Technician and Laboratory Facilities Requests Procedure

Pat Brainard, SangHyun Lee, Jerry Lynch, Jason McCormick and Jan Pantolin
Procedure Objectives

• Take full advantage of the excellent technical staff, fabrication facilities and testing laboratories in CEE
• Better integrate the technical staff into projects during planning stages
• Coordinate laboratory and fabrication resources equitably across the department
• Provide a formal means of assessing the quality, timeliness and professionalism of the technical staff
Technical Staff

Jan Pantolin
Technical Services Supervisor

Tom Yavaraksi
Laboratory Services Supervisor

Bob Spence
Laboratory Technician

Steve Donajkowski
Mechanical Technician

Ethan Kennedy
Electronics Technician
Laboratory Facilities

Structural Engineering Laboratory

Mechanical Testing Laboratory

Concrete Mixing Laboratory

Fabrication Facilities
Procedure Overview

- Need for Research Support
- Request and Scheduling
- Set Date for Pre-Project Planning Meeting
- Pre-Project Planning Meeting(s)
- Fabrication
- Laboratory Use and Testing
- Technician Time
- Project Completion
- Survey
- Survey Review
Need for Research Support:

- Have fabrication needs; require use of the structural engineering laboratory, mechanical testing laboratory or concrete mixing laboratory; or need technical staff support on a project or potential project
- Involve the technical staff early on in the process
- Resist the urge to purchase parts or full pieces of equipment
Procedure Overview

Request and Scheduling:

- Fill out *Work, Test and Lab Time Request Form*
- Initiate collaborative relationship between the project team and technical staff
- Provide as much information about the need and project as possible
Work, Test and Lab Time Request Form

CEE Technical Work, Test, Lab and Time Request

Please fill out the required information. Pre-planning meeting is required when starting a new project or test. Additional meetings may be required depending on work.

The name, username and photo associated with your Google account will be recorded when you upload files and submit this form. Not jannecco@umich.edu? Switch account

* Required

Your Name *
Your answer

Your e-mail address *
Your answer

Your Faculty Adviser *
Your answer

Your Faculty Adviser's e-mail *
Your answer

Project Name *
Your answer

Describe the project *
Your answer

Project Location - building and room number *
Your answer

Pre-planning meeting suggested date (Monday-Friday) *
MM DD YYYY
/ / 2018

Pre-planning meeting time suggested time (8am-12pm, 1pm - 4 pm) *
Time:
AM 

Project type(s) *
☐ Material fabrication
☐ Electrical/electrical control/data collection
☐ Material Purchase
☐ Repair/modification
☐ Material Testing - Reserve Test Equipment - Reserve Lab Space - list date(s) and times(s) below
☐ Mixing Lab Reservation - list date(s) and time(s) below
☐ Technician Time - Designate technician, location, date(s), time(s) and location - list below
☐ Other.

Mixing Lab Reservation - List date(s) and time(s) requested. Link to check availability on calendar: https://calendar.google.com/calendar?cid=dW1nY2guZWRjX3FxcGo1aTdoNTJpZGRnNDQyMHVnYzJwY28wQGdyb3VwLmNh6GVuZGFyLmdvb2dsZS5jb20
Your answer

Technician Time - Designate technician, location, date(s) and time(s) requested
Your answer

Priority *

 Very high   1  2  3  4  5  Very low

Desired completion date *
MM DD YYYY
/ / 2018

More details
Your answer

Sketches or other information
ADD FILE
Set Date for Pre-Project Planning Meeting:

- Technical Services Supervisor will use the *Work, Test and Lab Time Request Form* to setup a pre-planning meeting with the researchers and appropriate technical staff.
- Response to the submitter will be within 2 business days.
Procedure Overview

Pre-Project Planning Meeting(s):

• Required for every project that needs fabrication, use of laboratory space/equipment and use of technician time
• Used to identify important elements of the request
• Links appropriate technical staff with the project team
• Establishes an agreed upon timeline for the project
• Large/complex projects may require multiple meetings
• Upon completion project is added to the work requests spreadsheet and lab usage and planning google calendar
Work Request Spreadsheet

- Contains work order number, technician assigned, status, project team contact information, project information, and project location
- Shows ongoing and completed projects
- Use to track the status of your project

