A G E N D A
10-10-19 INFRASTRUCTURE COMMITTEE
October 10, 2019 at 5:30 PM

Call to Order

Approval of Minutes

1. Approval of Draft Minutes from 9-26-19.

Old Business

2. Median Water

3. Status of the Backflow Prevention and Grease Management Program

New Business

4. Solar Project at Waste-Water Treatment Plant

5. One Big Water Meter and Backflow Prevention Devices at Condos and Apartments

6. Derelict Houses

7. Lights for Soccer Field in Memorial Park

8. Soccer Field in Jaycee Park

9. Jones Shoulder Drop-offs

City Manager Comments

10. Capital Projects Spreadsheet from City Manager

11. 17th St. and Inlet Ave. Sewer Project

Adjournment

Individuals with disabilities who require certain accommodations in order to allow them to observe and/or participate in this meeting, or who have questions regarding the accessibility of the meeting or the facilities are required to contact Jan LeViner at 912.472.5080 promptly to allow the City to make reasonable accommodations for those persons.

City of Tybee

Infrastructure Committee

Draft Notes from 9/26/19 Meeting

In attendance: Barry Brown, Monty Parks, Shawn Gillen, George Shaw, Peter Gulbronson, Kevin Smith, Jared Smith, Stanley Bearden, Shari Haynes, Kevin Smith, Jared Smith, Alice Jonsson

Barry Brown called the meeting to order at 5:30 PM.

Monty Parks made a motion to approve the minutes from Aug. 08, 2019. Barry Brown seconded. Motion approved.

Update on Waterlines East of Butler: Stanley Bearden gave an update on which streets are finished, in-process, and upcoming. Just finished Tybee Straits and needs to be repaved, get back over to 2nd Terrace, then lateral lines on Van Horn, then back to Butler. There are over forty streets to be done. We have six or seven done. Two won't need to be replaced because they passed pressure tests.

Backflow Preventers: Kevin Smith – met with Pete Gulbronson and Stanley Bearden last week. There are two or three immediate concerns on Highway 80. There will be some DOT collaboration and permitting. Phase two near Soloman. Went over myriad on-going and completed backflow and bladder projects.

Bright St. Drainage: Kevin Smith - Bids are in. Went over the bids. All of them are at or over budget. Shawn Gillen – recommendation: expenditure would be too large. We should fix ditch issue. For very little money we can fix the ditch by piping it in and covering it. It should fix the majority of the problems. Shift funds to fixing North Campbell, which we should start planning out. It will come from the same budget.

Monty Parks moved that they reject the bids for Bright St. and, using our own people, fix the ditch. Barry Seconded the motion. Motion passed so it will be brought before Council for approval.

Dunes Restoration Project Update: Shawn Gillen – met with USACE and went over all specs for projects. Bids are out. Should be back early Oct. Most likely will start pumping sand late November. Went over various stages of project, different bids, and different options. Went over locations where sand may be placed. The City pays for contractors to shape dunes using state money. Shawn Gillen explained that we will have a very large beach when the process is done.

LMIG Update: Peter Gulbronson – starting construction in three to four weeks – might add another three inches to Highway 80 where it floods.

Marsh Hen Trail Update: Peter Gulbronson - DPW did trimming on the trail itself per DNR request and cleaned out landscape debris. Group discussed myriad approaches to the trail that we could take. George Shaw – bids are out for Phase 2. Monty Parks, George Shaw, Shawn Gillen, Peter Gulbronson – don't want companies wasting their money doing bids when we may take a much more simple approach. Council needs to decide which approach to take.

Sewer Line Under 17th Update: Jared Smith – Six joints caused some issues. Said the predecessor laid the joints horizontally, so they needed to be fixed to function. They then discovered some water main issues. Pater Gulbronson spoke to the joint issues and the water main issues. Jared Smith – the manhole

will have to sit in the middle of the street. Group discussed the weakness of the water main and some strategies for protecting it short and long-term. Mr. Smith said shooting for two weeks to completion. Group discussed some clean-up issues.

