CONSTRUCTION PLANNING AND PROGRESS MEETING
BROUGHT TO YOU BY INFRASTRUCTURE PLANNING AND FACILITIES
Thursday, March 12, 2015
Twitter hashtag #msuconstruction
PLEASE FILL OUT A SURVEY!

They are available at each table

• Please fill out your surveys and return them to the front table before you leave.
• We want your thoughts and suggestions about how you feel Construction Junction went, and what we could do to improve.
• Thank you in advance!
Today’s agenda

- MSU Board of Trustees updates
- 2014-15 campus snow communications
- Cold weather water intrusion events
- Faculty readiness projects
- Window air conditioner policy
- GIS – mapping tools
- Progress updates
  - North campus infrastructure improvement - West Circle Drive 2015
  - Duffy Daugherty Football Building - renovate locker room and training room
  - Spartan Marching Band - artificial turf field
  - Munn Ice Arena - HVAC upgrades and ice making system replacement
**Step 1: Authorization to plan**
- Sheep barn – addition 2 – Sheep Lambing and Research Facility
- Crop Science – field laboratory – addition 2 - greenhouse
- MSU Police Special Response Team Operation Center

**Step 2: Authorization to proceed**
- Engineering Building - chiller replacement
- Saginaw Valley Research and Extension Center - agricultural education center
- Children’s Garden – restroom and sewer line

**Step 3: Bid and contract award**
- Parking – Lot 97 (Engineering Research) expansion
Step 2: Authorization to proceed

- MSU College of Law - north entrance site improvements
- Food Processing and Innovation Center
- Special Housing – construct original building
• It’s snow season. Be snow safe!
  • Don’t rush – give yourself time to get to work
  • Drive carefully
  • Dress warmly
  • Wear sensible shoes
  • Watch where you are walking
  • Shorten the length of your stride while walking
  • Check the forecast before heading outside
• **Safety**

  - Do not dart out in front of or behind snow-removal equipment. It is large, loud and difficult to stop quickly.
  - Make eye contact with a snow-removal equipment operator before crossing in front of him/her.
• **Salt and ice-melt compound**
  
  • Dial 353-1760 to report icy spots on campus.
  • It takes time for the ice-melt compound to take effect.
Brine versus no brine
Brine versus no brine
Remember... your help is needed!

If you see an icy area, please sprinkle it with ice-melt compound.

Please help us keep walking surfaces clear of snow and ice this winter.

The ice-melt compound is an environmentally friendly alternative to salt that is provided by your Infrastructure Planning and Facilities partners in snow removal:

- Building Services–Custodial Services
- Landscape Services

Thank you for your help!
• **Sidewalks**
  
  • Do not park so close to the sidewalk that your car’s bumper hangs over it.
• **Parking lots**
  
  • Avoid parking in the part of a lot that has not yet been cleared.
  • Park where it’s plowed or wait a few minutes for the driver to finish and then park freely in the cleared lot.
• **Residence hall parking loops**
  
  • Parking is prohibited in residence hall loops from 2 to 6 a.m.
  
  • With 65 people plowing, 26,000+ spaces must be cleared before 6 a.m.
• To request services or to report dangerous spots on campus, call 353-1760.

• If you can’t call, tweet IPF (@MSUFacilities) to report snow concerns (and to send photos).

• For more information on MSU’s snow-removal plans, visit ipf.msu.edu.
  o Snow and ice removal services: http://ipf.msu.edu/services/snow-and-ice-removal.html
  o Green practices for snow removal: http://ipf.msu.edu/green/practices/snow-removal.html

• E-mail feedback, suggestions and comments to snowplan@ipf.msu.edu.
Cold weather water intrusion events

Deb Russell / Mike Ouderkirk
Infrastructure Planning and Facilities
Building Services
Important points to remember

• With extreme cold temperatures, plumbing and HVAC infrastructure can be vulnerable to freezing and breakage.
• Warmer temperatures do not mean the end of winter plumbing problems; many issues do not present themselves until after the thaw has begun.
• As temperatures warm, snow and ice melt can also cause water intrusion into structures.
• It is imperative to report any water intrusion events as soon as possible to IPF Dispatch at 353-1760.
• We keep MSU running 24/7/365.
Cold weather water intrusion events

Event reporting and response

**Customer calls IPF Dispatch 353-1760 with the following information at hand:**
- Building, room, lab?
- Caller, phone number?
- Is water puddled (standing)?
- Is the water still flowing?
- How many inches?
- Carpeted floor?
- Water on drywall?
- Is it clear or does it have color?
- Is there an odor?
- Does the caller know the cause?
- Source?
- Is it due to departmental equipment (account number or department name)

