

| By Lisa White |

Designing Separation for Prep

Separate prep kitchens can add to an operation's functionality and enhance speed of service.



Incorporating tables with casters and integrating retractable electrical cords into the ceiling provides added versatility in prep kitchens.
Image courtesy of Ricca Design Studios

There may be a number of reasons to segregate a prep kitchen from the main back-of-the-house area. In large commissary kitchens, bulk prep may require a room that's set apart and has more square footage to handle high volume. An operation with an emphasis on catering may need a dedicated prep kitchen to keep ingredients separate and tasks more organized. Whatever the reason, the design of these spaces won't differ much, if at all, from prep areas located within the main kitchen. The main distinctions are the scope and scale.

"Prep areas and kitchens are not vastly different," says Chris Wair, design principal, Reitano Design Group, Indianapolis. "For both, all the elements should be in close proximity, including refrigerated and dry storage as well as the workspace and accessories."

The designs strive to provide adequate workspace to allow staff to execute all prep tasks. This increases efficiency and speed of service during peak periods. "There are typically multiple tasks happening at the same

time, so there should be no worries about space constraints," Wair notes.

Gregg Golem, founder emeritus, Interactive Restaurant Consulting, Thousand Oaks, Calif., notes that prep kitchens positioned in a separate area rather than in an off-site location are more common. "However, this depends on the concept size," he says. "For example, hotels with seven or eight restaurants may have prep, receiving and storage in a completely separate location."

Off-site prep kitchens are designed for tasks that can be accomplished

ahead of time to expedite speed of service. "It could be for parcooking chicken breasts, chopping vegetables, cooking noodles or preparing sauces and gravies," says Kristin Sedej, president, S2O Consultants Inc., Chicago. "This area may be used for prepping hot, cold and ambient ingredients."

Primary Considerations

"Our primary considerations with any design are concept, menu, equipment and available space," Golem notes. "The concept determines the amount of space needed for the prep area. The menu provides the basis for the equipment needed to work within that space."

For prep kitchen designs specifically, the location of walk-in coolers

and freezers becomes one of the first elements the team must consider. "The other thing to look at is aisle space between prep tables and storage facilities," Wair says. "Because carts or pallets will go through this area, it needs wider aisles compared to other parts of the kitchen. A minimum of 6 feet ensures the prep process isn't interrupted during delivery times." He also recommends that each worktable has an adjacent overshef or storage area for prep tools, keeping necessary items at the point of use.

The foodservice designer and the operations team work together to determine what type of equipment best suits the menu and service style and supports the basic food flow. "In these designs,

the flow from refrigeration to washing and processing to finish is crucial," says Phillip Landgraf, executive principal, Ricca Design Studios, Greenwood Village, Colo. "Also, consistent food temperatures and food safety overall are primary considerations."

Preparation areas tend to get bigger with larger concepts and those with higher sales volume, according to Golem. "When designing a prep area for a restaurant, it's generally more straightforward because the menu will typically stay within certain parameters, limiting the number of processes and equipment needed to prepare the food," Golem notes. "When you get into larger institutions, such as schools and hospitals, the needs become quite different.

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For this culinary school prep kitchen, designers incorporated cooking equipment, prep tables and storage space to prepare hot, cold and ambient ingredients. Image courtesy of S2O Consultants

Schools tend to have larger preparation areas that allow for mass production utilizing tilt kettles and skillets. When you get into hotels and hospitals where prep areas support several foodservice concepts such as banquets, coffee shops and room service, this kitchen will not only involve the preparation of raw products but also the cooking of finished products, requiring additional space or a separate kitchen.”

Other factors also come into play. A school that receives one delivery from the district’s commissary per month will require more storage to balance the amount of product the school will hold. Catering prep kitchens may feature combination prep areas. These can serve double duty to accommodate mobile prep tables for production that can be replaced by hot boxes for food holding. A large resort may build a separate cold prep room that doubles as a walk-in, with temperatures kept between 50 degrees F and 65 degrees F.

Wair prefers to include multiple

sinks as part of prep kitchen designs, as these are necessary for rinsing produce, emptying liquids from cans and hand washing, among other tasks. “Each prep space needs a separate sink,” Wair says. “Similarly, numerous hand-washing sinks should be close by.”

Golem will typically place both a hand sink and food preparation sink in this area. “Depending on the size and scope of the preparation needs, we have placed three preparation sinks in this area on occasion,” he says.

Along with walk-ins, reach-in and/or undercounter refrigeration should be in close proximity to keep ingredients chilled at food-safe temperatures.

If the prep kitchen is doing hot cooking and/or parbaking, it may need its own battery of cooking equipment. “There may be tilt skillets, kettles and combis for cooking in bulk,” Sedej says. “Items may be prepped and stored in hot boxes, then taken somewhere else for finishing.”