Pressurized Water for Highway 80 Median: Peter Gulbronson – seem to be using more water than we thought so he is working hard to get to the bottom of the issue and have it fixed. Peter G. met with Thomas and Hutton about it and will be having more meetings with them about myriad median issues. Will update group at next meeting.

Selection of Streets for Next Round of LMIG: Shawn Gillen and group discussed potential next streets for paving. Streets need to be certified by the end of the calendar year. City will bring recs back to the group.

Review of CIP: Shawn Gillen – will be updating and bringing back to the group.

Monty Parks is anxious to see the drawings for the showers and plantings so that it will be completed by next tourist season. Shawn Gillen – they are completing the drawings.

Member of the public asked about volunteers for lead testing of water and asked about how much it costs to have our own crews weeding the median.

Monty Parks made a motion to adjourn. Barry Brown seconded. Motion passed and meeting adjourned at 6:20 PM.

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It's Everyone's Problem

By Tonya Chandler

Fats, oils & grease are more than a system operator's nightmare

Bacon! Who does not love bacon? Collection system operators, that's who.

With or without wipes, fats, oils and grease (FOG) are the bane of collection system operators worldwide. As we hear about fatbergs in London and New York, there is a growing need to control how FOG moves through our systems.

The first step to FOG control is trying to prevent its entrance into the system in the first place. Best practices for communities are great in theory, if they are followed. Grease traps and grease interceptors need to be maintained properly to work. All this depends on making sure that someone cares as much about the sewer lines as the operator.

When FOG enters the sewer lines, it is similar to bad cholesterol entering our blood stream. Any place it can find to deposit, it will because it can. This is true at major collection points, such as lift station and pump station wet wells. Buildup leads to clogging and clogging leads to sanitary sewer overflows. Municipalities install equipment to keep it suspended and mixed. Aerators are added to keep it from settling and also to add oxygen. Mixers are added in an effort to keep the top from crusting, fighting a losing battle until someone calls for the vac truck, and the operators get geared up for confined space entry and dirty work.

Chemical and biological treatments have been developed to reduce the frequency of these cleanings. Bacterial additives can reduce the biomass, however, even bugs can only eat so fast. Degreasers and dishwashing liquid can help disperse it.

Newer systems, such as mechanical well washers that work from above the water line, can reduce the frequency of cleanings and the need for multiple pieces of equipment, but they must be used system wide for the best effect. In the end, the grease still ends up at the wastewater treatment plant where it adds to the overall biological oxygen demand loadings, grease foaming and solids bulking. So, is there an answer on how to prevent the next fatberg? Give up bacon? Teach the community to make candles out of bacon grease and olive oil? Create a biofuel refinery? OK, that one may have merit.

We need to be realistic; the American culture is obsessed with bacon and fast food is not going anywhere, so it is up to us to teach the responsible disposal of FOG in our communities. Educating the community members is the only way to ensure that the FOG cholesterol does not enter into our sewer bloodstream. Enforcing regulations requiring grease traps and grease interceptors can help a community reduce its FOG greatly. Spill plans and disposal permits are important to controlling FOG. Pretreatment of industry waste and using technology such as dissolved air flotation can reduce the load added from industrial waste.

Just like the war on disposable wipes, communities must take a strong stand on how they dispose of FOG. Slogans like "down the drain, clogs a vein" can be effective in reminding people to dispose of grease in their solid waste receptacles. Hand out grease scrapers as a reminder.

Clever ideas can make an impact. Be proactive in the approach to how you prevent buildup. Well washers in the wet wells can keep the solids and FOG moving through the system, so they do not deposit in collections. Adding a bacterial element will help in the digestion and breakdown of the biomass, reducing the load at the headworks.

FOG can overwhelm bacteria systems at a headworks. Just like humans who can get lazy on a steady diet of fat, oil and grease, FOG fed to the wrong bacteria will make them react the same way a human couch potato does. Systems must look at where and how to properly dispose of FOG to ensure that one solution does not cause another problem.

