Guidelines to:-
AS 4674-2004 Design, Construction and Fit-out of Food Premises.

Well designed food premises assist in the safe and efficient preparation of food. This section deals with the design and construction principles applicable to food premises which will help in good premises hygiene and sanitation.

1.1 There needs to be an adequate working space for the satisfactory performance of food handling preparation.

1.2 The design and layout of the premises and equipment should facilitate safe and hygienic food processing.

1.3 Suitable washing facilities (sinks) should be provided for cleansing of utensils and equipment and be proved with:
   - Hot and cold water
   - An integral drainer to one side

   Sinks installed next to wall surfaces should be provided with integral flashing to prevent splashing and damage.

1.4 The premises requires the provision of a commercial supply of continuous hot and cold potable water of adequate volume and pressure.
1.5 All materials used in the construction of any food premises and all equipment and appliances need to be:

- Hard wearing
- Non-toxic
- Smooth surfaced (consistent with safety in the case of floors)
- Corrosion resistant
- Water resistant
- Resistant to, or protected from, impact
- Easily cleaned
- Resistant to chipping and flaking
- Of a finish which makes contamination clearly visible
- Constructed such that joints are effectively sealed.
1.6 The design, construction, installation and use of equipment and fittings needs to ensure the prevention of food contamination. The equipment and fittings should be constructed and installed in a way that permits effective cleaning of the premises or equipment, such as by:

- Equipment sitting on benches must be movable by one person or sealed to the bench in a manner that eliminates any open joint, space, crevice or cavity.
- Raising equipment 150mm off the floor or by mounting on castors.

1.7 Construction should be designed to exclude:

- The entrance of any animal and insects. Exclusion may be achieved by way of self closing doors, fly-proof window screens, air curtains, plastic strips and so on.
- Any harbourage of vermin
- Environment contaminants, including dust.

1.8 Lighting needs to comply with the Australian Standard for Interior Lighting and the Visual Environment and should be sufficient to enable hygienic and safe handling and preparation and cooking of food.

Light fittings should not allow food contamination in the event of the globe or tube shattering and should not harbor dirt, dust or insects or be difficult to clean.

1.9 Where cooking is done in any food premises, a suitable mechanical exhaust ventilation system needs to be provided.

A mechanical exhaust ventilation system complying with the requirements of AS1668.1 and AS1688.2 will satisfy this requirement.

1.10 Ceilings are to be provided in all rooms of the food premises, be easy to clean and be constructed to prevent the accumulation of dirt.

1.11 Associated installations, equipment and fittings are required to be effectively cleaned.

**Exhaust Canopy with fat filters**

**Raised equipment 150mm off the floor**
1.12 Consideration must be given to the storage of garbage and recycling materials so that:

- Appropriate containers are utilised which are easily cleaned and pest-proofed
- Putrescible garbage or recycling is stored externally or within a separate room that meets the following criteria:
  - Impervious floors and walls with covered intersections
  - Graded floor which drains to a floor waste
  - Ventilated
  - Pest proofed
  - Tap with hose for cleaning

**Food Hygiene**

A physical environment so equipped as to assist the hygienic handling of food products.

It is important that food handlers have high standards of personal hygiene when working with food. To achieve this outcome, it is important that the following and provided in all food preparation and associated areas within the premises.

2.1 Hand washing facilities that are:

- Provided with hot and cold water from a central outlet.
- Provided with hand drying facilities that do not contaminate washed hands or the surrounding areas.
  - E.g. a single use towel dispenser
  - A receptacle for used towels must also be provided

Hand basin provided with warm running water, paper towelling and liquid soap.
DESIGN, CONSTRUCTION AND FIT-OUT OF FOOD PREMISES -
Australian Standard 4674-2004

Coving
Coving is required to help with cleaning to reduce the build up of dirt, grease, etc., at the wall/floor junction.

- coving must be installed at the intersection that connects the floors with walls/plinths (Figure 1).
- it needs to be integrated to the surface finish of both floor and wall so it forms a continuous uninterrupted surface.
  Note: Feather edge skirting is not permitted as a coving.
- a solid performed coving fillet should be used to support vinyl or similar sheeting used to form a cove (Figure 2).

Walls and Ceilings
- walls of all food premises need to be of solid construction to prevent access and harbourage of pests.
- walls made from preformed panels must be filled with suitable material to meet the requirements.

Material Suitability of Wall Finishes for Food Premises Areas
- stainless steel, ceramic tiles, vinyl sheets, pre-formed panels and trowelled cement may be used in all areas.
  Note: trowelled cement cannot be used in wet washed areas.
- painted plaster, painted brickwork and concrete may be used to finish the walls of the store rooms, bin storage and eating areas.
- wood panelling and featured brick may also be used in eating areas.
- all finishing materials of the walls and ceiling surfaces must be a smooth, even surface to ensure contaminants do not build up on the wall surface and allow adequate cleaning.
  Note: walls and ceilings should be finished in a light colour to facilitate cleaning except for eating areas.

