

DESIGNING FOR FOOD SAFETY

IMPLEMENTING FOOD SERVICE SAFETY STRATEGIES FOR FOOD BUSINESSES



FOOD STRATEGY

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FOOD POISONING IS A SERIOUS THREAT TO YOUR BUSINESS

Every year, 1 in 5 Australians are affected by food-borne illnesses and more than 30,000 people in Australia get hospitalised due to food poisoning. With Australians spending approximately 30% more on eating out than they were 8 years ago, this makes it more important than ever for food businesses to prioritise food safety.

Food safety compliance can save your business from causing a food-borne illness outbreak, which could potentially cost you hundreds and thousands of dollars. The cost of non-compliance to food safety standards can result in fines, loss of profit, and extensive damage to brand credibility.

In Brisbane alone, fines go as high as \$30,000 depending on the extent of the violation. Other states in Australia are also strictly implementing and enforcing local, state and federal food safety standards.

Dining establishments have been subject to temporary or permanent closure, and cancellation of permits due to noncompliance. Those that have reopened found it challenging to bring customers back into their business.

At the end of the day, it costs less to actually follow food safety standards. Compliance saves lives and saves your business thousands of dollars. Implementing effective food safety strategies - from kitchen design and fitout, to storage, preparation and disposal of food items - minimises the risk of food poisoning in your kitchen.



FOOD SERVICE SAFETY BEGINS AT THE DESIGN LEVEL

Food service safety implementation starts with a smart commercial kitchen design. Food production area designs should allow for maximum productivity and efficiency as well as promote food safety practices.

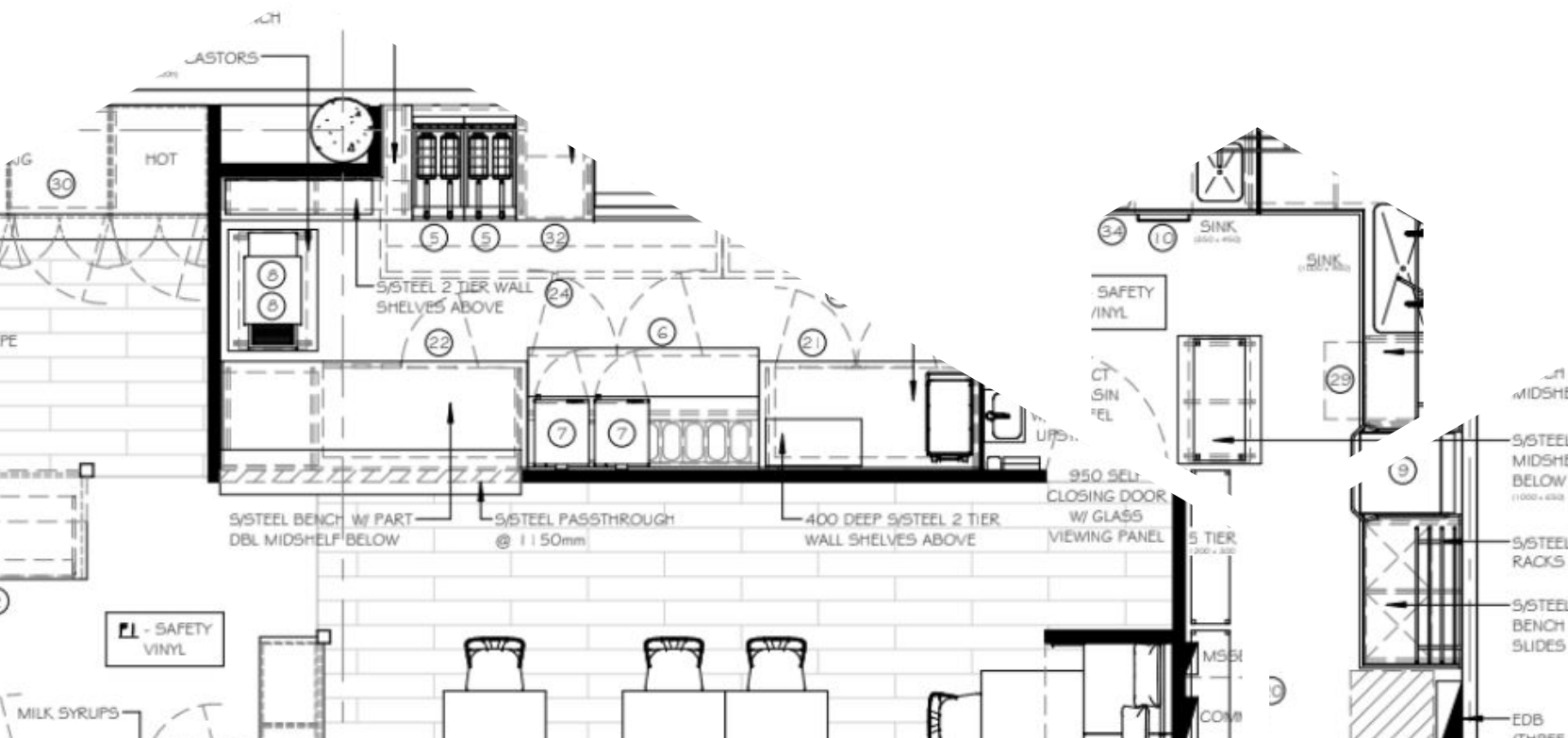
As an example, servers should never have to go through the dirty dish section of the kitchen (scullery) as they take food to customers. Walking through this area increases the risk of food contamination. The placement of the sink should also be kept separate from food prep areas but still accessible enough so staff can wash their hands as frequently as possible.