This is not a utility problem without a solution, it is a community problem with a community solution. Utilities can only do so much to mitigate the FOG. The best solution is active prevention. WWD

Tonya Chandler is vice president of sales and marketing for Anue Water Technologies. Chandler can be reached at sales@anuewater.com.

Section 70-76 USE OF THE PUBLIC SEWER:

(a) Generally: No person shall cause harm to any part of the City's water or sewer system, nor discharge or cause to be discharged any storm water, surface water, groundwater, roof runoff, subsurface drainage cooling water, polluted or unpolluted industrial process waters to any sanitary sewer. Nor shall any person discharge or cause to be discharged to any sanitary sewer any other "prohibited discharges". When such discharges do occur, the person responsible shall be charged for the expenditures made by the city as a result thereof, plus shall be subject to section 1-1-8 General Penalties.

(b) Unpolluted Drainage: Storm water and all other unpolluted drainage shall be discharged to those sewers as are specifically designated as storm sewers or to a natural outlet approved by the Wastewater Superintendent. Industrial cooling water or unpolluted process waters may be discharged, upon approval of the Wastewater Superintendent, to a storm sewer or natural outlet.

(c) Prohibited Discharges: Except as herein provided, no person shall discharge or cause to be discharged any of the following described waters or wastes to any public sewer.

1. Any liquid or vapor having a temperature higher than one hundred forty (140) degrees Fahrenheit.
2. Any water or waste containing more than one hundred (100) milligrams per liter (mg/L) of fats, oils or greases.
3. Any gasoline, benzene, naphtha, fuel oil or other flammable or explosive liquid, solid or gas.
4. Any garbage that has not been properly shredded.
5. Any ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, paunch manure or any other solid or viscous substance capable of causing obstruction to the flow in sewers or other interference with the proper operation of the sewer system. This provision also includes ground or shredded paper products.
6. Any water or wastes having a pH lower than five and five tenths (5.5 su) or higher than nine (9 su) or having any other corrosive property capable of causing damage or hazard to structure, equipment, personnel of the sewer system or the Wastewater Plant.
7. Any waters or wastes containing a toxic or poisonous substance in sufficient quantity to injure or interfere with any sewer line or any sewage treatment process, constitute a hazard to humans or animals or create any hazard in the influent of the Wastewater Treatment Plant.
8. Any water or wastes containing Total Suspended Solids of any characteristic and quantity, so that unusual attention or expense is required to treat those materials at the Wastewater Treatment Plant.
9. Any noxious or malodorous gas or substance capable of creating a public nuisance, including hydrogen sulfide, nitrous oxide, and sulfur dioxide which shall be limited to less than one (1) mg/L. High concentrations of chlorine (greater than three (3)) mg/L shall also be prohibited.

(d) Interceptors:

1. Grease interceptors will be provided by all food service facilities. Oil and sand interceptors will be provided when in the opinion of the Wastewater Superintendent they are necessary for the proper handling of liquid wastes containing any flammable substances, sand and other harmful ingredients, except that those interceptors will not be required for private living quarters or dwelling units. All interceptors will be of a type and capacity outlined in the Grease Management program. Interceptors will be located and easily accessible as outlined in the Grease Management Program.
2. Grease and oil interceptors shall be constructed of impervious material capable of withstanding abrupt and extreme changes in temperature. They shall be of substantial construction, water tight and equipped with easily removable covers which when bolted in place shall be gas tight and water tight. Grease interceptors will be built and sized according to the Grease Management Plan.

(e) Maintenance of Interceptors: When installed, all grease, oil and sand interceptors will be maintained by the user at his or her expense in continuously efficient operation at all times. Required interceptor maintenance is explained in section five (5) of the Grease Management Program.