Regardless of the menu, volume or

service style, one thing never changes: Product flow and logistics go hand in hand. “It’s important that the prep area be integrated into the overall design to allow the flow of raw products to be prepared and then moved either back into storage or into the production area,” Golem says. “It’s critical that the space be equipped with the corresponding utilities, including electric, gas and water, to support the equipment in this area.”

For more flexibility, Golem likes to equip worktables with casters for easier moving during cleaning. In addition, sloped floors equipped with floor sinks and trough drains enhance this area’s cleanliness and sanitation. “We also like to integrate retractable electrical cords into the ceiling to better support the equipment and allow for the moving of tables,” he notes.

Best-in-Class Layouts

In terms of logistics, the food preparation area sits between the storage area, next to the scullery station and behind

or very near the cookline food production pass-through area, Golem says. This gives the ideal operational flow, moving product from the storage area to the cookline production area.

“We often utilize double-wide island tables since, in a traditional footprint, you can have people working on both sides,” Wair says. “Staff can handle two sheet pans end to end on that table.”

Wair prefers to have shelves above the tables to keep ingredients and necessary supplies plus smaller equipment close at hand. Yet the emphasis remains on cold storage. “Coolers are utilized more than dry storage or freezers, so we will highlight the placement of these units,” Wair says. “With these designs, it also helps to think about the activity of each employee and what they need to retrieve from each storage area.”

Because access is crucial in prep kitchens, it helps to get creative. For example, walk-ins with doors on either side provide easier access and also versatility. “A walk-in that is loaded in on one side and emptied on the other allows salads, desserts and other prepped items to be quickly pulled out when needed,” Sedej says.

Best-in-class design for preparation areas features a distinct flow and separation of areas. “For example, bakery preparation should be separated from produce preparation in these areas as well as separated from the preparation cooking area,” Golem says. “This area must be equipped with an abundance of tables with overshelves and rolling racks to easily move products where needed.”

Landgraf adds that, although there are no cookie-cutter prep kitchen layouts, designers and operators should keep a few key factors in mind.

“For cleaning, make sure you can spray down the room and that there are floor drains,” he says. “Also, proper lighting is important since staff is working with sharp objects.”

The key element in any design is working with the operational team through the various food preparation flow alternatives and the availability of technologies that can improve their capability to prepare food in a fast and consistent manner.

“As a foodservice consultant, it’s important to expose the operations team to the functionality of the space plan and the availability of equipment to assist in improving the food preparation production capability,” Golem says.

Essential Equipment

Equipment packages for prep kitchens often include worktables, walk-ins, reach-in refrigeration, prep sinks, a two-bay sink for cleaning, storage areas, food processors and blenders. Larger-scale operations may have ancillary items like large mixers and meat grinders, in addition to cooking equipment.

“We’re looking at how many people are prepping at one time,” Landgraf says. “In general, an average prep space is between 4 and 6 feet, so having a zone or table for every person is typical.”

Other than staple equipment, prep kitchens may call for backup items, depending on the operation. Golem designed a restaurant adjacent to a hotel, which provides room service, but also has inside, patio and beachside dining. “The prep kitchen was relatively small but integrated a 20-quart mixer, three prep tables with overshelves, a prep sink, a hand sink, a combi oven and a holding cabinet,”

he says. “This area also included a vacuum sealer preservation system.”

Menu needs as well as volume should be considered when assessing equipment requirements. “The biggest thing that gets overlooked is the need for blast chilling,” Wair says. “From a food safety standpoint, the quicker food gets chilled down and kept at cold temperatures, the better.”

Wair tends to situate a blast chiller between the hot line, bulk prep and cold prep areas, since all require access to this equipment. “Also, having ventless cooking equipment makes it easier, as we don’t have to factor in where the ventilation hood will go,” he says.

Advancements in cooking equipment have made outfitting prep kitchens easier, especially those with smaller footprints. “We can rapid cook items in a smaller space with speed ovens,” Sedej says. “We also can cook and retherm using a combi oven.”

Enhancements in equipment technology continue to improve the performance of prep kitchens. “Blast chilling and speed ovens have allowed us to prep earlier and hold better for optimum product quality,” Sedej says. “Cook-and-hold ovens can be programmed and refrigerated/freezer drawers can thaw product by morning.”

Prep kitchen space also should be versatile to accommodate different dayparts. “With pendant utility receptacles, prep can take place in the morning, then this space can be reallocated for other tasks later in the day,” Sedej explains. “A good design is about understanding the menu and goal for the operation, and staffing is a big part of that.”

“Understanding what operators are trying to do in the prep kitchen is the starting point,” Landgraf says. “The discovery phase is really important to understand the goal of the space.” **FE&S**