A design flaw may lead to serious food safety breaches. When designing food safe premises, consider:

- Cross-contamination
- Cross-contact

Your establishment should be appropriate for the type and volume of food that will be prepared and served. The kitchen should have ample space for all equipment to be used, and the activities done in relation to food preparation, delivery, storage and disposal. The kitchen should also allow for easy and effective sanitation, and the premises kept free from contaminants, including pests.



COMPLIANCE TO FOOD SAFETY STANDARDS SHOULD BE TOP OF MIND

Licensable food businesses are required to comply with Food Safety Standard 3.2.3 Food Premises and Equipment of the Australian New Zealand Food Standards Code, as well as other legislation and requirements from state and local governments.

Planning appropriately for safety-compliant premises is key to the success of any food service safety plan. A proper fitout facilitates easier workflow, cleanup and maintenance which, in turn, promotes safe food preparation.



To get a copy of the Food Safety Standards and the Australia New Zealand Food Standards Code, visit: www.foodstandards.gov.au

The Food Standards Code articulates a set of food safety outcomes that food businesses are required to fulfill at every step of the design and construction process.

Starting your food business with standards-compliant premises also makes council approvals and audits a lot smoother. It would be a waste of time and money to go through all that trouble designing your commercial kitchen, only to find out that it doesn't meet regulations and isn't approved for construction.



SMALL DETAILS CAN HAVE HUGE FOOD SAFETY CONSEQUENCES

The smallest of design details can spell the difference between a food safety compliant kitchen and one that can put food safety at serious risk.

For instance, tile grout is used in controlled amounts on commercial kitchens because the more tile grout you use, the more likely it's going to chip. Chipping, cracks and holes can cause bacteria to grow in your walls and floors. A non-porous grout or use of other non-porous finishes can help mitigate this issue.

Floors should be fitted with drains to facilitate regular deep cleaning and your kitchen should have an adequate supply of hot water. Hot water is important for cleaning and sanitising hands, equipment and dishes. It's important to consider the size of the hot water tanks needed to meet your requirements.

Hand washing facilities should be easily accessible at mandated intervals around the kitchen. Hand washing basins must have potable warm water, liquid hand soap and disposable paper towels. They should also come with an impervious splashback at the minimum height to meet food safety standards.

