

Instructional Space Project Request

2013-15 Biennium

Agency **Institution** **Building No.** **Building Name**
University of Wisconsin River Falls 285-OJ-0015B Food Science Addition

Location ID 158-159 Food Science Addition

Project Title Food Science Dairy Plant Remodeling

Project Number 14E1Z

Project Intent

The intent of this project is to modernize the existing dairy pilot plant with contemporary equipment commonly used in the dairy processing industry. The dairy pilot plant will continue to provide teaching opportunities for undergraduates, applied research for faculty with industry partners, and outreach to the cheese, ice cream, and milk processing industries throughout the state and world.

Project Description

This project replaces existing plant processing equipment for the dairy pilot plant and optimizes the layout of space to accommodate the new equipment plus meet new pedagogical needs. Work includes:

Room 158 Fruit and Vegetable Processing Room

1. Remove all cheese processing equipment from room 158.
2. Demo or cap existing cheese equipment piping to source in room 158.
3. New walls in room 158 for ice cream processing room separation.

Room 158 Ice Cream Processing Room

4. New light fixtures in ice cream processing room.
5. New non-slip floor surface with coving and sloping in new Fruit/Vegetable Pilot Plant and ice cream processing room.
6. New utility piping to new ice cream processing equipment.
7. Reuse existing walk in coolers/freezers with the change to 2 walk in freezer storage rooms and 1 walk in cooler.
8. New compressor for walk in freezer.
9. New light controls in ice cream processing room.
10. Repair walls and apply new cleanable wall paint.
11. New temperature control unit in ice cream processing room.
12. New swipe security for access to product walk in cooler and freezer.
13. New swipe security access to ice cream processing room through hallway from 158E.
14. New cleanable ceiling tiles.
15. New paint on current doors.
16. New door sweeps.
17. Update man doors with cleanable paint application.
18. New temperature controls for AC.
19. New HVAC unit for room.

Room 159 Cheese Processing Room

20. New stainless piping from raw processing room to ice cream processing room, cheese processing room and whey processing room.
21. New compressed air lines in cheese processing room.

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22. New non-slip floor surface with coving and sloping in cheese processing room and adjacent whey processing and raw ingredient processing room.
23. New utility piping to new cheese processing equipment.
24. Relocate all existing cheese processing equipment in room 159 from 158.
25. New walls in room 159 for training/conference room.
26. New sink, countertop, cabinets and refrigerator in conference room.
27. New data lines to conference room.
28. New window shades installed in conference room.
29. New ceiling mounted projector.
30. New furniture for conference room.
31. New floor drains installed in rooms 159E and 159D.
32. New plumbing for wash down hoses in rooms 159E and 159D.
33. New lockers installed in vestibule to room 159.
34. Reuse existing walk in coolers/freezer with the change to 1 walk in cooler aging room and 1 walk in cooler.
35. New man door for 159D.
36. New canopy installed outside room 159D.

Retail Store

37. Remove existing cabinets, appliances and countertops.
38. New paint on existing walls.
39. Remove window.
40. New glass door with side light installed.
41. New utility piping for new retail store equipment.
42. New cabinets and countertops.
43. New flooring.
44. New sign outside of building.
45. New security swipe to access interior of processing room.
46. New sign on Cascade Ave.
47. New parking stalls painted outside retail store.

Hallway

48. Updated lighting.
49. New paint on existing walls.
50. New "Wall of Fame" donation area.
51. New data lines to viewing area.
52. New flat panel television mounted.

Restrooms

53. Updated lighting in both restrooms.
54. New paint on existing walls.
55. New paint on existing restroom stalls.

Project Justification

The College of Agriculture, Food and Environmental Sciences (CAFES) has actively demonstrated a commitment to providing hands-on education in dairy processing and manufacturing for nearly 40 years. In 1975, faculty and staff set up a temporary dairy processing facility in the former food service facilities in the Emogene Nelson Building. A new food science and processing facility was built and dedicated in 1982, with the food pilot plants beginning operation in 1983. With more than 30 years of use in academic programming, the Dairy Pilot Plant is in need of significant updating and renovation. The Plant regularly serves numerous students in a variety of introductory and advanced courses each semester. Nearly 20 students each semester are employed part-time in the Plant, including some utilizing their opportunity as an internship

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experience. Others complete their apprenticeship requirements as part of a Wisconsin Cheese Makers license. The Dairy Pilot Plant also provides a facility for conducting outreach programming in the dairy processing industry as well as applied research in dairy product development and processing.