<table>
<thead>
<tr>
<th>WR Number</th>
<th>Assigned Status</th>
<th>Timestamp</th>
<th>Email Address</th>
<th>Your Name</th>
<th>Your e-mail</th>
<th>Your Faculty Adviser</th>
<th>Project Name</th>
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<td>2018-10</td>
<td>Bob Completed 3/16/18 3/4 hr. RMS</td>
<td>2/3/2018 12:30:16</td>
<td><a href="mailto:sb10@umich.edu">sb10@umich.edu</a></td>
<td>Caroline Van Steen</td>
<td><a href="mailto:carolinevansteen@umich.edu">carolinevansteen@umich.edu</a></td>
<td>Lutgarde Raskin</td>
<td>Fabrication of three small water traps</td>
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<td>2/27/2018 3:05:10</td>
<td><a href="mailto:florencom@umich.edu">florencom@umich.edu</a></td>
<td>Christian Flores</td>
<td><a href="mailto:florencom@umich.edu">florencom@umich.edu</a></td>
<td>Jason McCormick</td>
<td>Filled Beam Test</td>
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<td>Bob Completed 3/16/18 2 hrs.</td>
<td>3/12/2018 13:00:13</td>
<td><a href="mailto:mihmz@umich.edu">mihmz@umich.edu</a></td>
<td>Ashley Kimzey</td>
<td><a href="mailto:mihmz@umich.edu">mihmz@umich.edu</a></td>
<td>Kathleen Savener</td>
<td>Ring 100 Class</td>
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<td>Bob Completed 3/16/18 1/2 hr.</td>
<td>3/5/2018 11:31:29</td>
<td><a href="mailto:sb10@umich.edu">sb10@umich.edu</a></td>
<td>Caroline Van Steen</td>
<td><a href="mailto:carolinevansteen@umich.edu">carolinevansteen@umich.edu</a></td>
<td>Lutgarde Raskin</td>
<td>Filling in bottom of bucket</td>
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<td>2018-28</td>
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<td>3/21/2018 1:30:21</td>
<td><a href="mailto:yfang@umich.edu">yfang@umich.edu</a></td>
<td>Yihang Fang</td>
<td><a href="mailto:yfang@umich.edu">yfang@umich.edu</a></td>
<td>Harry Lu</td>
<td>Mount TV on the wall</td>
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<td>3/26/2018 10:01:47</td>
<td><a href="mailto:florencom@umich.edu">florencom@umich.edu</a></td>
<td>Christian Flores</td>
<td><a href="mailto:florencom@umich.edu">florencom@umich.edu</a></td>
<td>Jason McCormick</td>
<td>Lab. Meeting</td>
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<td>3/26/2018 12:30:16</td>
<td><a href="mailto:jasra@umich.edu">jasra@umich.edu</a></td>
<td>James D. Samrau</td>
<td><a href="mailto:jasra@umich.edu">jasra@umich.edu</a></td>
<td>Me</td>
<td>Ice Machine Installation</td>
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<tr>
<td>2018-54</td>
<td>Bob Completed 3/16/18 1 hr.</td>
<td>4/17/2018 13:09:05</td>
<td><a href="mailto:nila@umich.edu">nila@umich.edu</a></td>
<td>Nivea</td>
<td><a href="mailto:nila@umich.edu">nila@umich.edu</a></td>
<td>Krista and Lüt</td>
<td>N/A</td>
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<td>4/23/2018 11:49:50</td>
<td><a href="mailto:njorve@umich.edu">njorve@umich.edu</a></td>
<td>Nick Lowe</td>
<td><a href="mailto:njorve@umich.edu">njorve@umich.edu</a></td>
<td>Nancy Love</td>
<td>Flint Water Filter Outreach Training</td>
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<td>5/30/2018 14:52:22</td>
<td><a href="mailto:nila@umich.edu">nila@umich.edu</a></td>
<td>Nivea vilaveran</td>
<td><a href="mailto:nila@umich.edu">nila@umich.edu</a></td>
<td>N/A</td>
<td>N/A</td>
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<td>Bob Completed 5/20/18 2.5 hr.</td>
<td>5/15/2018 12:42:11</td>
<td><a href="mailto:filipov@umich.edu">filipov@umich.edu</a></td>
<td>Evgeni Filipov</td>
<td><a href="mailto:filipov@umich.edu">filipov@umich.edu</a></td>
<td>NA</td>
<td>Whiteboard installation in 214G GGB</td>
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<td>5/15/2018 17:57:22</td>
<td><a href="mailto:jpmccorm@umich.edu">jpmccorm@umich.edu</a></td>
<td>Jason McCormick</td>
<td><a href="mailto:jpmccorm@umich.edu">jpmccorm@umich.edu</a></td>
<td>ME</td>
<td>Caster Testing</td>
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<td><a href="mailto:ybbo@umich.edu">ybbo@umich.edu</a></td>
<td>Yi Bao</td>
<td><a href="mailto:ybbo@umich.edu">ybbo@umich.edu</a></td>
<td>Prof. Victor Li</td>
<td>ECC Lego</td>
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<td>Bob Completed 5 hr. 5/18</td>
<td>6/20/2018 13:01:51</td>
<td><a href="mailto:asinhaj@umich.edu">asinhaj@umich.edu</a></td>
<td>Aksel Sinha</td>
<td><a href="mailto:asinhaj@umich.edu">asinhaj@umich.edu</a></td>
<td>Dr. Nancy Love</td>
<td>INPEWS</td>
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<td><a href="mailto:njorve@umich.edu">njorve@umich.edu</a></td>
<td>Nicholas Lowe</td>
<td><a href="mailto:njorve@umich.edu">njorve@umich.edu</a></td>
<td>Nancy Love</td>
<td>Flint Pail Filter Trainings</td>
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<td>7/10/2019 15:15:59</td>
<td><a href="mailto:asinramon@umich.edu">asinramon@umich.edu</a></td>
<td>Maximiliano Asin</td>
<td><a href="mailto:asinramon@umich.edu">asinramon@umich.edu</a></td>
<td>Jason McCormick</td>
<td>Carter Project</td>
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<td>7/10/2019 15:15:59</td>
<td><a href="mailto:asinramon@umich.edu">asinramon@umich.edu</a></td>
<td>Maximiliano Asin</td>
<td><a href="mailto:asinramon@umich.edu">asinramon@umich.edu</a></td>
<td>Jason McCormick</td>
<td>Aluminum Goppers</td>
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<td>Bob Completed 8/3/18 11.2 hr</td>
<td>8/7/2018 14:25:25</td>
<td><a href="mailto:kfitting@umich.edu">kfitting@umich.edu</a></td>
<td>Katharine Fitting</td>
<td><a href="mailto:kfitting@umich.edu">kfitting@umich.edu</a></td>
<td>Lutgarde Raskin</td>
<td>Sensing Bench</td>
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<td>2018-125</td>
<td>Bob Completed 8/3/18 12 hr</td>
<td>8/7/2018 11:37:37</td>
<td><a href="mailto:maxmuni@umich.edu">maxmuni@umich.edu</a></td>
<td>Maxim Muismann</td>
<td><a href="mailto:maxmuni@umich.edu">maxmuni@umich.edu</a></td>
<td>Lutgarde Raskin</td>
<td>Cutting metal tube</td>
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<tr>
<td>2018-141</td>
<td>Bob Completed 8/3/18 45min Slave</td>
<td>8/23/2018 10:29:02</td>
<td><a href="mailto:kidsa4@umich.edu">kidsa4@umich.edu</a></td>
<td>Kietus Annes</td>
<td><a href="mailto:kidsa4@umich.edu">kidsa4@umich.edu</a></td>
<td>Professor Jerome P. Lynch</td>
<td>Asset Management of Retaining Walls</td>
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</tbody>
</table>
Planning Google Calendar