Back of house lighting should be made of shatterproof glass. Ordinary light bulbs may break when exposed to high temperatures or when subjected to direct heat. If this happens, glass can contaminate the food and pose a safety risk. The use of a diffuser is also recommended to prevent the glass particles from scattering in the event of a breakage as well as to keep dust and pests from accumulating inside the light.



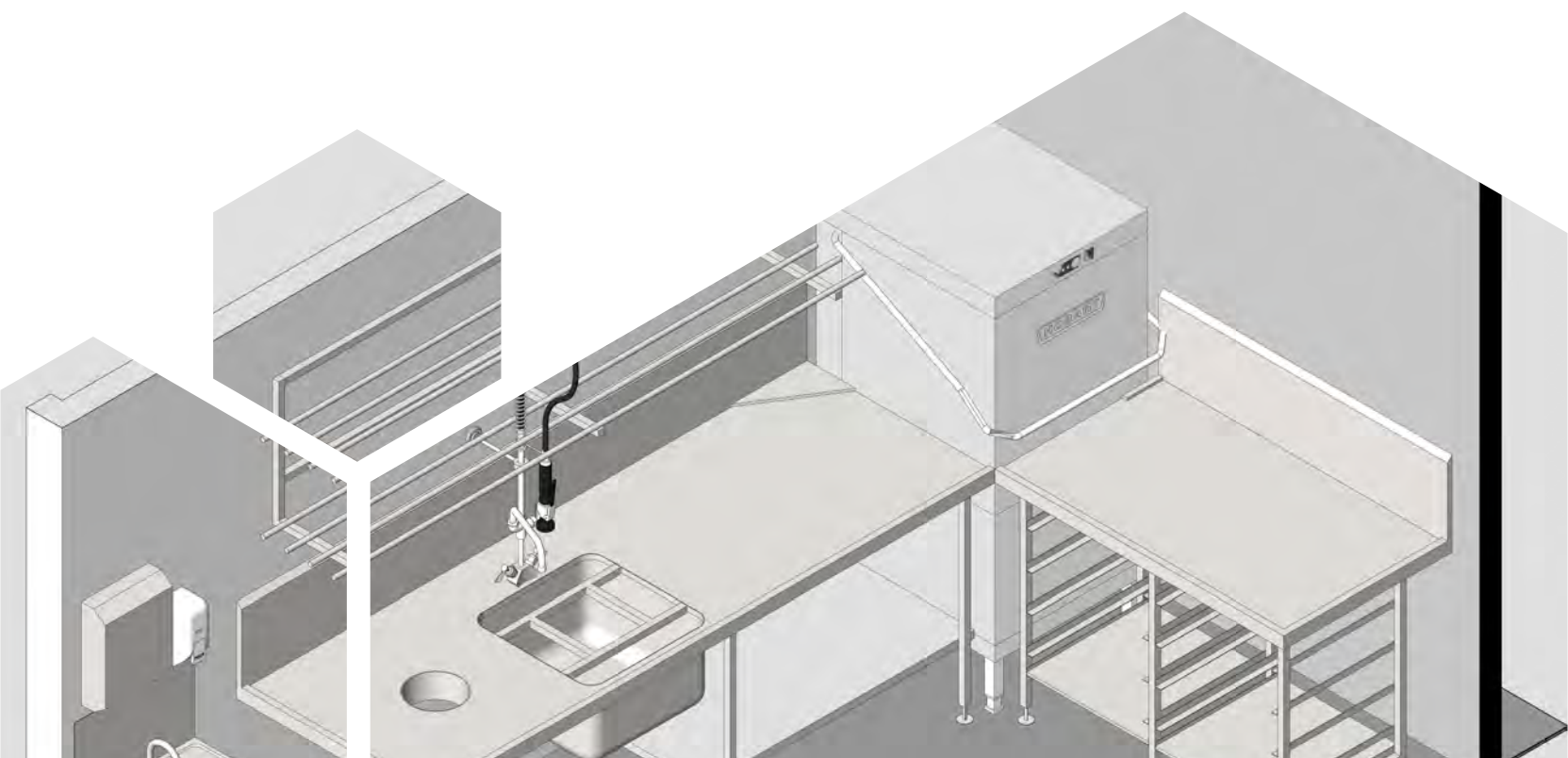
AN EFFICIENT KITCHEN DESIGN AND WORKFLOW MINIMISES THE RISK OF FOOD CONTAMINATION

When done correctly, the design and layout of your food business can streamline workflow, facilitate easier cleanups and prevent food from getting contaminated.