Material Suitability of Ceiling Finishes for Food Premises Areas
- ceilings should be finished with impervious sealed materials.
- painted plaster, steel sheet and trowelled cement can be used in all areas except for chillers/freezers.
- pre-formed panels may be used in all areas as a ceiling finisher.
- Drop in panels (false ceilings) are prohibited in food preparation or areas where open food is displayed/stored.

Pipes, Conduits and Electrical Wiring
Pipes, conduits and electrical wiring should be concealed or structured as shown on Figure 3 to allow adequate cleaning and reduce harbourage areas for pests.
Drainage

Appropriate drainage systems facilitate the removal of liquid wastes and odours so that they do not pose a health risk or nuisance.

An effective drainage system meets the following criteria:

3.1 Wet areas shall be evenly graded to a minimum of 1 in 100 fall towards the floor waste.

3.2 The drainage system should prevent storm water and other environmental contaminant, odours and vermin from entering the premises through that system and prevent the accumulation of waste or waste product.

3.3 Waste water from automatic washing equipment is required to be drained directly into the sewer.

3.4 Grease traps should not be installed in rooms used for preparation, processing, packing or storing of foods for sale, or where food equipment and packaging materials are stored.

3.5 Where practical, service pipes should be concealed beneath the surface of walls, floors and ceilings, or alternatively, pipes can be fixed clear of the wall, floor or ceiling at such distances that facilitates easy cleaning.

3.6 If offensive material or trade waste is stored outside, then a separate area should be provided which:
   - Is paved and easily cleanable
   - Is graded to drain to a sewer
   - Has a silt trap installed in the drain
   - Has a supply of water under pressure

3.7 Premises shall be provided with facilities for disposing of mop water and similar liquid waste. These facilities shall be:-
   - A cleaner’s sink or sluice sink
   - Other similar facility connected to drainage that is not intended for use to prepare food, wash any equipment or for hand/face/arms washing, and located outside of areas where open food is handled.

*Features of a Well Designed Food Preparation Area*
Food Storage Facilities

Safe food storage requires properly designed and constructed storerooms to store dried and canned foods safely to prevent contamination.

The following criteria apply:

4.1 Separate facilities should be provided for the exclusive storage of:
   - All processing and packaging materials
   - Ingredients

4.2 The storage of materials and ingredients needs to be stored in a manner to prevent contamination which may affect the quality of food products.

Cool rooms and Freezers

Proper construction of cool rooms and freezers maintain the quality of perishable food items that are stored on the premises by ensuring the food is safely stored at the right temperature to prevent contamination and deterioration.

Effective cool room design uses the following principals:

5.1 Cool room and freezer capacity should be of sufficient size to adequately hold the total quality of product on the premises.

5.2 Facilities for the freezing and storage of food products need to be constructed to operate at, and be capable of maintaining, an air temperature within the facility that complies with the manufacturer's instructions.

5.3 Cool rooms and freezers are required to be provided with shelving units to store cartons and containers of food products (tubs and trays) in order to prevent deterioration and contamination through floor contact, splash and drip from other products. The design of such facilities should not prevent the effective cleaning of the cool room or freezer.

5.4 Thermometers for the accurate monitoring and display of chiller and freezer temperatures need to be provided and operated always while cool rooms and freezers are in use.

5.5 Cooling unit discharge is required to be contained and directed to the sewer system.
Cleaning Facilities
It is important that the physical environment be constructed to ensure that all equipment is effectively cleaned and the cleaning process does not comprise the wholesomeness of food products. Surfaces require thorough cleansing to remove all food particles and harmful bacteria which may contaminate the food.

This objective is achievable with the inclusion of the following:

6.1 A designated wash area should be provided for the cleaning of appliances and equipment where such things as steam, splashes from wash water and cleaning chemicals used or produced during the cleaning process are a potential source of contamination of food products.

Such facilities need to be of a sufficient size to enable the storage of all unclean appliances and mobile equipment awaiting cleaning.

6.2 Facilities are required for the storage of clean equipment such as containers, trays, tubs and equipment to protect them from contamination.

Staff Amenities
Adequate change room facilities should be provided for all staff for the storage of personal effects and clothing, but must adhere to the following condition:

7.1 The location of staff amenities must not compromise hygienic food processing.

Maintenance
To prevent food contamination and to ensure food quality is not affected, the food premises and food equipment must be properly maintained. It is also a key aspect of any quality assurance system.

8.1 The maintenance of premises and equipment must:
- Ensure equipment is in a proper state of operational adjustment
- Ensure that defects or damages are repaired according to good practice
- Ensure repaired items are in good working order

Appendix 1: Examples of Approved Surface Finish Materials
Floors – concrete rendered and finished with welded sheet vinyl, quarry tiles with epoxy grouting, or welded sheet vinyl over an approved thickness of fibro cement sheeting.

Counters and Benches – stainless steel, timber and laminex.

Shelving – glass, stainless steel, timber or other approved materials.

Sinks – stainless steel, ceramic.

Walls and ceilings – fibrous plaster, cement sheeting, smooth rendered masonry, fiberglass sheeting.

Work surfaces – finished with stainless steel and laminated plastics.