



Food Business Incubator and Processing Facility – Tour Guide and Map

I. Business Development and Community Outreach

1. **Lobby and Reception** area serves as an inviting space to greet guests and clients of the Food Innovation Center (FIC), and can also be converted into a conference room. The entire Business Development Services side of the facility is equipped with wireless internet access, and the lobby and reception area is also equipped with sophisticated audio and video equipment that enables distance learning and continuing education courses that can be offered to the community.
2. **Resource Library** is a resource to staff and clients alike, providing access to extensive business and technical information, which will be continually updated. In addition, two computer workstations are available to clients that enable business and technical research and access to the Rutgers library system.
3. **Focus Group Observation Room** is specially designed so that clients can observe professionally-conducted consumer research and focus groups through a one-way mirror into the adjacent conference room. In a focus group, an opinion-seeking panel discussion is created in which consumers are asked to share their perspectives on a new product concept or benefit. Groups usually consist of 8 to 12 people who join in a discussion led by a trained moderator.
4. **Conference Room** is outfitted with state-of-the-art teleconferencing and distance learning capabilities linking the FIC facility to the main campus of Rutgers University, satellite locations in rural southern New Jersey, and to sites throughout the nation. This provides the opportunity for local residents and businesses to participate in continuing education courses, which may otherwise be unavailable. In addition, this room will be utilized to train clients in Good Manufacturing Practices, and other procedures that must be followed in our processing facility, and can be used for regional conferences and community meetings.
5. **Product Development Kitchen** is designed to conduct basic research and bench-top formulation to develop cost-effective and technically feasible products that can be manufactured with assurance of safety and quality. When fully outfitted, staff will be able to assist clients in product and process development using an array of specialty equipment. In addition, product preparation instructions will be able to be determined using variable oven and microwave heating instructions. Furthermore, nutritional information can be determined using specialized software that the Food Innovation Center has purchased.
6. **Sensory Analysis** area contains four sensory evaluation booths located adjacent to the product development research kitchen. These taste panel facilities are available for food processors desiring scientifically-conducted, unbiased evaluations of their food products
7. **Chemistry Lab** is designed to conduct a broad array of routine food chemistry testing that will be needed during product development and manufacture, such as pH, water activity, moisture, and brix.
8. **Microbiology Laboratory** is designed to conduct microbial analysis of finished products, raw materials, and food contact surfaces that will help in the determination of product shelf life, the safety of products produced in the facility, and the efficacy of our facility sanitation. This lab will also enable the evaluation of new preservation technologies that can extend product shelf life and enhance product safety.
9. **Offices for Clients and Partners** allow clients to have the option to move both their processing and administrative functions into the Center's facility if desired. All of the client offices are fully furnished, and clients have access to the facility receptionist, telephone system, photocopying machines, and other services. These offices can also be used by partner agencies, such as SBDC, SBA, USDA, NJEDA, etc.

II. Product Commercialization and Food Processing

10. **Anteroom and Gowning Area** includes locker areas and restrooms, in which production personnel are required to wash their hands, and put on FIC-supplied lab coats, boots, hair nets, and gloves. This area will also contain a system for washing the underside of boots with a bactericidal solution.
11. **Production Corridor** serves as place in which all production employees must wash and sanitize their hands and gloves prior to entering a processing room. In addition, this area contains viewing windows, which enable visitors to observe the operation without becoming a potential contamination source.
12. **Bakery and “Dry Processing” Room** contains an extensive range of equipment that enables mixing, proofing, sheeting, baking, and steaming. Types of products that can be produced here include: fruit pies, breads, rolls, cookies and other baked goods, as well as seasoning blends and rubs. In 2009, the capability of producing dehydrated fruits, vegetables, and herbs will be added. This room is about 1,000 sq. ft.
13. **Blast Freezer** contains a 40 horsepower compressor that enables rapid freezing of products, to optimize quality. This will enable 20 racks of products to be frozen at temperatures as low as -30° F.
14. **Raw Material Cooler** is for the refrigerated storage of raw materials, and will consist of racking for ingredients such as boxed dairy items, meat items, and miscellaneous non-produce raw materials. This refrigerated cooler is 200 sq. ft. and 14’ high in size.
15. **Blast Chiller** contains a 20 horsepower compressor that enables rapid chilling of client products that will optimize product safety and quality, and exceed government regulations for chilling. This will enable 20 racks of products to be quickly chilled. The room temperature will be maintained at 35° F.
16. **Hot Process Area** contains an extensive range of equipment that enables blanching, steaming, cooking, roasting, baking, pasteurization, filling and labeling. Types of products that can be produced here include: beverages, soups, sauces, stews, salsas, jams and jellies, cheeses, yogurts, grilled and roasted vegetables, and meals for catering functions. A bottling line arriving in November 2008 will allow for automated production of both still and carbonated beverages. This room is about 2,000 sq. ft.
17. **Pot Wash Room** is for washing of small wares, trays, and other food contact utensils, and consists of a separate access for dirty and clean equipment, so as to minimize opportunity for cross-contamination.
18. **Cold Assembly Room** allows for assembly and packaging of products under specialty HEPA-filtered “clean room” conditions, and at temperatures that will typically be 38° F. This room will consist of horizontal form-fill-seal machines for modified atmosphere packaging, tray and cup packaging and sealing lines, and bagging, labeling and shrink wrapping equipment. This room is 700 sq. ft., and will be equipped in 2009.
19. **Fresh-Cut Room and “Cold Process” Area** will typically be maintained at 38° F and be designed for preparation and packaging of fresh-cut produce. Types of products that can be produced include: pre-cut vegetables, lettuce based salads, fresh-cut fruits, peeled whole vacuum packed potatoes, and extended-shelf-life sliced apples, peaches or tomatoes. This room is 1,500 sq. ft. and will be equipped in 2009.
20. **Raw Produce Cooler** is 700 sq. ft. and 20’ high in size and will consist of 45 pallet spaces, enabling ample storage of raw agricultural commodities. This room will be maintained at temperatures optimized for the raw materials to be stored at a given time.

