for the university's 5-Year Capital Plan and Capital Outlay project funding request. While we have not yet received instructions from the State, the 5-Year Capital Plan and Capital Outlay request is typically due by November 1 and requires BOT action, which occurs at the October BOT public meeting.

The State requires the university to include projects that we are proceeding with or anticipate undertaking over the next five years (reference Future Capital Project Priorities), regardless of funding source. To optimize flexibility the university provides a more significant potential list of priority projects, hence the list appears greater then the number of projects that would move forward in the five-year time-frame.
### Project Name - ACADEMIC

In Construction or Substantially Complete and In Planning includes projects $1M or greater. Items in red are pending BOT authorization September 2019.

**Estimated Cost FY20**

#### In Construction or Substantially Complete

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration Building – Ground Floor – Convert former Data Center to Office Space</td>
<td>$1.35M</td>
</tr>
<tr>
<td>Biological Safety Level-3 Research Laboratory (Ph. 1 of 2)</td>
<td>$3.5M</td>
</tr>
<tr>
<td>Eli Broad College of Business - Addition No. 2 - Pavilion</td>
<td>$62.0M</td>
</tr>
<tr>
<td>Food Science – Fruit and Vegetable Laboratory Renovation</td>
<td>$3.5M</td>
</tr>
<tr>
<td>ICECUBE Laboratory Renovations at Biomedical Physical Sciences</td>
<td>$1.0M</td>
</tr>
<tr>
<td>Interdisciplinary Science and Technology Building (Strategic Academic Development Initiative)</td>
<td>$100.0M</td>
</tr>
<tr>
<td>Music Building – Addition – Program Expansion and Needs</td>
<td>$41.5M**</td>
</tr>
<tr>
<td>STEMM Teaching and Learning Facility and Former Shaw Lane Power Plant Renovation (Strategic Academic Development Initiative)</td>
<td>$110.1M**</td>
</tr>
<tr>
<td>Veterinary Medical Center – Alterations to Second floor Locker Rooms</td>
<td>$1.6M</td>
</tr>
<tr>
<td>Wonders Hall – Teaching, Learning, Student Support Renovation</td>
<td>$18.0M</td>
</tr>
</tbody>
</table>

#### In Planning

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Estimated Cost</th>
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</thead>
<tbody>
<tr>
<td>Administration Building – Renovations to the Third Floor (selected area)</td>
<td>$3.1M - $3.7M</td>
</tr>
<tr>
<td>Business College Complex - Eppley Center - Student Support, Capital Renewal, and Building Envelope (revised planning request)</td>
<td>$18.0M - $21.0M</td>
</tr>
<tr>
<td>Kellogg Biological Station – Bird Sanctuary Renovation</td>
<td>$2.5 – 3.5M</td>
</tr>
<tr>
<td>Swine Teaching and Research Addition (Footprint change)</td>
<td>$0.5 – 0.8M</td>
</tr>
</tbody>
</table>

** Board Approved Scope and/or Budget change during this time period

*General Fund includes central and/or unit contribution(s)
**Future Capital Project Priorities**

- **Bioeconomy – Plant Science Facilities ($140.9M - $150.9M)**
  - **Greenhouses** – Renovation of Existing and Addition – Research Expansion and Learning. (Recommended SFY21 Capital Outlay request)
    - Plant Biology Building – Comprehensive Renovation
      - Estimated Cost FY20:
        - $20.9M
      - Status: X X

- **Biomedical Frontier**
  - Biomedical Animal Resources – Provision for Large Animal ($15.7M - 21.9M)
    - Housing and Surgery
      - Estimated Cost FY20:
        - $11.3M - $16.5M
      - Status: X
    - Imaging
      - Estimated Cost FY20:
        - $4.4M - $5.4M
      - Status: X
  - Clinical Center A-Wing – Renovate for Research Expansion
    - Estimated Cost FY20:
      - $65.0M - $75.0M
    - Status: X X
  - Clinical Center B-Wing – Renovate for Research Expansion & Learning
    - Estimated Cost FY20:
      - $15.0M - $20.0M
    - Status: X X
  - Research Laboratory Renovation – Various (STEM and ISTB Related Backfill)
    - Estimated Cost FY20:
      - $15.0M - $18.0M
    - Status: X