(f) Review and approval of certain discharge by the Wastewater Superintendent:

1. The Wastewater Superintendent must grant prior approval before the admission of any water or wastes having the following characteristics:
   (a) A five (5) day Biochemical Oxygen Demand (BOD) greater than two hundred fifty (250) mg/L.
   (b) Containing more than 300 mg/L of suspended solids.
   (c) Containing any quantity of substance having the characteristics described in subsection (c).
   (d) Having an average daily flow greater than two (2) percent of the average daily flow of the Wastewater Plant shall be subject to the review and approval of the Wastewater Superintendent.
2. Where necessary, in the opinion of the Wastewater Superintendent, the user shall provide at his or her expense, any preliminary treatment as may be necessary to:
   (a) Reduce the Bio Chemical Oxygen Demand (BOD) to two hundred fifty milligrams per liter (250 mg/L) ant suspended solids to three hundred milligrams per liter (300 mg/L)
   (b) Reduce objectionable characteristics or constituents to within the maximum limits provided for in subsection (c).
   (c) Control the quantities and rates of discharge of any water or wastes.
3. Plans, specifications and any other pertinent information relating to proposed preliminary treatment facilities shall be submitted for the approval of the Wastewater Superintendent and no construction of any facilities shall be commenced until this approval is obtained in writing.

(g**) Maintenance of Preliminary Treatment Facilities:** Where preliminary treatment facilities are provided for any waters or wastes, they shall be maintained continuously in satisfactory and effective operation by the user, at his or her expense.

(h) **Manholes:** The owner or user of any property served by a building sewer carrying industrial wastes shall install a suitable control manhole in the buildings sewer to facilitate observation, sampling and measurements of the wastes. This manhole shall easily accessible and safely located and be constructed in accordance with plans approved by the Superintendent. All new construction of facilities or a change of ownership or user shall be required to install a manhole as specified in this section.

(i**) Tests, etc. :** All measurements, tests and analyses of the characteristics is made in subsections (c) and (f) shall be determined in accordance with the latest approved volume of Standard Methods for Examination of Water and Wastewater and shall be determined at the control manhole as provided in subsection (h) or upon suitable samples taken at the control manhole. In the event existing facilities do not have a special manhole the nearest downstream manhole in the public sewer system will be used for the purpose of tests, sampling and measuring.

(j) **Special Agreements:** No statement contained in this section shall be construed as preventing any special agreement or arrangement between the city and any industrial concern whereby an industrial waste of unusual strength or characteristic may be accepted by the city for treatment, subject to payment therefor by the industrial concern. **(Code 1970, 20-45)(1997-60; 8/14/97)**

Section 70-77 Protection from Damage:

No unauthorized person shall maliciously, willfully or negligently break, damage, destroy, uncover, deface or tamper with any structure, appurtenance or equipment which is a part of the city sewage system. (Code 1970, 20-46)

Section 70-78 Power and Authority of Inspectors:

The Wastewater Superintendent and other duly authorized employees of the city, bearing proper credentials and identification, shall be permitted to enter upon all properties for the purpose of inspection, observation, measurement, sampling and testing, in accordance with the provisions of this chapter**. (Code 1970, 20-47)**

Section 70-79 Sewerage Service Billing, Collections and Penalties:

Bills for sewer service shall be administered as per section 6-1-15 and section 6-3-1. **(1997-61; 8/14/97)**

