

BIOLOGY MEETING NOTES

PROJECT: University of Wisconsin – La Crosse
PRAIRIE SPRINGS SCIENCE CENTER – PHASE II
La Crosse, WI

DFDM PROJECT NO: 19G1J
RA PROJECT NO: 1290E

MEETING DATE: December 21, 2020

MEETING TIME: 10:00am-12:00pm

ATTENDANCE:

Scott Schumacher	UW-La Crosse	sschumacher@uwlax.edu
Mark Sandheinrich	UW-La Crosse	msandheinrich@uwlax.edu
Mike Abler	UW-La Crosse	mabler@uwlax.edu
Anton Sanderfoot	UW-La Crosse	asanderfoot@uwlax.edu
Megan Litster	UW-La Crosse	mlitster@uwlax.edu
Lisa Kobs	UW-La Crosse	lkobs@uwlax.edu
Beth Paluch	UW-La Crosse	epaluch@uwlax.edu
Tim Gerber	UW-La Crosse	dgerber@uwlax.edu
Val Schute	River Architects	v.schute@river-architects.com
Mike Adler	River Architects	m.adler@river-architects.com
Andy Hudzinski	River Architects	a.hudzinski@river-architects.com
Jeff Kuhse	River Architects	j.kuhse@river-architects.com
David Johnson	SmithGroup	David.Johnson@smithgroup.com
Coty Sandberg	SmithGroup	Coty.Sandberg@smithgroup.com
Lana Zoet	SmithGroup	Lana.Zoet@smithgroup.com
Emma Cuciurean-Zapan	SmithGroup	Emma.Cuciurean-Zapan@smithgroup.com

INTRODUCTION:

1. Coty Sandberg gave a brief overview of the agenda and goals for the meeting. The following items were noted:
 - a. Review program indicated in the December 2017 10% Concept Report.
 - b. Identify the high-level goals and needs of the department.
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PROGRAMMING:

1. Coty Sandberg reviewed the program distribution between Phase 1 and Phase 2.

- a. Thematic Organization – break down departmental silos – resulted in a more interdisciplinary approach.
 - b. 95% laboratory – nontraditional vs common mosaic program (labs, classrooms, offices, etc.)
2. Coty Sandberg reviewed the overall program for Biology in Phase 2.
- a. 63% research labs
3. Emma Cuciurean-Zapan reviewed room-by-room program requirements. The following items were noted:
- a. Science Education Methods:
 - One space at 30 seats (Note, the guideplate diagram indicates 32 seats. Space tabulation to be updated to 32 seats)
 - Nutrition components to be included in this space per Mike Abler. Need movable tables, under table storage (rolling cabinetry).
 - Eliminate support space south of the lab as indicated in the 10% concept plan. Sliding entire lab to the south. Need additional sinks for nutrition program. Larger lab space more critical than the support space.
 - South wall would include kitchen demo area.
 - No Physics 106 in this space.
 - Not enough utilization to warrant a separate space.
 - Refrigerator, oven/stove, 3-comp sink with drainboards, dishwasher, pantry space for food supplies, storage for dishes and other supplies.
 - No cameras above.
 - Electrical preferred to be provided overhead rather than the floor. Provides flexible arrangements. Design team to explore options. Mike Abler noted overhead power in Physics Labs in Cowley as an example.
 - Food science class – cooking (mostly things you'd do in your own kitchen). Hot plates brought out when used, otherwise stored away. Boiling water.
 - Methods: SMART technology needed.
 - Methods: grouped configuration (horseshoe example)
 - Methods: power needed for computer attachment
 - Methods: no air, gas, etc. needed
 - Visibility into lab not preferred per Lisa and Megan. Visibility isn't as critical as storage and wall space.
 - Perimeter storage/countertop – central location to put finished products would be needed. Perhaps opposite the nutrition area. Not a front-of-the-room type of function.
 - Shared resources with Math Education – maintain adjacency relationship.
 - Instructor podium mobility. Fixed equipment rack with portable lectern.
 - b. Support Space (Large):
 - Space for storage of microscopes, laptops, etc.
 - A smaller class may spill into this space for additional demonstration.
 - Bookshelves and workspace needed.
 - Not moving large items between lab and support – single door is sufficient.
 - c. Greenhouse:
 - Overall programming hasn't changed per Tony Sanderfoot.
 - Trench drain importance per Tony. Leakproof to lower level.
 - Soil management: UWL has not been sterilizing soil per Beth Paluch. Not a foreseeable research requirement. Some security of pathogens is done and can be handled easily by the fourth-floor autoclave if necessary. Access to loading area important.

