



Trading Spaces

Smart renovation of an old teaching kitchen creates a commercially equipped Culinary Arts Center and includes a classroom that doubles as a dining room.

By Amanda McCorquodale // Photos by Lauren Lenart-Proctor, LLP Photography

Crystal Lake South High School, Crystal Lake, Ill., is putting a new spotlight on teaching trades to better connect students to real-world opportunities. To that end, it launched a new culinary curriculum that requires much more of its existing “home ec” kitchen. Community High School District 155 brought in Kristin Sedej, FCSI, Principal, S2O Consultants, Chicago, to create a cutting-edge production space and classroom. “The existing Crystal Lake South High School facility consisted of six home-style kitchens, with residential laminate counters and each with a sink, microwave, and residential stoves with ovens,” says Sedej.

In place of the school’s traditional Family & Consumer Sciences foods program, the client wanted the new curriculum to expand to cover commercial food production and cooking and

provide a space for students to earn the state’s Food Handler’s Exam and Certification. It covers basic food safety, personal hygiene, cross-contamination risk reduction, and good sanitation. Students can also earn the Illinois Department of Public Health’s Food Service Sanitation Manager Certification.

To practice and meet those state regulations as well as offer students in-depth cooking experience in a commercial kitchen, the entire space needed to be redesigned. The first challenge, according to Sedej, was the amount of space she was given to work with.

“There just wasn’t enough space in the original footprint to achieve what the client wanted,” she says. “So, we did some field surveys and worked with the district to figure out how to take over some of the adjacent rooms and incorporate them into our plan.” In the end, the

original 1,170-sq.-ft. space was increased by 200 sq. ft. to fit in a warewashing area and by another 530 sq. ft. of nearby office space to create a classroom/dining room.

Up To Commercial Standards

Sedej designed the new Culinary Arts Center in six stations where up to 24 students can work simultaneously. “There are four redundant cooking stations and then two prep stations, which run perpendicular to the cooking stations along a wall on one end,” she says. The cooking stations each feature worktables and commercial gas ranges and flank two convection ovens and fryers that are shared in the center and a shared steamer at each end. “The goal was to deliver flexibility to match the different curriculums and class sizes,” she says.

The new warewashing area contains

◀ Perpendicular to the cooking stations on the far wall, a food prep area includes counter mixers, microwaves and plenty of work space. Note the sliding glass panels on the right which open the kitchen to the classroom.

▼ By opening the glass doors, students can sit and watch the instructor give a demo at one of the cooking stations. Closed off, the room goes back to classroom-only mode or can be the dining room of a student-run restaurant.





▲The kitchen comprises four identical cooking stations beneath a single island canopy exhaust hood. Cooking-station pairs share a fryer, convection oven and steamer.

▷Designers were able to take over some adjacent office space for the classroom. It doubles as an event room as well.



an Energy Star-rated ventless door-style dishmachine; it recaptures steam condensate, using the heat to preheat incoming water. "It's one less thing you have to vent, number one, and number two, we considered the return on investment," she says. "Without having to build the vent shaft and the fan system, those machines pay for themselves after a couple years."

Although Sedej was able to go ventless with the dishmachine, other utilities proved more challenging. "The amount of gas, electric and HVAC that a kitchen like this requires is far beyond what a school is ever originally designed for," says Sedej. "The engineers have to get creative to bring all of those utilities in at the levels required. What was there was very minimal."

In the new space, many of the utility

lines feed up through the floor but the exhaust system was trickier. "Schools are never designed for commercial exhaust hoods," she says. Because this is a teaching kitchen, communication is key and it was imperative that the cooking stations be located under an island canopy to ensure students and teachers could see and hear each other and interact. "Once you go with an island-style hood, it dramatically increases the CFMs the hood pulls. So, the challenge was taking that much air out of the space, finding the best option for the duct run, and figuring out a way to get enough makeup air back in to ensure pressure balance."

Dual Function

The new design includes an adjacent classroom that can also function as a dining room. Sedej was able to find the