FIGURE P-1

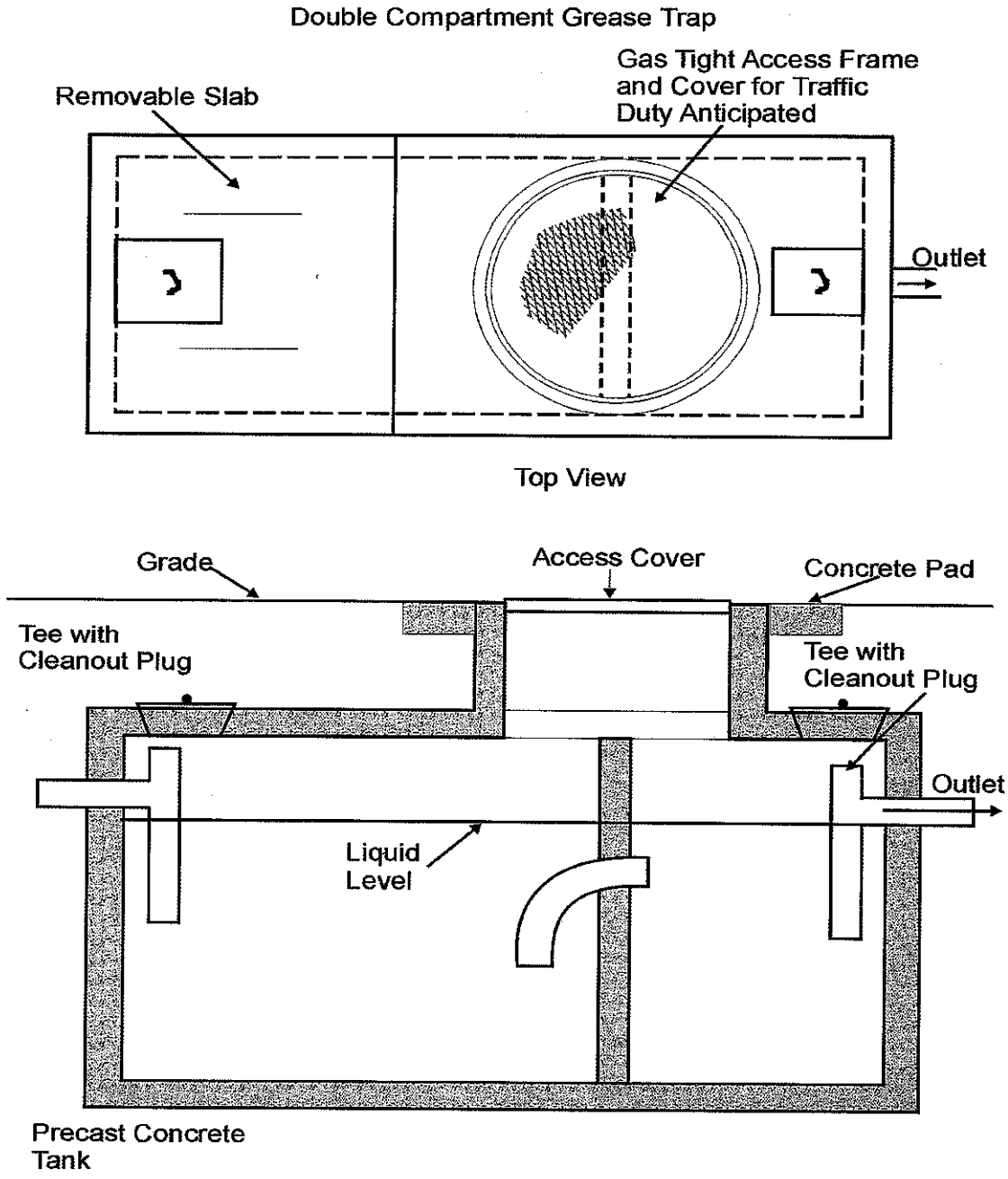