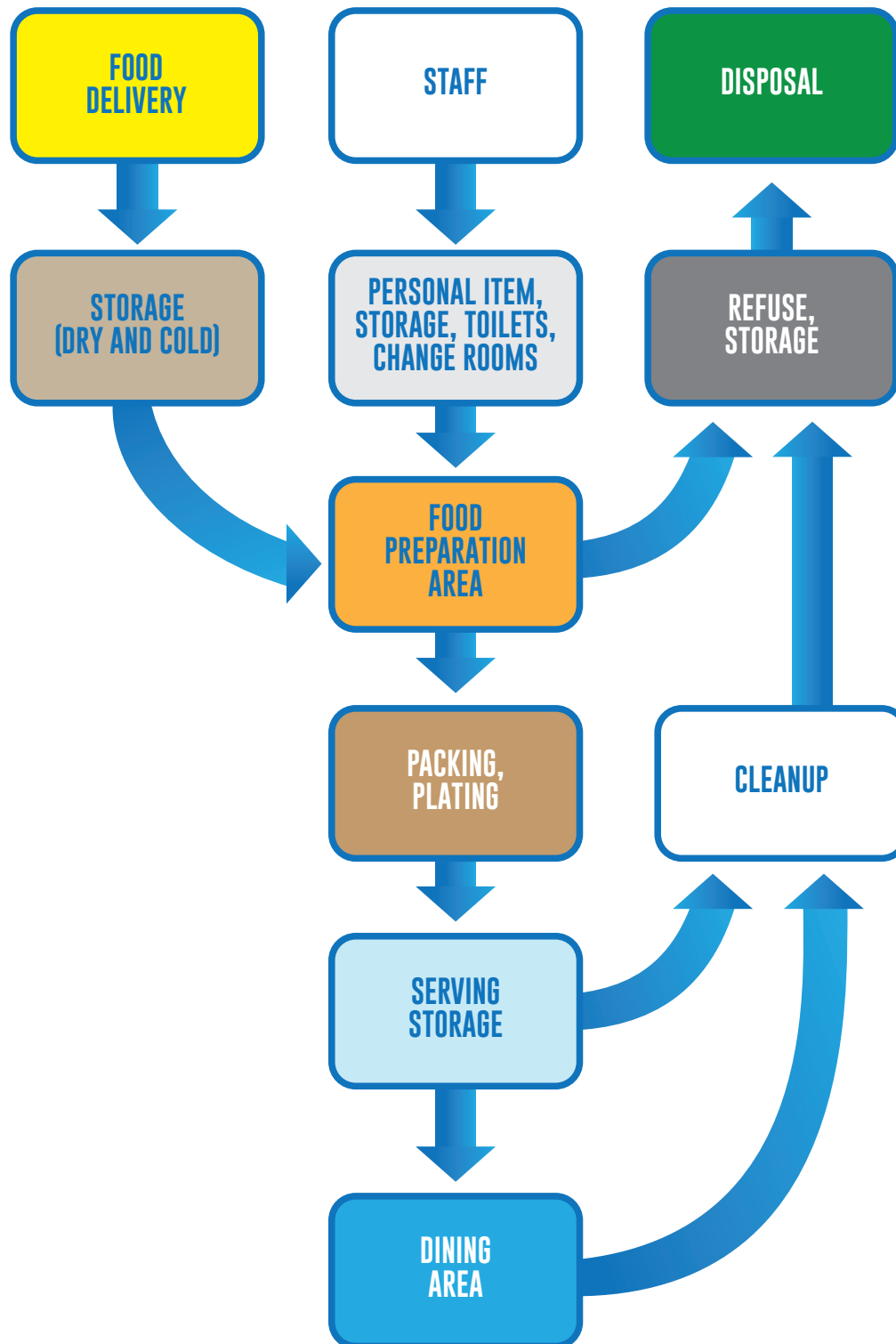
Ideally, kitchens should be designed to facilitate a linear workflow - food moves in one direction from receipt and storage to preparation, packaging, delivery and disposal. The diagram on the next page shows an example of how the flow of food and staff should move to prevent food contamination. However, there is no one-size-fits-all solution for food service and commercial kitchens.

