

Grease Interceptor Design Criteria

Technical Specifications

A. Shall be approved by the Community Compliance Supervisor or designee. The application for authorization to construct shall be signed by the owner, proprietor or responsible official, and include:

- a. Contact information for the owner, proprietor or responsible official
- b. Address of the facility
- c. A drawing showing the location of the building, kitchen, interceptor, and traffic ways.
- d. The manufacturer's model number and specifications.
- e. A list of all plumbing fixtures plumbed to the interceptor including the drainage fixtures units (DFU) and trap size of each fixture.

B. Shall be in-ground, exterior installation, and readily accessible for unhindered maintenance and inspection.

C. Shall be sized to achieve a minimum 20 minute detention-time. Interceptor volume required to achieve 20 minute detention-time is calculated by: $V=Q \times 20$

- a. V is the required wetted volume of interceptor in gallons
- b. Q is theoretical flow rate into the interceptor in gallons per minute (Gp.m.). The theoretical flow rate is determined by summing the DFUs, as specified in the International Plumbing Code (IPC), of all fixtures plumbed to the interceptor and converting to Gp.m. (2 DFU = 1 Gp.m.). For automatic dishwashers and similar fixtures the manufacturer's discharge flow rating may be used.

D. Shall have inlet and outlet tees. The inlet tee shall be sized to match the service (a minimum of 3 inches in diameter) and the length shall extend 25% (20% to 30% allowed) into the liquid depth. The outlet tee shall be 6 inches in diameter and the length shall extend 50% (45% to 55% allowed) into the liquid depth.

E. Shall have a means to slow the flow to avoid short-circuiting, such as a baffle system and dual sweep tee.

F. Shall have at least 9 inches of freeboard above the liquid surface.

G. Shall have access openings over the inlet, outlet, and each compartment within the grease interceptor. Each opening shall be twenty-four (24) inches in diameter and contain pick holes. Shall be stormwater infiltration proof. Manholes or covers shall extend to the finished grade.

H. Shall be designed to handle traffic-bearing loads when located in vehicular travel ways. Interceptors in non-vehicular areas shall be at least pedestrian load bearing.

I. Shall be vented in accordance with the IPC as adopted by North Carolina.

J. Plumbing fixtures connected to the interceptor shall have baskets, screens, or other intercepting devices to prevent passage into the drainage system of solids ½ inch or larger in

size. The baskets, screens, or devices shall be removable for cleaning purposes.

K. Waste from food grinders shall discharge through a solids interceptor prior to entering the grease interceptor. All other fixtures and drains (except those not exposed to grease laden sources) receiving kitchen or food preparation wastewater shall pass through the grease interceptor.

L. Interceptors that are cast-in-place, masonry tanks, or not a manufactured grease interceptor shall be designed by a professional engineer licensed by North Carolina.

M. A proposed nonconventional interceptor may be evaluated and approved on a case by case basis contingent upon proper sizing and documentation demonstrating grease removal efficiencies are equivalent to a conventional interceptor.

Installation Requests

A request to install an interior interceptor, interior trap or automatic grease removal devices shall include a design plan certified by a professional architect, engineer or plumber, licensed by North Carolina, demonstrating that there is inadequate space for exterior installation.

Inadequate space considerations include: legal property boundary restrictions, utility conflicts that cannot be relocated, proximity to the building and its foundation, or overhead obstacles.