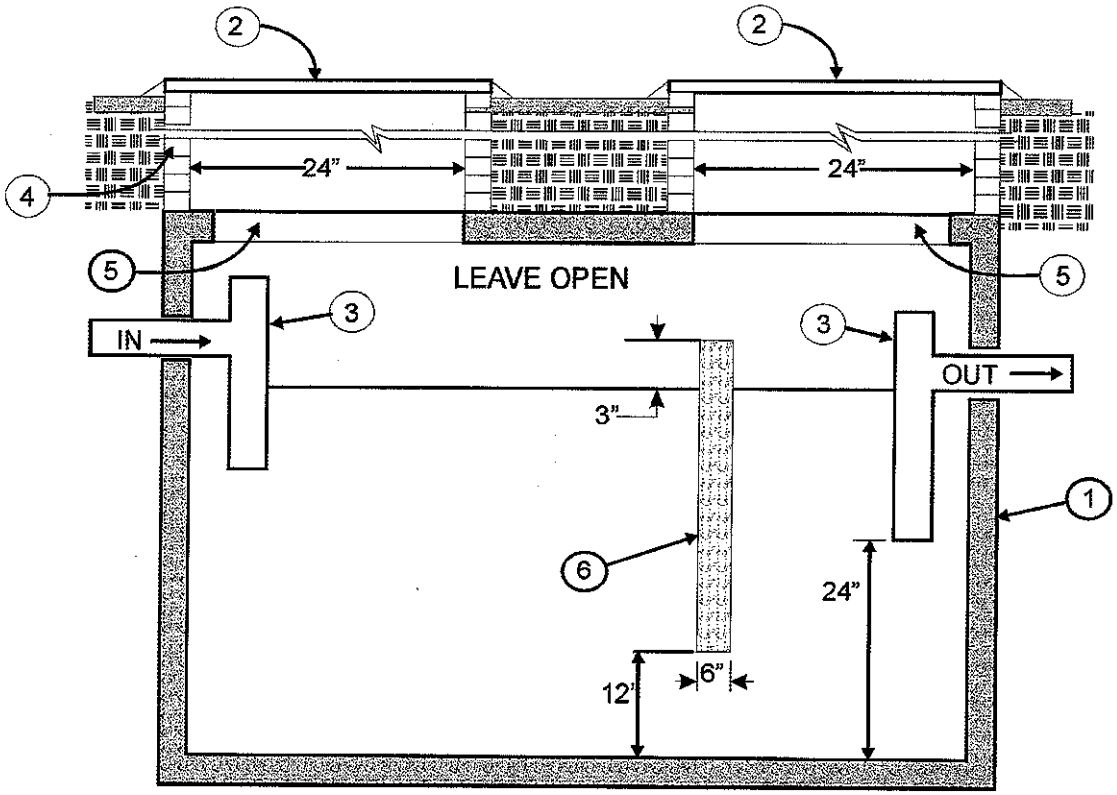