A more streamlined design provides appropriate areas for efficiently cleaning and sanitising equipment and surfaces. Food businesses are expected to have a high standard of cleanliness in their premises because of the very nature of their industry.

Note that cleaning and sanitising are two different activities. Cleaning is to free surfaces and equipment from dust, dirt and food particles. Meanwhile, sanitising refers to the application of heat and/or chemicals to surfaces so that the microorganisms on these surfaces are reduced to a number that is food safe. It is essential that the facilities are thoroughly cleaned first before sanitation processes are initiated.



CORRECT WORKFLOW FOR FOOD AND STAFF IN A FOOD BUSINESS



**FOOD
SAFETY
PROGRAMS
(FSP)**



LICENSABLE FOOD BUSINESSES ARE ENCOURAGED TO HAVE A FOOD SAFETY PROGRAM

Food safety regulations may vary across different states but as a general rule, all licensed food businesses are encouraged to have a food safety supervisor and a council-accredited food safety program (FSP).

Moreover, the following licensed food businesses are required to have an accredited FSP:

- Those that do off-site catering
- Businesses whose primary activity is on-site catering at their premises
- Those whose primary activity is on-site catering in a part of their official premises as stated in their licence
- Establishments that serve potentially hazardous foods to six or more vulnerable persons



Potentially hazardous foods refer to food items that should be kept at a temperature of below 5°C or above 60°C to minimize the proliferation of bacteria. This includes raw and cooked meat, food containing meat, seafood except for live seafood, processed fruits and vegetables, cooked rice, food containing eggs, beans and nuts.

Serving to vulnerable persons include those in aged care, childcare and other similar facilities, catering as part of the operations of a hospital and similar establishments.

Accreditation of FSPs is done through the local council. For more information, contact the local government where you got your food business licence approved.



HACCP AS A MODEL FOR DESIGNING A FOOD SAFETY PROGRAM

Ideally, your food safety program should be HACCP compliant. HACCP features a systematic approach to food safety. Under HACCP, your food safety program should espouse the following principles to be deemed compliant:

- Hazard analysis
- Recognition of critical control points or areas in food production and preparation where risk is highest
- Critical limits
- Critical control monitoring
- Corrective action should a safety hazard arise
- Procedures for ensuring HACCP is implemented and practiced
- Recordkeeping



Ask your foodservice designer about HACCP compliance as soon as you start planning your food business. The best ones will be able to steer you in the right direction when it comes to customising your fit out according to HACCP standards.

Getting your food safety program properly sorted out makes health audits smoother. Remember that your food business may not be allowed to operate in the first place if your premises are not food safety compliant.



BEST PRACTICES



STAFF SHOULD BE TRAINED TO INSPECT FOOD AND IDENTIFY POSSIBLE SIGNS OF CONTAMINATION

Staff should be trained to be mindful of signs of food contamination and the growth of pathogenic bacteria in delivered items. A few measures to minimise food contamination include:

- Sourcing food from reputable suppliers
- Ensuring that the packaging is intact and the food does not have visible signs of contamination
- Inspect food and ensure that it has not deteriorated or it is not physically damaged
- Ensure that the food was delivered at a temperature that minimises the growth of bacteria

During food preparation, contaminants should also be removed from food ingredients. Fruits and vegetables, for example, should be thoroughly washed before use.