**Dispatch will then notify IPF first responder.**

**IPF first responder assesses the situation, contacts the customer as necessary and dispatches appropriate personnel to area.**
Cold weather water intrusion events

IPF’s goals

• Stop further intrusion of water
• Limit damage
• Provide the fastest service possible
• Minimize displacement of staff and disruption of work
Cold weather water intrusion events

Recent event at Manly Miles Building
Cold weather water intrusion events

Recent event at Packaging Building
Questions?
FACULTY READINESS PROJECT

Office of Planning and Budgets / Facilities Planning and Space Management
Infrastructure Planning and Facilities / Engineering and Architectural Services

Nick Kramer, IPF/EAS | Eric Boatman, OPB / FPSM | Sue Hopper, IPF / EAS | Monte Pride, IPF / EAS
GOAL

Create a positive experience for colleges and a welcoming environment for new faculty by delivering an outstanding project that is high quality, time and cost efficient, and supports the advancement of the university’s research agenda.
CAPITAL PROJECT TYPES

Major (>$1M / 14 to 16 Months) – BOT, Campus Infrastructure Planning Work Group

Minor ($250K to $999K / 12 to 14 Months) Purchase Order (<$250K / 8 to 12 Months) and/or IPF (in-house) Construction

Projects can be either:
Designed by in-house staff or designed by outside consultants with EAS oversight

It depends on size, complexity, staff availability and timing
PROJECT DELIVERY

Project Identification (multiple channels)
- Service Request
  - Individual College Space Planning Meetings
  - Acad. HR – Notification to FPSM and IPF

Project Team & Partners
- Requesting Unit
- FPSM & IPF
  - Environmental Health & Safety
  - Subject Matter Expert
  - Police & Public Safety
  - Purchasing
  - Information Technology Services

Project Execution & Delivery
- Programming
  - Determine requirements and scope of the project
- Design Development
  - Schematics, Design Development, Code Review, MSU Construction Standards
  - Construction Documents
- Construction
  - Structural, Mechanical, Electrical, Plumbing
  - Safety Features
- Delivery
  - Substantial Completion
  - Punch List

Occupancy & Process Evaluation
- Move In
- Post Occupancy Evaluation (POE)
- Customer Satisfaction Follow-up
THE TEAM

College / Department

FACULTY READINESS PROJECT

FRP TEAM
Eric Boatman, FPSM
Sue Hopper, IPF / EAS
Nick Kramer, IPF / EAS
Monte Pride, IPF / EAS

Resource Center for Persons with Disabilities
Environmental Health & Safety
Police & Public Safety
Purchasing
IT Services
Animal Care Program

Faculty Readiness Project
FACULTY READINESS PROJECT

What will FRP do differently?

• Proactively plan for potential new hires
• Use various delivery methods to shorten bid periods and construction timelines
• Dedicated team for these projects
• Clear, consistent point of contact
• Centralized coordination of internal and external service providers
FACULTY READINESS PROJECT

Why are we doing this?

• Improve timeframe of project completion for incoming faculty
• Align project expectations with appropriate delivery method
• Respond to Bolder by Design imperatives of increasing research opportunities and advancing our culture of high performance
To expedite the process, we need to know as soon as possible.

Design & Construction takes time

Material Procurement
(typical lead times)
- Light Fixtures (8 weeks)
- Doors / Windows (8 weeks)
- Casework (8-12 weeks)
- Mechanical Equipment (12-16 weeks)
- Furniture (6-10 weeks)
How can we work together to expedite the project?

• Early identification of space plan and program
• Send in Service Request for renovation as soon as possible
• Identify preliminary scope of work for estimating
• Active involvement from Principal Investigator (PI) and department contact
• Complete “Faculty Readiness Project Checklist” with PI involvement
• Obtain photos of researcher’s current laboratory
FACULTY READINESS PROJECT

Upcoming Service Request Changes

NEW!

Faculty Readiness Project
SUMMARY

• Pro-active planning and renovation to meet the units’ needs for new faculty hires
• Dedicated team providing central point of contact and project coordination
• Create a positive experience for colleges and a welcoming environment for new faculty or time-sensitive grants by delivering an outstanding, efficient project that helps advance the university research agenda
Questions?

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Window air conditioner policy
Goal

• To increase efficiency, cut costs, and provide campus customers with better service regarding window air conditioners.

Scope

• Window air conditioner service requests will be routed to IPF’s Project Services team, which will manage the project from start to end (“one-stop-shopping”).

• Cost estimates will be based on the past three-year history.

• The cost structure, to be reevaluated on a yearly basis, will be as follows (for the 2015 calendar year):
  - 1 ton $2,000
  - 1.5 ton $2,200
  - 2 ton $2,400
  - 3 ton $4,800
Scope (cont.)