- **BSL-3 - Research Expansion**
  - BSL-3 Multi-Species Flexible Housing/Procedure Space (Ph. 2)
    - Estimated Cost FY20:
      - $9.5M - $10.5M
    - Status: X

- **Detroit Initiative - MSU Places of Learning**
  - Estimated Cost FY20: TBD
    - Status: X X X

- **Engineering - New Construction/Addition/Renovation**
  - Estimated Cost FY20: TBD
    - Status: X X X X

- **Learning Spaces**
  - Learning Space Improvements – Annual Investment for Updates and Improvements
    - (5-Year need, $12.0 annually)
      - Estimated Cost FY20:
        - $60.0M
    - Status: X
  - Library Improvements – Learning and Collections Support
    - Estimated Cost FY20:
      - $5M - $8M
    - Status: X X

- **Music Building – Renovation of Existing for Improved Program Support**
  - Estimated Cost FY20:
    - $9.4 – 33.3M
  - Status: X X

- **Old Botany – Comprehensive Renovation**
  - Estimated Cost FY20:
    - $9.6M - $10.6M
  - Status: X X

*General Fund includes central and/or unit contribution(s)
## In Discussion/Future

### Instruction and Curriculum Focused
- McDonel Hall Former Cafeteria – Renovate Portion of Dining Area and Accessibility: TBD
- Bio-Engineering Facility (IQ) - Build-out of 3rd and 4th Floor - Bio Design: TBD
- College of Engineering - Student Activities Building: $3.5M - $4.5M

### Research Focused
- Food Science - Repurpose Closed Cold Rooms: $1.0M - $1.6M
- Life Science Building - Research Labs: $1.6M - $2.0M
- Natural Sciences Building Comprehensive Renovation: $115.0M - $120.0M

### Land Management – Biological Stations and Outreach
- Dairy Facility - New: TBD
- Judging Pavilion – Roof Over Outdoor Arena: TBD

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## Project Name - ACADEMIC

In Construction or Substantially Complete and In Planning includes projects $1M or greater. Items in red are pending BOT authorization September 2019.

### Estimated Cost FY20

<table>
<thead>
<tr>
<th>Auxiliary</th>
<th>Capital Outlay State</th>
<th>General Fund</th>
<th>Gifts</th>
<th>Grants</th>
<th>University</th>
<th>P &amp; I Industry</th>
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</tbody>
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### In Discussion/Future - cont’d

**Current or Potential Release Space/Site – Renovations Prior to Occupancy**

• Anthony Hall 3rd Floor Unfinished Attic – Additional Student Study Space

$0.8M - $1.2M

| General Fund includes central and/or unit contribution(s) |

### Acquisition of Private Property - Placeholder

• Consolidation
• Growth
## Project Name - STUDENT ACTIVITES

In Construction or Substantially Complete and In Planning includes projects $1M or greater. Items in red are pending BOT authorization September 2019.

### In Construction or Substantially Complete

- None

### In Planning

- IM West Outdoor Pool Replacement (on-hold planning completed) $8.5M
- IM West Outdoor Pool Enclosure $7.0M - $9.0M
- Outdoor Seasonal Ice Rink $2.3M - $3.0M
- Sexual Assault Nurse Examiner (SANE) - Renovation at Student Services Building $1.0M - $1.5M

### Future Capital Project Priorities

- Healthy Campus – Recreation, Fitness, Sport
  - IM Circle – Convert former Pool to Multi-Purpose Space $10.0M - $11.0M
  - IM Fields – Service Road Synthetic Turf $9.5M - $10.5M
- Student Services Building – Renovate for Student Support $8.8M - $35.5M