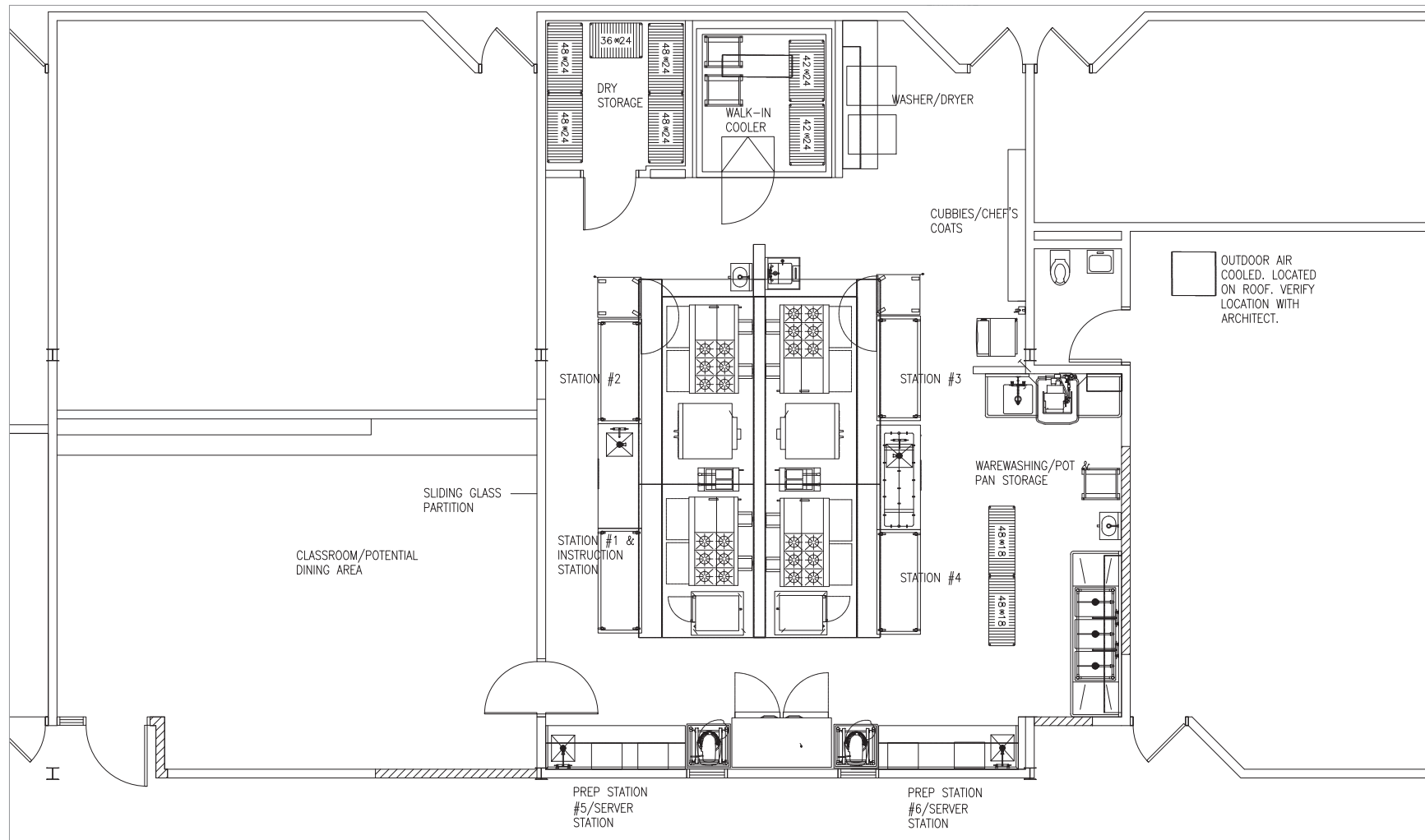
extra square footage by incorporating former office space but she also had to find a way to connect the teaching kitchen with the classroom. "We needed to create a learning environment that allows students to be able to see when a teacher is demonstrating something in the kitchen, but also includes an area for those days when it's just teacher instruction time or pure classroom time," she says. If an instructor is at a kitchen station, classrooms often will position a mirror over the demo area, through which students can observe the instructor's actions. In other projects, Sedej says she has achieved this dual function with windows that look into a kitchen or by using mobile tables in the kitchens that can double as desks.

For the Crystal Lake South High School Culinary Arts Center, howev-

er, Sedej came up with a sliding glass wall between the kitchen lab and the classroom. When it's open, there's direct connectivity between the seating area and the kitchen and the teacher. The instructor can address the class while working at the equipment, and students can approach as well.

When the glass wall is closed, the space becomes a traditional classroom, a dining room, a pop-up restaurant, or a place for catered events, but with a view to the activity in the kitchen.

"By focusing on the need for connection and the ability to open and close the wall, we created something special here," she says, adding that other schools have visited Crystal Lake South High School Culinary Arts Center and requested something similar for their own spaces.



Key Equipment

Cold Storage

- Cambro shelving
- New Age racks
- Thermo-Kool walk-in coolers

Cook Stations

- Nationwide worktables
- Southbend/Middleby 6-burner ranges w/oven, griddles w/oven, convection ovens
- Ansul fire suppression system
- Streivor hoods
- Pitco/Middleby gas fryers
- Groen/Unified Brands steamers

Prep Station

- FWE humidified hot holding cabinets

- Nationwide tables, shelf, stand, back counter
- Globe/Middleby counter mixer
- Continental refrig. reach-in freezer
- Microwave ovens (existing)

Beverage

- OptiPure water filtration system
- Manitowoc/Welbilt ice maker

Warewashing

- Champion/Alf Group dishmachine
- Whirlpool washer, dryer
- Nationwide 3-comp. sink, tables

Throughout

- Fisher faucets, drains
- Eagle Group hand sinks

At A Glance

■ **Facility:** Crystal Lake South High School, Crystal Lake, Ill.

■ **Project:** Culinary Arts Center

■ **Design Consultants:** Kristin Sedej, FCSI, Principal; Peg Galie, Project Coordinator; Amber Kennedy, CAD, S2O Consultants, Chicago

■ **Total Budget:** \$1 million

■ **Foodservice Equipment Portion:** \$250,000

■ **Scope of Work:** Concept Development, Master Planning, Space Allocation, Preliminary & Detailed Design, Specification Writing, Site Inspection

■ **Architects:** Josh L. Czerniak, AIA, LEED AP

BD+C, Sr. Assoc.; Bryan Walsh, AIA, Sr. Assoc.; FGM Architects, Crystal Lake, Ill.

■ **Engineer:** Daniel Riese, P.E., CS2 Design Group, Elk Grove Village, Ill.

■ **Fabricator:** Nationwide, Northglenn, Colo.

■ **Dealer/Foodservice Equipment Contractor:** Boelter Cos., Chicago

■ **Other Key Firms:** Michelle Kidd, Industry and Careers Divisional Leader, Crystal Lake South High School; Jeff Daurer, Dir. Of Operations, Community High School District 155, Crystal Lake, Ill. 🌐