- Growth chambers located elsewhere in Phase 1.
 - Supplemental lighting (new vs salvaged from Cowley?) Scott Schumacher noted new systems would be preferred. LED vs sodium vapor. LED preferred if the correct spectrum is provided.
 - Sinks – need to be large enough to wash pots. Soil clogging issues.
 - Temperature control is critical. Beth noted that the controls for temperature and lighting need to be secured to prevent tampering.
 - Humidification: not required per Beth and Tony. Typical building humidity would be sufficient.
 - Hose bibs commonly used and will be needed. Irrigation system discussion pending.
 - Tanks to be free-standing equipment.
 - Biology hoping for Greenhouse to be a showcase to draw interest. Near main entrance important for public interaction.
 - Proximity to Botany Lab is critical. Proximity to Specimen Museum not as critical.
 - Mike Abler noted it was more intended to be a showcase to the exterior.
 - Automated natural ventilation required.
 - RO/DI water required. Would be ok if located in adjacent room.
- d. Botany & Mycology Lab:
- 24 seats. Approved.
 - Microscope cabinet required (1).
 - RO/DI water required.
 - Overhead cabinets – Tim Gerber commented that counters are used with light rack systems so no obstructions over the counters is helpful. Tim has been growing things in terraria to supplement the down-time during construction. Omit overhead cabinets from short casework section near sink. Retain overhead cabinets at back wall.
 - Sinks to be larger. Sediment trap in at least one sink. Closest to the door preferred. (processing bench)
 - No concern of fungi spores per Beth. Standard refrigerator/freezer needed within the lab space. Tim and Tony both agreed with Beth.
- e. Medical Mycology Lab:
- 16 seats. Approved.
 - Biosafety room adjacent to lab.
 - Microscope cabinets required.
 - CO2 tanks? Omit per Mike Abler. Consider locating refrigerator here. Omit at hallway also. Refrigerator could go in lab or cabinet room.
 - Student drawers for utensils, lab coat, etc. Currently located in the lab bench table in Cowley. 32 drawers plus a couple extra. Doesn't need to be locked.
 - Lab coat storage? Drawers vs hooks? No hooks required.
 - 6 biosafety cabinets ok. 2 incubators ok. Per Beth.
 - 2 of the biosafety cabinets within cabinet room ok per Beth.
 - Glass-front collection fridge
 - Refrigerator for media and refrigerator for cultures.
 - No fume hood required.
 - No air-lock scenario required.
 - Biosafety cabinets are of exhaust-type.
- f. Herbarium:
- 30'x30' currently. Half of the space is cabinets to one side.
 - Currently three rows of cabinets back-to-back.

- Glass front tall specialty cabinets to house library materials.
 - Student stations – movable and used for plant ID. Boom scope space needed rather than computers. Could be a mix...two stations with scopes, two with computers.
 - Only concern is the cabinet quantity within the middle of the room.
 - Action Item: Tim to provide quantity of cabinets needed.
 - Workstation location – could be co-located rather than distributed. Preference may be to have them separated.
 - Ventilation: Moth balls are located in this space and as a result, ventilation is required to extract gases to the exterior, not the adjacent space.
 - Dry conditions required. Sealed cabinets. Water and insects are killer to a Herbarium.
 - David described an optimized approach for the air system and providing a grid over the cabinets to exhaust the air.
 - Dryers not required.
 - Access to this space and bringing in field specimens – not processing large quantities typically.
- g. Museum:
- Birds – cases that can be sealed (moth balls to be used). Air circulation critical. Larger cases may be needed.
 - Additional conversation needed
 - Mike Abler – prep space for specimens, ethanol, fume hood requested by Barrett. Mike to review requirements with Barrett.
 - (6) 2'x8'x4.5' high mammal display cases currently used.
 - More viewership, the better per Mike Abler. Distributed displays throughout building ok per Mike Abler. Still need space for examining specimens.
 - Markus – only limitation is that if the specimens are too dispersed, then use of the specimen for teaching can be a challenge.
 - Display of prep work could be worthwhile per Mike Abler. Mike's only concern is the utilization of the space as this activity isn't as consistent.
- h. Vivarium:
- Mike Abler – as laid out is very nice and very functional and very useful but may be more than what they need for the foreseeable future.
 - Only one barrier room needed.
 - Only two procedures room needed.
 - Only need one shower facility needed.
 - No full-time employees – no break room required.
 - SG to verify the L-shaped spaces.
 - Action Item: UWL to provide cage quantities for all species.
 - Phase 1: Fish
 - Health Science Facility: Mice – part of Gundersen Health System
 - Potential for fish within this area – to be determined. Would be housed within one of the rooms already allocated, not a new space.
 - Autoclave required. More discussion needed on the specifics for cage washing.
- i. Classrooms:
- 80 seat to an Active Learning
 - 60-72 seat active learning would be good
 - Action Item: Mike Abler to provide additional classroom data.
- j. Further discussion to be held regarding office requirements.
- River Architects to provide Design Team availability.

4. A link to the virtual whiteboard for viewing can be found here:
<https://app.mural.co/invitation/mural/smithgroup1662/1608068005145?sender=u7109dc06979f23e2f6bb6071&key=bfd632a8-9773-4dbf-b2e1-4ff7bfef4b34>
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PROJECT SCHEDULE:

1. Work Session No. 2:
 - a. Executive Committee Meeting: January 14-15, 2021 (TBD)
 - b. Design Committee Meeting: January 14-15, 2021 (TBD)
 - c. Departmental Review Meetings: January 15-29, 2021
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OPEN ISSUES:

1. Method for providing irrigation within the Greenhouse to be determined.
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Note: This constitutes our understanding of the issues presented. Contact River Architects, Inc. via phone at (608) 785-2217, or e-mail m.adler@river-architects.com if there are any discrepancies.