### In Discussion/Future

- Center for Gender in Global Context (GenCen) - Expansion
- Health Promotion Program and Food Bank - Relocation
- Multicultural Center
- Swimming Pools – Indoor
  - IM Circle
  - Jenison

*General Fund includes central and/or unit contribution(s)*
### In Construction or Substantially Complete
- None

### In Planning
- None

### Board Lease Authorization
- Grand Rapids Innovation Park - Long-Term Lease of Space in the Medical Innovation Building, Construction and Sublease of Radiopharmacy - College of Human Medicine
- TBD

### Future Capital Project Priorities
- MSU Health Care - Medical Services Building
- TBD

### In Discussion/Future
- College of Nursing Skills/Simulation Learning Space
- Medical Education Facility - Human Medicine and Osteopathic Medicine
- Human Performance and Wellness (joint with Intercollegiate Athletics)

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### In Construction or Substantially Complete

- **Utilities – Power Plant Modernization**
  - Reverse Osmosis System $1.0M
- **2016-2017 Major Maintenance Projects**
  - Student Services Building – Replace Windows and Air Handling Units $7.3M
- **T.B. Simon Power Plant – Reconfigure House Service and Install Spare Breakers**
- **Utilities – Power Plant Modernization**
  - Reciprocating Internal Combustion Engines (RICE) $47.0M
- **Water Distribution – Campus Water System Improvements** $23.0M

### In Planning

- **2017-2018 Major Maintenance Projects**
  - Veterinary Medical Center – Replace HVAC1 & 2 $1.6M - $2.0M
  - Biochemistry – Replace Power Service – Capital Renewal $1.3M - $1.4M
  - Library - West Wing HVAC Zone Level Upgrade $1.5M - $2.0M
  - T.B. Simon Power Plant – Site Modifications
    - Security fence/cameras TBD
- **Utilities – Power Plant Modernization**
  - Medium Pressure Steam Boiler TBD
  - Replace U4 Cyclone Refractory $1.0M - $1.5M

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Project Name - INFRASTRUCTURE

In Construction or Substantially Complete and In Planning includes projects $1M or greater. Items in red are pending BOT authorization September 2019.

### Future Capital Project Priorities

- **Barrier-Free Accessibility Projects**
  - Single Occupant/ADA Restrooms - High Priority Buildings TBD
  - Capital Renewal (annual request) TBD $35.0M
  - 600 Crescent Road - Modifications to 1st and 2nd floors for IT Services space consolidation TBD
  - Farm Lane Infrastructure and Mobility Upgrades including Bridge Replacement TBD $35.0M - $40.0M
  - Life Science Building (A & B) HVAC replacement and related (phased approach) TBD
  - Service Road and Service/Bogue Intersection Reconstruction TBD $6.0M - $7.0M
  - 20MW Solar Array Installation (material change to the landscape and long-term lease) NA
  - Transportation Services and Mobility Research Center TBD $20.0M - $22.0M
- **Utilities (5-year) – Power Plant Modernization**
  - Battery Energy Storage System TBD
  - Combustion Turbine Rotor and Engine - Replace Unit 6 TBD
  - Electrical Centrifugal Chillers – 8,400 tons TBD
  - Shared Natural Gas Pipeline TBD
- **In Discussion/Future HVAC Replacements & Related Work (alpha order/next 10 years)**
  - Center for Integrated Plant Systems TBD $16.7M
  - Engineering Building TBD $36.6M
  - IM Sports West TBD $17.4M
  - International Center Academic TBD $7.0M
  - Library TBD $23.0M
  - Plant Biology TBD $36.6M
  - Veterinary Medical Center TBD $52.3M

*General Fund includes central and/or unit contribution(s)
In Discussion/Future - cont’d

**Capital Renewal**

- Capital Renewal - Annual

**Energy Conservation Measures**

- 2021 - 2022 - Annual

**Utilities**

- Utility Extension and Replacement - Annual

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**Project Name - AUXILIARY**  
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### Estimated Cost FY20