CAFES is in the final campus approval stages of offering a new minor in food processing technology, designed in consultation with industry representatives. It will provide students across a variety of CAFES majors with a solid foundation of basic knowledge, skills, and experience in food processing. Implementing this minor will increase the interest gaining in experience in the Plant as well as the number of students utilizing the facility in their courses. Along with implementing the new minor, CAFES is evaluating the need and opportunity for students in several CAFES majors to have required practical, hands-on experience in the Dairy Pilot Plant. Industry representatives have consistently highlighted such experience as a valuable component of our educational programs.

The scope of this project renovates the dairy and fruit/vegetable pilot plants to provide for the future installation of donated dairy processing equipment. A collaborative fundraising program led jointly by CAFES and the UWRF Foundation is aligning the donation of fixed process equipment, process piping, and special moveable equipment for the processing of raw milk, making cheese, and making ice cream.

Project Budget

Construction Cost:		\$	
A/E Design Fees:	8.80%	\$	
Other Fees:	4.80%	\$	
DFD Mgmt Fees:	4.00%	\$	
Contingency:	20.00%	\$	
Movable Equipment:		\$	
Fixed Equipment:		\$	
TOTAL:		\$	940,000

Funding Source

General Fund Supported Borrowing	\$	915,000
Institutional Funds (GPR)	\$	25,000
Institutional Funds (PR)	\$	0
Gifts	\$	0
Grants	\$	0
Other	\$	0
TOTAL:	\$	940,000

Note: Investment by the State of Wisconsin in this project will leverage industry contributions of \$2,885,000 of fixed process equipment and \$462,000 in special movable equipment.

Flooring and Furniture

	<u>Tiered</u>	<u>FS</u>	<u>FT</u>	<u>MT</u>	<u>TC</u>
Existing Conditions:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proposed Conditions:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Tiered = tiered flooring

FS = Fixed Seating

FT = Fixed Tables

MT = Movable Tables

TC = Tablet Arm Chairs

Seating and Space

	<u>Existing</u>	<u>Proposed</u>
Square Feet:	0 ASF	334 ASF
Seating Capacity:	0 Stations	20 Stations
Square Feet per Station:	0 ASF/Station	17 ASF/Station

Note: currently there is no place in the lab suite to sit down. This project creates a small conference room/classroom as part of the project.

Technology

	<u>Existing</u>	<u>Proposed</u>
Technology Level:	Level 0	Level 3

1 = Level 1 3 = Level 3 AL = Active Learning
 2 = Level 2 3+ = Level 3+ DL = Distance Learning

Audio-Visual Consultant Requirements

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A technology consultant will be needed in order to integrate all technology components into a manageable system.

An audio-visual consultant is required.

Project Schedule

Bid Opening: 01/2016
Construction Start: 05/2016
Substantial Completion: 12/2016

Project Contact

Contact Name: Dale Braun
Email: Dale.k.braun@uwrf.edu
Telephone: 715-307-1568

Project Considerations

- | | Y | N |
|--|-------------------------------------|-------------------------------------|
| 1. Are hazardous materials involved? If yes, what materials are involved and how will they be handled?

Required hazardous materials abatement (base board grout and 4 duct connectors) has been included in the estimated project schedule and project budget. Comprehensive environmental survey inventory data is available on Wisconsin's Asbestos & Lead Management System (WALMS) < http://walms.doa.state.wi.us/ >. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Will the project impact the utility systems in the building and cause disruptions? If yes, to what extent?

Short term utility interruptions may be required for electrical and water services. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Will the project impact the heating plant, primary electrical system, or utility capacities supplying the building, and/or within the building? If yes, to what extent?

Main transformer capacity may be at its limit. Replacement may be necessary. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Will the construction work be limited to a particular season or window of opportunity? If yes, explain the limitations and provide proposed resolution.

While the intent is to complete the project over a summer, extending construction into the following Fall term may be allowable. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |