CONSTRUCTION PLANNING AND PROGRESS MEETING
BROUGHT TO YOU BY INFRASTRUCTURE PLANNING AND FACILITIES
Thursday, April 9, 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!
• **MSU Board of Trustees updates**

• **Progress updates**
  - North campus infrastructure improvements - West Circle Drive 2015
  - Kellogg Center - replace absorption chilled water system
  - Bio Engineering Facility
  - Facility for Rare Isotope Beams – building structure
  - Cyclotron - addition 16 - office

• **New presentations**
  - MSU College of Law - north entrance site improvements
  - New intercollegiate golf building
  - Saginaw Valley Research and Extension Center - agricultural education center phase one
  - Sheep Lambing and Research Facility
  - Crop Science - field laboratory - addition 2 - greenhouse
  - MSU Police Special Response Team operations center
Step 1: Authorization to plan
- Sheep Lambing and Research Facility
- Crop Science – field laboratory – addition 2 - greenhouse
- MSU Police Special Response Team operation center
- MSU Scene Shop – construct replacement building

Step 2: Authorization to proceed
- Engineering Building - chiller replacement
- Saginaw Valley Research and Extension Center - agricultural education center phase one
- Children’s Garden – restroom and sewer line
- T.B. Simon Power Plant – upgrade natural gas distribution system

Step 3: Bid and contract award
- Parking – Lot 97 (Engineering Research) expansion
Step 1: Authorization to plan
- Communication distribution – upgrade campus wireless network

Step 2: Authorization to proceed
- MSU College of Law - north entrance site improvements
- Food Processing and Innovation Center
- Special housing – construct original building
- MSU Scene Shop – construct replacement building
- Sheep Lambing and Research Facility
- Crop Science – field laboratory – addition 2 - greenhouse
- MSU Police Special Response Team operation center
North campus infrastructure improvements - West Circle Drive 2015
April 2015

Project location

- North Academic District
- Central Academic District
- South Academic District
- Residential District
- Natural Areas District
- Athletic and Recreation District
- Agriculture District
- Service District
- North Mixed Use District
- South Mixed Use District
Why?

• Replace existing structurally deteriorating arch steam tunnels from the North Campus Substation to Steam Vault 376 (northeast corner of Library building), 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 – May
• Construction begins: May 11
• West Circle Drive and Parking Lot 6 reopened: July 12
• Parking Lot 11 and access drives reopened: August 14
Phase 4 of 4

North campus infrastructure improvements - West Circle Drive 2015
April 2015

Proposed - West Circle Drive - project area and phases
Proposed hardscape, utilities and vegetation
Proposed road, parking and site flatwork

PARKING SPACES IMPACTED

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Construction phasing
Proposed construction sequence – phase 1 (May 11 – July 12)

- Flagger provided at intersection to help direct traffic.
- FLAGGER PROVIDED AT LIBRARY TO HELP DIRECT DELIVERY AND LOADING TRAFFIC ON SIDEWALK.
- Temporary drive to Lot 11.
- Parking closed.
- Loading and delivery access to Lot 11 only.
- West Circle Drive closed to traffic. 2-way traffic for loading and deliveries only.
- On-street parking closed.
Affected units

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

• West Circle Drive will be temporally closed from the Library/Admin Entrance to Auditorium Road and limited access (delivery only for approximately 8 weeks) from Beal Street to the Library/Admin Drive. 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 lease spaces will be relocated to adjacent parking lots and ramps.

• CATA’s Spec-Tran will run during building hours. Construction Manager provides site access Monday – Saturday 6 a.m. – 6 p.m. and MSU Parking Enforcement from 6 p.m. to the close of building hours. Sunday will be CM and/or MSU Parking Enforcement.
Proposed construction sequence – phase 2 (July 12 – August 14)
Design representative:
M. Scott Gardner
mgardner@ipf.msu.edu
(517) 432-0782

Construction representative:
Andy Linebaugh
alinebau@ipf.msu.edu
(517) 432-7103
Why?

• Project goals
  o Replace existing steam-absorption chiller plant that has reached the end of its useful life.
  o Provide the Kellogg Center with a reliable and efficient chilled-water cooling system.

• Scope
  o Remove both 700-ton steam-absorption plants.
  o Install 680-ton modular chiller in existing mechanical room.
  o Replace cooling towers on roof (existing location to remain).
  o Kellogg Center must remain in operation throughout chiller plant replacement.

• Impacts
  o Harrison Road single-lane closures will be limited to evenings.
  o Closures will not occur during athletic events.
Schedule:

• Construction start: November 2014
• Project completion: April 2015

Note: frost laws may delay completion of the last phase of the project
Kellogg Center – replace absorption chilled water system
April 2015

Site plan (project will require night-time lane closures for cooling tower removal)
New chiller piping
Old cooling tower - to be removed
New chiller
Construction representative: Kevin Durkin
kdurkin@ipf.msu.edu
(517) 432-2153
Why?