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<td>Cowles House – Accessibility and Interior Renovations</td>
<td>$6.0M</td>
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<tr>
<td>Duffy Daugherty – SAAC – Alterations to Skandalaris Football Offices and the Demmer Family Hall of History</td>
<td>$6.7M</td>
</tr>
<tr>
<td>Hubbard Hall – Exterior Masonry Project Phase 4 of 4</td>
<td>$2.7M</td>
</tr>
<tr>
<td>Munn Ice Arena – Expansion</td>
<td>$18.8M</td>
</tr>
<tr>
<td>Hidden Lake Gardens – Observation Tower and Canopy Walk</td>
<td>$2.2M</td>
</tr>
<tr>
<td>Owen Graduate Hall – Visiting Scholars Wing</td>
<td>$1.5M - $2.0M</td>
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### In Construction or Substantially Complete
- Cowles House – Accessibility and Interior Renovations
- Duffy Daugherty – SAAC – Alterations to Skandalaris Football Offices and the Demmer Family Hall of History
- Hubbard Hall – Exterior Masonry Project Phase 4 of 4
- Munn Ice Arena – Expansion

### In Planning
- Hidden Lake Gardens – Observation Tower and Canopy Walk
- Owen Graduate Hall – Visiting Scholars Wing

### Future Capital Project Priorities
- MSU Chapel - Columbarium and Accessibility

**DRAFT**
### In Discussion/Future

#### Parking
- Lot 11 (Administration/Library) $1.3M
- Lot 38 (Erickson) $1.5M
- Lot 46 (Integrative Plant Science) $1.2M
- Lot 62 (North side of Spartan Stadium) $1.4M
- Parking Ramp #2 (Bessey/Computer Center) Replacement TBD

#### Auxiliary Enterprises/Residential & Hospitality Services
- RHS Major Building Renovations
  - Campbell Hall – Renovation $17.3M
  - Forest Akers Clubhouse East TBD
  - Spartan Village (old) - Demolition $10.5M
  - Williams Hall – Renovation $12.6M
  - Yakeley Gilchrist Hall – Renovation $18.8M
- RHS Selected Building Renovations
  - Holmes Hall - Life Safety $6.3M
  - Holmes Dining – Renovation $6.3M
  - Kellogg Center - Roof (phased) $1.4M
  - McDonel Hall - Life Safety $4.6M
- Elevators - Capital Renewal
  - Case Hall - Elevators $1.2M
  - McDonel Hall - Passenger Elevators $1.3M

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**In Discussion/Future - cont’d**

**Auxiliary Enterprises/Residential & Hospitality Services - cont’d**

- **Retail Food Service**
  - Biomedical Discovery Neighborhood - Food Service
  - Veterinary Medical Center Complex - Food Service

- **Potential Academic Project Coordination Opportunity and/or Impact in RHS**
  - McDonel Hall Former Cafeteria – Renovate Portion of Dining Area and Accessibility

- **Potential Redevelopment**
  - International Center - Spartan Experience Center
  - Spartan Village Property - Redevelopment

*General Fund includes central and/or unit contribution(s)*
### In Discussion/Future - cont’d

#### Intercollegiate Athletics

- **Golf Course - Short Game Practice Area** $0.85M
- **Spartan Stadium Improvements**
  - Accessibility Upgrades $3.6M
  - Aisle Upgrades $4.6M
  - East Concourse Improvements $1.4M
  - East Concourse Improvements #2 $15.1M
  - West Concourse Improvements $1.4M
- **Student Athlete Housing/Training Table** TBD

**Healthy Campus Initiative**

- Multi-purpose Arena – University and Athletic Programming (includes wrestling training) TBD
  - IM Fields – Cherry Lane Natural Turf TBD
  - IM West – Ph.2 TBD
  - Jenison Field House – Ph.1 TBD

#### Healthy Campus Initiative - Potential Projects – Monitor for Coordination Opportunity

- **Indoor Track Facility**
- **Outdoor Track Relocation**
- **Jenison - Fieldhouse Arena Conversion (Ph.2)**
- **Football Practice Field - Grass Field/Tennis Court Relocation**

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