Potentially hazardous food that has been kept out of optimal storage conditions should either be refrigerated immediately if it has been out for less than 2 hours or used immediately if it has been out for a maximum of 4 hours. Toss any food that has been left out for more than 4 hours.

Frozen food should be defrosted properly by moving it to the refrigerator 24 hours beforehand.



OBSERVE CORRECT PROCEDURES FOR REHEATING, COOLING AND DISPLAYING FOOD

Cooling. Potentially hazardous food should be cooled down as quickly as possible. Food temperature should go from 60°C down to 21°C in 2 hours and reduced to 5°C over the next four hours. To do this, you must transfer food to shallow containers.

Placing the food in the refrigerator as soon as it is cooked is unnecessary. You can leave food to cool at room temperature until its temperature goes down to 60°C as long as you do not leave it to sit for 4 hours. Place food on rack shelves rather than solid ones so air can move around and cool the food quickly. Using blast chillers is also highly recommended for cooling a huge amount of food.

Reheating. Hazardous food should be reheated to 60°C quickly to minimise the amount of time for bacteria to proliferate. Never reheat food in bain marie containers. Food placed in these containers should already be hot. Heat the food in smaller quantities and only once.

Displaying. Food that is displayed for self-service should be supervised at all times. Serving utensils should be provided and protective barriers installed to minimise the risk of contamination. Ready to eat food should also be displayed in enclosed or wrapped counters. If you're displaying frozen food, ensure that the food stays frozen in the display cabinets. Cold food such as sandwiches and salads should be displayed and served at 5°C temperature. Make sure to record the temperature of the food items being displayed at least twice a day.