- This project involves a four-story research lab building that is designed to facilitate interdisciplinary research and interaction among all occupants.
- The building will be physically connected to the existing Clinical Center C-Wing and Life Science B-Wing, with proximity to the Radiology Building to facilitate the sharing of core research resources.

Timeline

- Construction start: September 2013
- Ready for occupancy: December 2015
Impacts

• The two east doors on the southeast side of Life Science are for emergency egress only (directional fencing in place).
• The north drive off of Service Road, east of the Life Science building, will remain open for construction traffic and deliveries only.
• There will be increased construction traffic.
Exterior picture taken facing the main entrance. Workers lifting materials to the fourth floor.
Atrium feature wall and ceiling panels being installed
Workers continue to run HVAC, plumbing and electrical piping overhead.
Office walls start to take shape as metal studs are put in place.
Soon workers will install the ceiling grid and tiles for this lab space.

Road closed to the public. Construction and delivery use only.

Three-Way Stop
Bio Engineering Facility
April 2015

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Construction Representative:
Ken Gottschalk
kjgottsc@ipf.msu.edu
(517) 353–7234

Bio Engineering Facility

Project phase: Construction

The construction of the Bio Engineering Facility will provide a unique opportunity to bring together research teams from engineering and biomedical research to promote the development of bio-engineering and engineering health sciences at Michigan State University. These emerging research areas have significant opportunities for increased federal research funding, as well as for technology transfer to the private sector, which can promote the development of a transformational bio-based economy in Michigan.
FRIB traffic and pedestrian routing during construction

Present to October 2016
- Restripe and turn over one west-bound and two east-bound lanes
  - Site fence moved south
  - Bike path open

November 2016
- All four lanes of Wilson Road will be re-opened
Rendered perspective - southwest view
FRIB construction - aerial view
Developed plan to build a temporary earth retention wall on top of tunnel lid up to the underside of the slab on grade to allow the backfilling operations to continue

- This allows a larger portion of the linac support building to be constructed early, allowing early installation of technical equipment

Continuing installation of radio frequency (rf) shafts on east end of project, as well as waterproofing and backfill

Began installing steam and condensate lines in the linac tunnel for temporary heat

Continuing work on target and hot cell concrete walls

- Structural steel: 570 / 2,800 tons = 21% complete
- Re-steel: 1,601 / 2,800 tons = 56% complete
- Concrete: 21,628 / 43,000 yards = 50% complete
Project information

Project representative:
Brad Bull
babull@ipf.msu.edu
(517) 908-7751

Additional information:
www.frib.msu.edu
Why?

• To expand the office portion of the facility to accommodate the new staff, faculty, and students that are being hired in support of the FRIB project

Scope

• The project consists of the following elements:
  - Partial demolition of the existing Cyclotron
  - Build out of electrical and mechanical systems
  - New six-story office addition, approx. 74,000 square feet
  - First floor features, 265 seat auditorium
  - Floors two thru six will consist of perimeter office, with open space in center areas
Project requirements

• Safety and security
  o The office addition will include access control

• Parking
  o Parking is not affected and no additional parking is required

• Utilities
  o This project is being coordinated with existing site utilities

Schedule
• Construction start: February 2015
• Ready for occupancy: August 2016
Aerial view of site showing location of office addition
Construction representative:
Jessica Kolp
kolp@frib.msu.edu
(517) 908–7746
MSU College of Law – north entrance site improvements

College of Law
Why?

• Enhance existing main north entrance
• Recognize the MSU College of Law history - and its origins as the Detroit College of Law. The College intends to name the new entry the DCL Plaza.

Scope

• New entry canopy
• New outdoor seating area, which replaces some bike parking
• Relocation of two limestone friezes from Detroit, along with historical and donor recognition plaques
• Improvements to lighting, wi-fi, pavement and landscaping are planned.
Impacts:

- Construction deliveries and minimal walk construction will require intermittent single short-duration closures along west-bound Shaw Lane.
- Pedestrians will be impacted intermittently by shifting crosswalk relocations. The main entrance to the building will not be closed.

Timeline:

- Construction start: July
- Project completion: late September
Aerial view of site
Site plan

- CATA BUS STOP
- MAIN ENTRANCE TO BE RENOVATED
- EXISTING BIKE LOOPS TO BE REMOVED TO PROVIDE SEATING AREA

MSU College of Law – north entrance site improvements
Circulation plan during construction
Existing north entrance
North entrance bicycle parking just east of entrance
East façade – to be emulated on new north canopy
MSU College of Law – north entrance site improvements

Rendering of proposed improvements
Rendering of proposed improvements – view from west
Design representative: Deb Kinney
kinney@ipf.msu.edu
(517) 432-0324
Why?