- Used for laboratory use and equipment requests
- Shows when technical staff are unavailable
  - Staff meetings
  - Vacations
Procedure Overview

Fabrication for Projects:

- During Pre-Project Planning meeting(s) (typically 1 week):
  - Requirements of the element to be fabricated are established
  - Refine the design and suggest purchase needs
- Multiple Pre-Project Planning meetings may be required
- Technical Services Supervisor will assign appropriate technical staff member to the fabrication project
- Technical staff member will work with the project team to order necessary material and equipment
- Fabrication will take at least 2 weeks for most situations
- Basic fabrication can be done by students/post-docs with proper training
Laboratory Use and Testing:

- During Pre-Project Planning meeting(s) (as long as needed):
  - Establish facilities requirements and timeline
  - Ensure participants have met laboratory safety and equipment training requirements
  - Meeting may be short or replaced with an email exchange for use of small load frames
- Simple mechanical behavior testing when fixtures are available and testing has been conducted previously (SOPs available) require 24 hour notice
- Complicated and larger tests require 5 business days’ notice
- After hours use of the structural engineering laboratory, concrete mixing laboratory and mechanical testing laboratory is discouraged
  - Arrange with Technical Services Supervisor and Laboratory Director
  - Use the “buddy” system
Procedure Overview

Technician Time:

- During Pre-Project Planning meeting(s):
  - Establish what is involved, when and how long
  - Determine if technical staff has qualifications to perform request

- Requires 5 business days notice

- Off campus work
  - Must be within regular business hours
  - Technical staff are not expected to use their own vehicles
  - Must be approved by the Department Chair with request submitted to the Chair by the Technical Services Supervisor
Procedure Overview

Project Completion:

- What constitutes completion of the work is determined during the Pre-Project Planning Meeting
- Projects completion is agreed upon by the project team and assigned technical staff
**Survey:**

- Used to assess the quality, timeliness and professionalism of the technical staff involved with the project
- Sent to the lead contact of the project team 5 business days after the completion of the project
- Fill out survey candidly
Survey Review:

- All surveys will be reviewed by:
  - Technical Services Supervisor
  - Structural Engineering Laboratory Director
  - Chair of the Facilities and Research Committee
  - Department Administrator
  - Department Chair
- Reviews will occur on a monthly basis
- Ensure faculty, post-doc and student’s needs are met
Last Minute Requests

- Fill out *Work, Test and Lab Time Request Form* immediately
- Clearly state what needs to be completed and the required timeline
- Provide reason for last minute request
- Pre-Project Planning meeting will be setup as soon as possible
- Faculty member may be asked to contact any other faculty member that this last minute request affects

Technical Service Supervisor will make every effort to accommodate the request
Questions