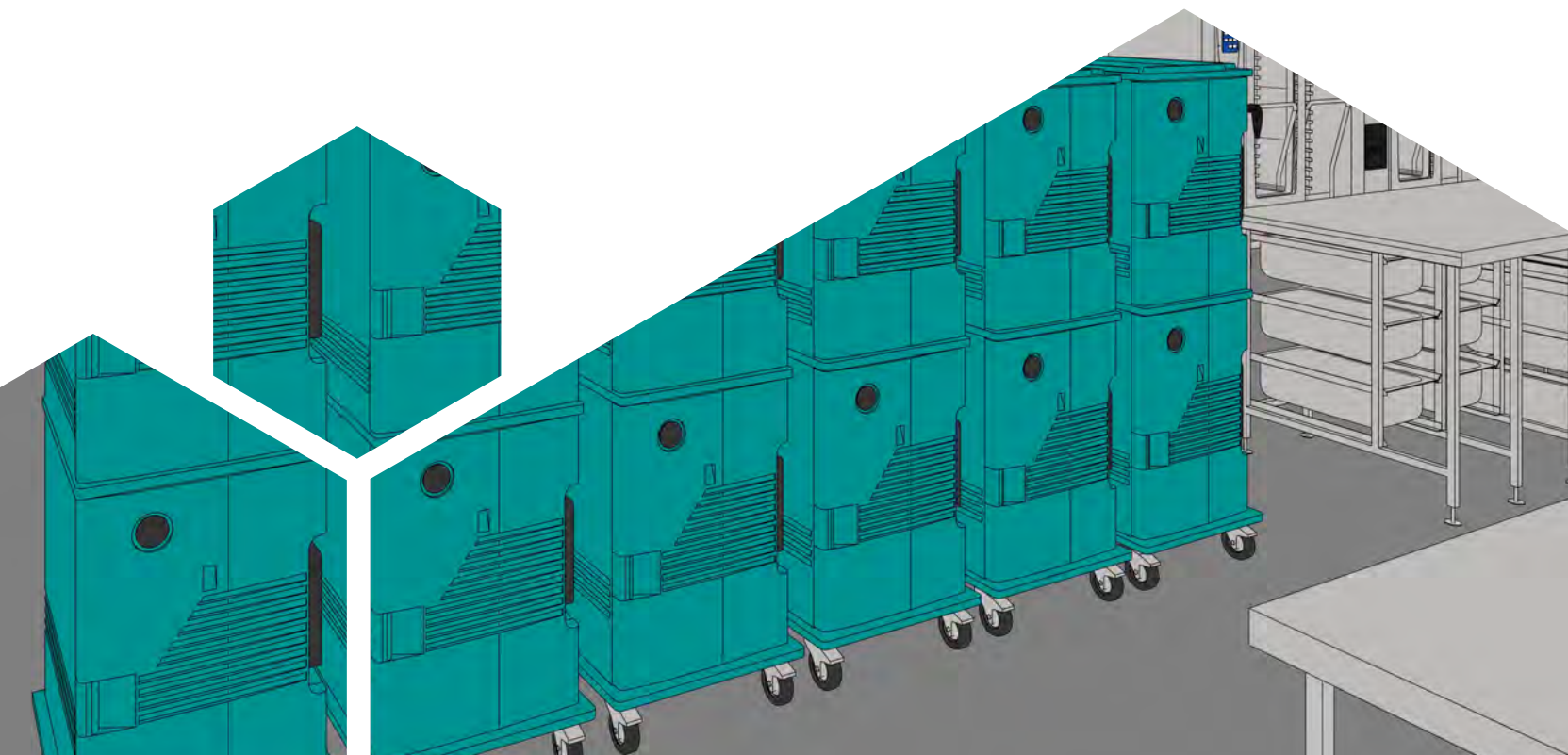
TRANSPORTATION AND DISPOSAL OF FOOD ARE PART OF MAINTAINING FOOD SAFETY

Cross contamination can occur when transporting food. To prevent pathogens and bacteria from spreading, hot food should be transported at a temperature of 60°C or above particularly if it will not be consumed within 2 hours. Chilled food should be kept at a temperature of 5°C during transport. All transported food must be kept in sealed containers to prevent cross contamination.

Specialised facilities, such as aged care centres, use insulated plate bases and covers to protect the food during transport and prevent heat from escaping quickly. Tray retherm systems are used for meals prepared in controlled and chilled environments. Insulated trolleys and carts deliver meals to seniors who eat in their rooms instead of the common dining areas.

Caterers serving food outdoors should transport food in food-safe containers and store it in a sanitized location. To prevent cross-contamination, different types of food should be kept separate from one another during transport.

By the same vein, care should be observed when disposing of food that is suspected to be unsafe or unsuitable. Food businesses are required to have proper recall systems in place for stopping the sale and distribution of hazardous food that is unsuitable for public consumption.



CLEANING AND MAINTAINING THE FOOD PREMISES MINIMISES THE LIKELIHOOD OF FOOD CONTAMINATION

Appropriate sanitation methods around your premises can also contribute to minimising the spread of infectious diseases caused by food contamination. As earlier mentioned, sanitising involves the use of chemicals, hot water or other processes to kill the bacteria on the surfaces that are in contact with food.

Manual sanitation requires a temperature of 77°C. This temperature must be maintained on the areas being sanitised for at least 30 seconds. Meanwhile, if you are using chemical sanitation processes, make sure that the chemicals used are suitable for utensils, equipment and surfaces that come into contact with food.

Other sanitation processes include dry steam cleaning, using pulsed electric fields, electrolyzed water and irradiation. It is important to note, however, dirt reduces the effectiveness of sanitation. Sanitisers will not work unless the surfaces are thoroughly cleaned first.

Chips, breaks and cracks on equipment can also be food safety risks. Dirt and food particles can get stuck in the cracks and breaks of utensils, making cleaning and sanitising trickier than usual. If the equipment is not thoroughly and effectively cleaned, transmission of food-borne diseases becomes a huge possibility.