• Customer will be provided with a quote and a single bill for the project.
• Installation will be performed by a contractor that has carpentry, electrical and sheet metal resources. This will provide one point of contact and will expedite the project timeline.
• We will preorder and maintain an inventory of units, based on past need, which will further expedite the process.
• Our goal is to execute the installation of window air conditioners within one month of receiving the approved request.
• Upon the completion of a project, customer will receive follow-up from the team, warranty information and training on the system.
Scope (cont.)

• If a service request is received for repair, and it is deemed that replacement is necessary, the customer will receive an estimate for only the equipment replacement.

Timeline

• Implementation: March 2
Questions?
GIS mapping tools
Chris Perry
Campus GIS Coordinator
Facilities Information Services (FIS)

FIS is a sub-group of IPF’s Engineering and Architectural Services department. FIS is tasked with maintaining, distributing and providing analysis of comprehensive data about MSU’s infrastructure.
Detours

Infrastructure Planning and Facilities provides detour routes for traffic on Michigan State University's main campus primarily due to construction projects. As projects progress and detour dates may change, visit the interactive construction detour map to view current closure information or view upcoming closures using the filter by start/end date feature.

Consider riding a bicycle on campus to quickly navigate construction zones and find convenient parking spots. Stop by the MSU Bikes Service Center to lease or buy a bicycle or to get a bike repaired. View a map of campus bike paths (PDF).
Welcome to Michigan State University campus geographic information system (GIS). We provide many different applications and web services for MSU staff, faculty, students and the general public. We have now joined forces with Facility Information Services (FIS) department under the Infrastructure Planning and Facilities (IPF) unit. Please contact us with any questions or comments at support@gis.msu.edu.

Please login to view all applications and web services you have access to. The login button is located on the top left side of the page under Welcome. To view current web applications, select the Applications link on the left side of the page. The Web Services link provides information on consuming our web services for integration into your own applications. The Resources link provides access to external websites that we maintain. Documentation for specific applications and web services are available through the Documentation page. For general help, such as logging in and required software, select Help. The Contacts link contains information on how to reach us.
About Campus Wayfinding

This web site provides resources for finding your way around Michigan State University campus, information and guidelines about digital signage, and data services for application integration.
Questions?

Please send any additional questions or requests for support/access to: fissupport@ipf.msu.edu
or call the FIS Support Hotline at: (517) 353-3434
Why?

• Replace existing structurally deteriorating arch steam tunnels from the north campus substation to Steam Vault 376 (northeast corner of the MSU Library), some of which are 87 to 102 years old.

• Provide new steam services to Olds Hall and complete the north campus steam loop (which also includes steam distribution work in the NCS).

• Install new electrical duct bank from the NCS to north of Olds Hall and replace deteriorated electrical vault lid by Olds Hall.

• Road reconstruction of West Circle Drive (two 10-foot traffic lanes, one 4-foot bicycle lane) from the east side of the MSU Library to the west side of the Auditorium Road and West Circle Drive intersection. Improve pedestrian, vehicular and bicycle safety.
Why?

• Reconfigure Parking Lots 6 and 11 to meet current parking standards.
• Replace deteriorated cast iron water mains and improve fire flow capacity.
• Decommission NCS electrical transformers.
• Repair/replace deteriorated sanitary and storm sewer mains.
Parking impacts

- Parking Lot 6 (MSU Museum parking lot) has been reconfigured to meet current parking standards and will result in a loss of eight (total count from 45 to 37) parking spaces.
- Parking Lot 11 (Hannah Administration, MSU Library and Olds Hall) has been reconfigured to meet current parking standards and pedestrian safety. The above improvements will result in a loss of 10 (total count from 127 to 117) parking spaces.
Timeline

• Construction early preparation: March to May
• Construction begins: May 11
• West Circle Drive and Parking Lot 6 reopened: July 12
• Parking Lot 11 and access drives reopened: Aug. 14
North Campus Infrastructure Improvement - West Circle Drive 2015
March 2015

Proposed - West Circle Drive - project area and phases

Phase 4 of 4
Proposed hardscape, utilities and vegetation
Proposed road, parking and site flatwork
Construction phasing
Proposed construction sequence – phase 1 (May 11 – July 12)
Impacts

• Major buildings impacted during this phase of construction:
  o Music Building
  o Music Practice
  o Intramural Circle
  o MSU Library
  o MSU Museum
  o Olds Hall
  o Hannah Administration Building
  o Beaumont Tower

• West Circle Drive will temporarily close from the Library/Admin entrance to Auditorium Road. There will be limited access for delivery vehicles (for approximately eight weeks) from Beal Street to the Library/Admin Drive entrance. Temporary detour plans and pamphlets/signs will be developed shortly.
Temporary measures

• Permit 13 spaces will be relocated to Admin Loop or another parking lot if requested. All other leased spaces will be relocated to adjacent parking lots and ramps.
• CATA’s Spec-Tran will run during building hours.
• Site access will be provided Monday to Saturday, 6 a.m. to 6 p.m. by the construction manager, and 6 p.m. to 10 p.m. by MSU Police. Sunday site access will be provided by either the construction manager or MSU “Green Coats” security.
Proposed construction sequence – phase 2 (July 12 – Aug. 14)
Design representative:  
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mgardner@ipf.msu.edu  
(517) 432-0782

Construction representative:  
Andy Linebaugh  
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Why?