III. Product Storage, Shipping/Receiving, and Building Mechanical Systems

21. **Finish Goods Cooler** is 725 sq. ft. and 20' high in size, and will consist of pallet racks that can store 48 pallets, enabling ample storage of raw materials and finished goods for client products. The room will be maintained at 38° F, and access to the upper levels of pallet racks will be via a narrow aisle reach truck.
22. **Dry Storage Area** is where raw materials are kept prior to use in production, including packaging materials as well as ingredients, and finished products can be maintained, in which ambient storage conditions are required. This can include packaging materials as well as ingredients. It is approximately 1000 sf and 24' tall. It will be racked with pallet racks that will enable us to store 90 pallets of dry materials.
23. **Finished Goods Freezer** is 725 sq. ft. and 20' high in size, and will consist of pallet racks that can store 48 pallets, enabling ample storage of raw materials and finished goods for client products. This room will be maintained at 0° F, and access to the upper levels of pallet racks will be via a narrow aisle reach truck.
24. **Maintenance Room** contains an 8" fire sprinkler, a 4" water service, all our telephone and fiber optics, and access for lawn irrigation. This room will also be used for maintenance parts and materials and includes welding equipment, an exhaust system and floor drains.
25. **Chemical Storage Room** is where chemicals and miscellaneous cleaning equipments are stored and locked.
26. **Receiving and Shipping Area** is for incoming materials and the shipment of finished product into a distribution chain. There are 4 loading dock positions under a covered canopy. Two of the positions have dock levelers.
27. **Loading Dock** consists of four bays that enable receipt or shipment of materials from or to small trucks or tractor trailers. The dock will also be used to store equipment that may be used on an infrequent basis. In addition, garbage and recycling materials are removed from the building and stored in this area.
28. **Storage Area**, located adjacent to the Bakery and Dry Processing Room, consists of one room at 500 sq. ft., which can be utilized for dedicated storage of allergen ingredients, and/or organic, kosher, or gluten-free ingredients and packaging materials.
29. **Mezzanine- HVAC Systems:** Located on the mezzanine, this large area is located over the entire processing section and contains 16 process exhaust fans, 6 heated makeup air supply fans, one HEPA air filtration system that enables "clean room" packaging of perishable products, a compressed air distribution system, steam and condensate distribution, 8 electrical circuit breaker panels for production equipment power needs, smoke and fire detection systems, doorway sanitizing control systems, refrigeration piping, natural gas piping, and four space heaters.
30. **Mezzanine - Mechanical Room:** Located on the mezzanine, this room contains a 1600 amps, 480 volts electric service; a 60 horsepower steam process boiler; two 150,000 BTU hot water heaters to service the plant sanitation requirements with a 300 gallon hot water storage tank; one 25 horsepower rotary screw air compressor and a refrigerated compressed air dryer; and will also consist of an activated carbon and sand water filtration system for process water requirements.

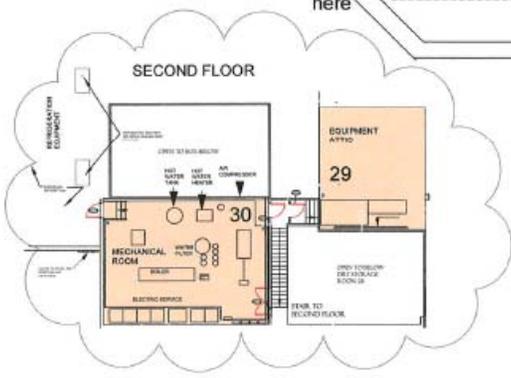


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FOOD INNOVATION CENTER

RUTGERS
FOOD BUSINESS INCUBATOR FACILITY
BRIDGETON, NEW JERSEY

- COMMON AREAS
- EDUCATION AND RESEARCH
- DRY AND COLD STORAGE
- PROCESSING AND TRAINING
- ADMINISTRATION
- CORRIDORS