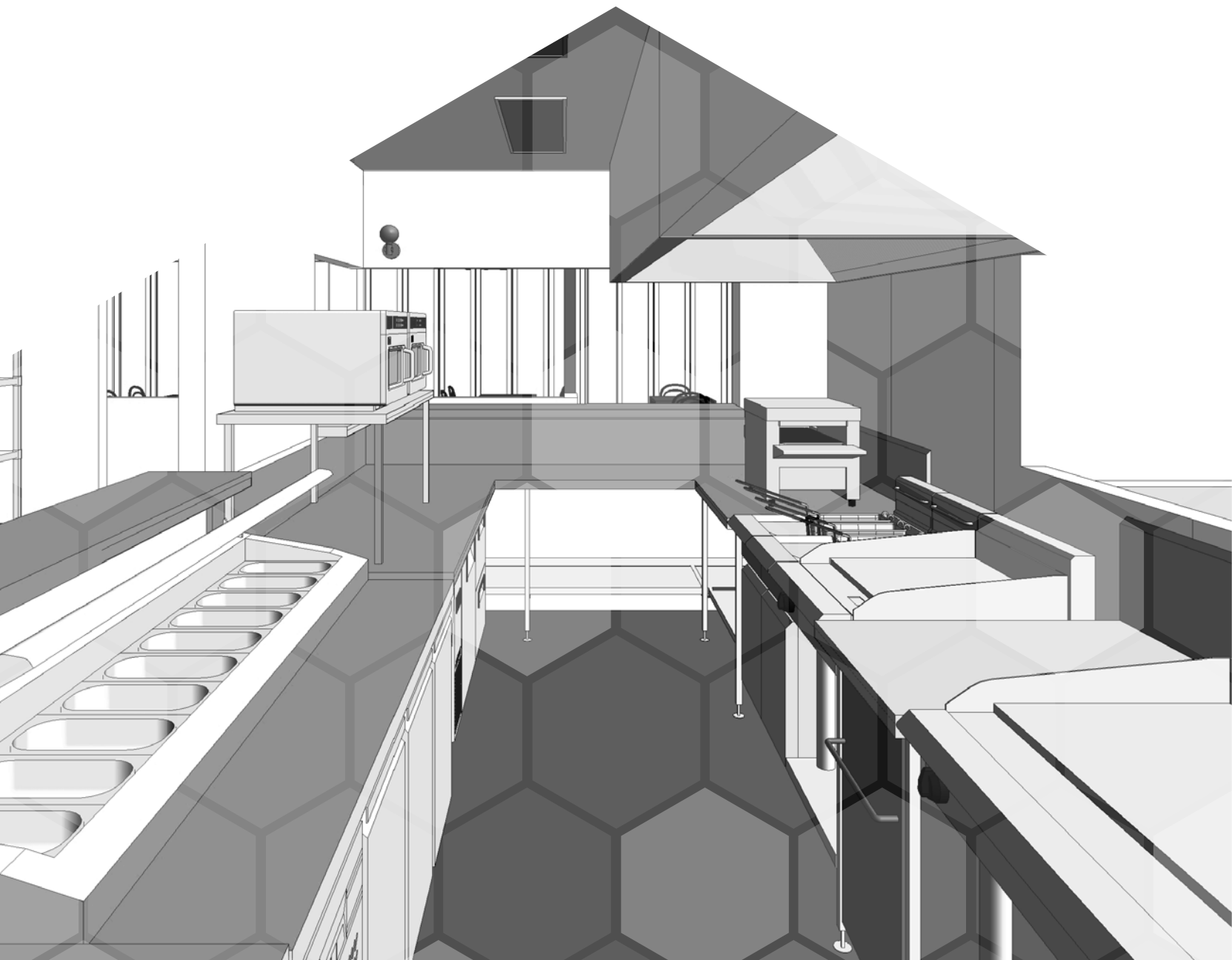


TO WRAP UP

Food service design that promotes food safety is the first step on the road to food safety compliance. Maintaining food safety throughout your business and implementing a suitable food safety program is crucial to the success of any hospitality venture.

When your premises are designed for food safety, compliance is easier. Getting food safety wrong can cost time and money - get it right the first time with smart, safe food service design.

For more on food safety, watch the short videos in our free [Commercial Food Safety Mini Series](#).





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