- Training facilities were last updated in the mid-1990s.
- Major technological changes have occurred in training therapy delivery methods since then.
- The installation of modern equipment will necessitate reconfiguration of the existing space.
- The locker rooms in the building are in need of functional, spatial and aesthetic refurbishment, as they no longer reflect Big-Ten-level facilities.
Scope

• Training room
  o Install new therapy pools, reconfigure offices area, reception/monitoring and treatment spaces.

• Locker room
  o Reconfigure locker arrangement for a more open layout and install new lockers.
  o Redistribute ventilation system.
  o Update furniture, finishes and technology.
Impacts

- Occasional road closures on Shaw Lane during portions of the project due to truck traffic.
- The building will remain open during the project, and alternate routes through the building will be provided for occupants.

Timeline

- Construction start: January 2015
- Ready for occupancy: July 2015
Existing locker room
Proposed new locker room perspective
Studs, blocking and exhaust infrastructure installation
Conduit being installed
Existing training room layout
Proposed new training room perspective – therapy pools
Proposed new training room perspective
Excavation of pool basement, looking south
Excavator removing soils
CONSTRUCTION.MSU.EDU

Construction representative:  
Kevin Durkin  
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(517) 432-2153

Duffy Daugherty Football Building – Renovate Locker Room and Training Room
March 2015

Duffy Daugherty's training facilities were last updated in the mid 90's. Since then, major technological changes have occurred in the training therapy delivery methods. The installation of modern equipment will necessitate reconfiguration of the existing space. Similarly, the locker rooms in the Duffy building are in need of functional, spatial and aesthetic refurbishment, as they no longer reflect Big Ten level facilities.

Project details:
- Training Room: Install new therapy pools, reconfigure offices area, reception/monitoring and treatment spaces
- Locker Room: Reconfigure Locker arrangement for a more open layout and install new lockers, redistribute ventilation system, update furniture, finishes and technology

The Duffy Daugherty Football Building is located at the corner of Chestnut Road and Shaw Lane.

Detour Information:
The southernmost lane of eastbound Shaw Lane and the adjacent sidewalk will be closed from January 12 to March 1. Pedestrians and bicyclists will be re-routed to the north side of Shaw Lane. Motorists will be able to use the inside lane on the eastbound side of Shaw Lane during this closure. This detailed map outlines detour impacts and project phasing.
Project goals:
• Artificial turf provides a safer and superior surface for the band. Intramural sports activities and other summer sports camps will also use the space.

Project scope:
• The artificial turf field incorporates:
  o Improved drainage system
  o Infill system comprised of recycled tires
• Other improvements:
  o Band tower
  o New fencing/gate and drive relocations
  o Relocation of javelin and discus cage
  o Bleacher seating with accessible walk to accommodate 300 spectators
Impacts/timeline:

• Construction began after spring commencement in 2014.
• Completion was required to accommodate marching band practice mid-August.
Spartan Marching Band – Artificial Turf Field
March 2015

Location map
On band tower, looking east
Yard-line marker
Time-lapse video of turf installation
Eichlers, and Akers Trust come together to fund field of dreams
Construction representative: Todd Wilson
tdwilson@ipf.msu.edu
(517) 432-4355
Munn Ice Arena – HVAC Upgrades and Ice Making System Replacement
March 2015
Project scope:

• This project involved replacement of the ice plant, rink surface, dasher board system and glass, and also improvements to the HVAC system.

• The project took advantage of energy-saving technology for the HVAC system and addressed deferred maintenance needs for this building.

Timeline:

• Construction start: Nov. 11, 2013
• Project completion: Aug. 8, 2014
Placing concrete on the arena floor
Munn floor
Finalizing concrete placement
Time-lapse video of concrete floor pour
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Construction representative:
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IPF website

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- “Like” IPF on Facebook: www.facebook.com/MSUFacilities
- Watch IPF videos on YouTube: www.youtube.com/FacilitiesMSU
Construction Junctions continue monthly

Meetings are at 8:30 a.m.  the second Thursday of the month

• April 9 (College of Law, room 471)
• May 14 (College of Law, room 343)
• June 11 (College of Law, room 343)

Please sign in and take a survey before you go!