• The existing intercollegiate golf facility was built in 1958.
• Built with residential grade construction, the building requires ongoing maintenance.
• The conversion of the outdoor pavilion into an indoor practice area in 2006 served to extend the building’s functionality, but falls far short in comparison to competing Big Ten facilities.
• A new facility is necessary to facilitate the recruitment, training and development of future athletes; and ensure continued success of the MSU Golf Team.
New intercollegiate golf facility

Project scope:

• **Site work to include:**
  - More prominent entry
  - Parking
  - Utilities
  - Landscaping

• **New building to include:**
  - Coaching offices
  - Locker rooms
  - Indoor practice green
  - Public/player lounge/gathering space
  - Public restrooms
  - Small weight training area
  - Small club repair room
  - Display space
Impacts:

• All areas of the west course to remain open
• Periodic traffic impacts to facilitate material deliveries

Schedule:

• Construction start: May 2015
• Ready for occupancy: January 2016
New intercollegiate golf facility

Proposed site demolition plan
New intercollegiate golf facility

Proposed site plan
New intercollegiate golf facility

Proposed floor plan
New intercollegiate golf facility

Rendering of front exterior
New intercollegiate golf facility

Construction representative:
Todd Wilson
tdwilson@ipf.msu.edu
(517) 432-4355
Saginaw Valley Research and Extension Center - agricultural education center phase one

Project location
Why?

- Strengthen public/private industry relationships
- Enhance regional community education and outreach
- Agricultural industry meetings/trainings
- High-tech distance learning, field-oriented education
- Ag tourism

Scope

- 11,200 square foot facility – 4,500 sqft exhibition hall
- Classroom and commons area
- Gallery hall for regional ag initiatives and history
Impacts
• Expect 2,000 – 5,000 visitors to SVREC annually
• Public water, natural gas, fiber extensions – neighbor access
• Industry funded – industry board input – local input

Timeline
• Construction start: June 1
• Ready for occupancy: October 1
Aerial view of current site showing proposed center location

Proposed
Agricultural Education Center
Saginaw Valley Research & Extension Center
Frankenmuth, Michigan
Saginaw Valley Research and Extension Center - agricultural education center
phase one

Site plan
Saginaw Valley Research and Extension Center - agricultural education center
phase one

Building floor plan showing project phases
Saginaw Valley Research and Extension Center - agricultural education center phase one

Rendering of new structure
Project representative:
Ben Darling
darlin21@msu.edu
(517) 927-8238
Why?

- New researcher and area of focus
- Reinvigorated programming
- Enhanced lambing facilities to improve research opportunities
- New direction for animal feeding and handling (industry)

Scope

- Demolition of existing “old” wing and construction of new
- Creation of lab and procedure space
- Enhancement of existing animal pen and feeding areas
Impacts

- Personnel space being added, along with parking/access
- Natural gas, septic and connectivity services
- Essentially becomes non-public visitation/viewing

Timeline

- Construction start: August 1
- Ready for occupancy: November 1
Aerial view of current site showing proposed addition location
Sheep Lambing and Research Facility

Site plan showing existing and proposed space
New lab and research floor plan

New Lab & Research

Sheep Lambing and Research Facility
Project representative:
Ben Darling
darlin21@msu.edu
(517) 927-8238
Why?

• Potato breeding and genetics program expansion
• Additional space required
• GM potatoes and certified seed production – separation required
• Spatial organization of research activities at field lab

Scope

• Basic site work
• Polycarbonate sidewall and Durafilm roof
• Connection to existing field lab
Impacts

• Existing field lab facilities provide infrastructure support
• Personnel already on site for “related” research and teaching
• Constructed for future expansion, if ever needed

Timeline

• Construction start: July 1
• Completion and fully operational: September 1
Aerial view of current site showing proposed greenhouse location
Photo of similar greenhouse currently on campus
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Project representative:
Ben Darling
darlin21@msu.edu
(517) 927-8238
MSU Police Special Response Team operations center

MSU Police Firearms and K-9 Training Facility
Why?

• Relocation of existing facilities (former Michigan State Police) for Special Housing project
• Equipment and vehicle storage plus personnel space – one bldg.
• Also serves as Regional Response Team Operations Center
• Provides optimal location for incorporation with other trainings

Scope

• High-bay wing for vehicle and equipment storage – drive-thru
• Low-bay wing for personnel lockers, equipment and briefing
• Site work, water, natural gas and septic
Impacts
• Isolated area within existing training complex
• No public access – gated entry
• Access for regional participation

Timeline
• Construction start: August 1
• Ready for occupancy: October 1
Aerial view of current site showing proposed location

MSU Police Special Response Team operations center
Floor plan of proposed facility
IPF website

- Alerts feed
- Construction
  - Detours
  - CJ info
  - Project info
  - Contact info
- Resources
- Listservs

www.ipf.msu.edu
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Construction Junctions continue monthly

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

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

Please sign in and take a survey before you go!