Double Compartment Grease Trap
Gas Tight Access Frame and Cover for Traffic Duty Anticipated
Removable Slab
Outlet
Top View
Grade
Access Cover
Concrete Pad
Tee with Cleanout Plug
Tee with Cleanout Plug
Outlet
Liquid Level
Precast Concrete Tank

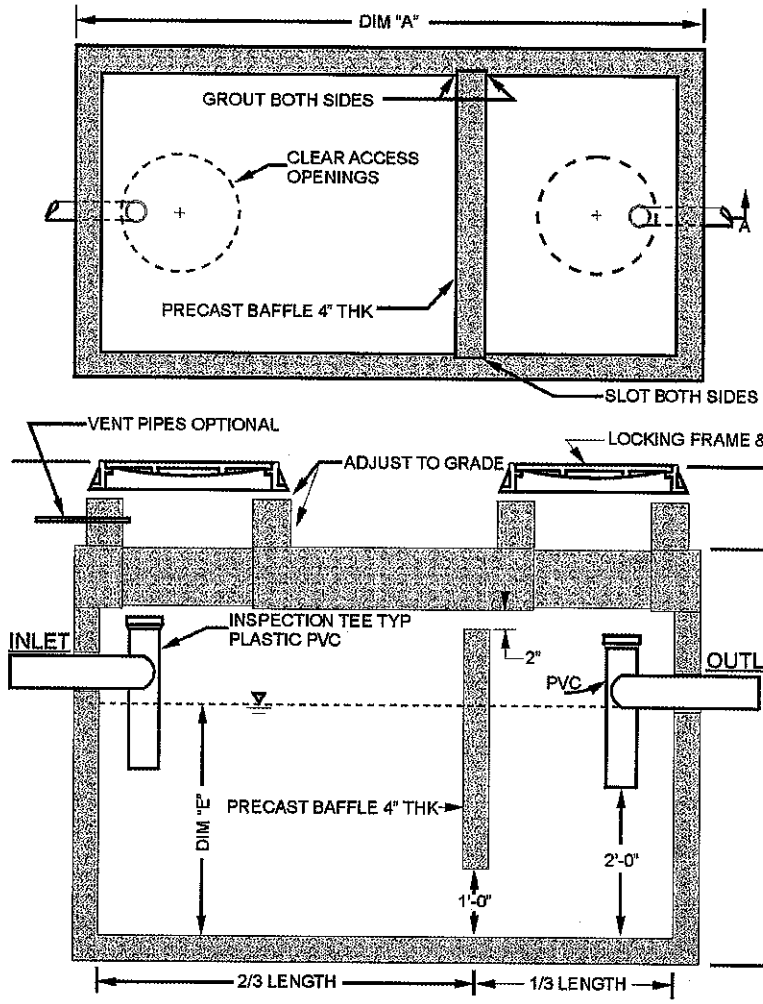
FIGURE P-2

STANDARD DESIGN GREASE INTERCEPTOR



1. PRECAST TANK, _____ GALLONS.
2. MANHOLE TOP AND RING, ONE OVER EACH SECTION.
3. PIPE AND FITTINGS OF APPROVED MATERIALS (SCHEDULE 40 PVC - MINIMUM)
4. BRICK UP TO GRADE. INSTALL MANHOLE STEPS 2'0" ON CENTER IF THE HEIGHT OF THE BRICK WORK IS GREATER THAN 4'0".
5. PROVIDE TOP SECTION WITH 24" DIAMETER OPENING AT EACH END OF THE TANK.
6. INSTALL CONCRETE BAFFLE IN TANK

FIGURE P-3



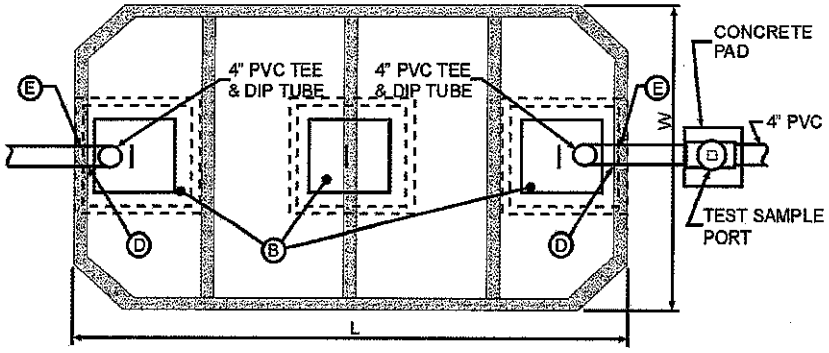
SIZING CHART					
GALLON CAPACITY	DIM "A"	DIM "B"	DIM "C"	DIM "D"	DIM "E"
600	7'-0"	4'-8"	7'-0"	3'-6"	3'-2"
750	7'-0"	4'-8"	7'-0"	4'-3"	3'-11"
1000	7'-0"	5'-0"	7'-2"	4'-4"	3'-10"
1250	9'-0"	5'-0"	7'-2"	4'-2"	4'-10"
1500	9'-0"	5'-8"	7'-2"	5'-2"	4'-0"
1750	11'-2"	5'-8"	7'-2"	4'-4"	4'-7"
2000	11'-2"	6'-8"	8'-0"	4'-11"	3'-10"
2500	12'-8"	6'-8"	8'-0"	4'-7"	4'-9"
2750	12'-8"	6'-8"	8'-0"	5'-6"	5'-3"
3000	15'-7"	9'-7"	8'-6.5"	6'-0"	3'-9"
4000	15'-7"	9'-7"	8'-6.5"	6'-3"	5'-0"
5000	19'-11"	9'-11"	8'-11"	6'-2"	4'-9"
6000	19'-11"	9'-11"	10'-5"	7'-2"	5'-9"

NOTE:

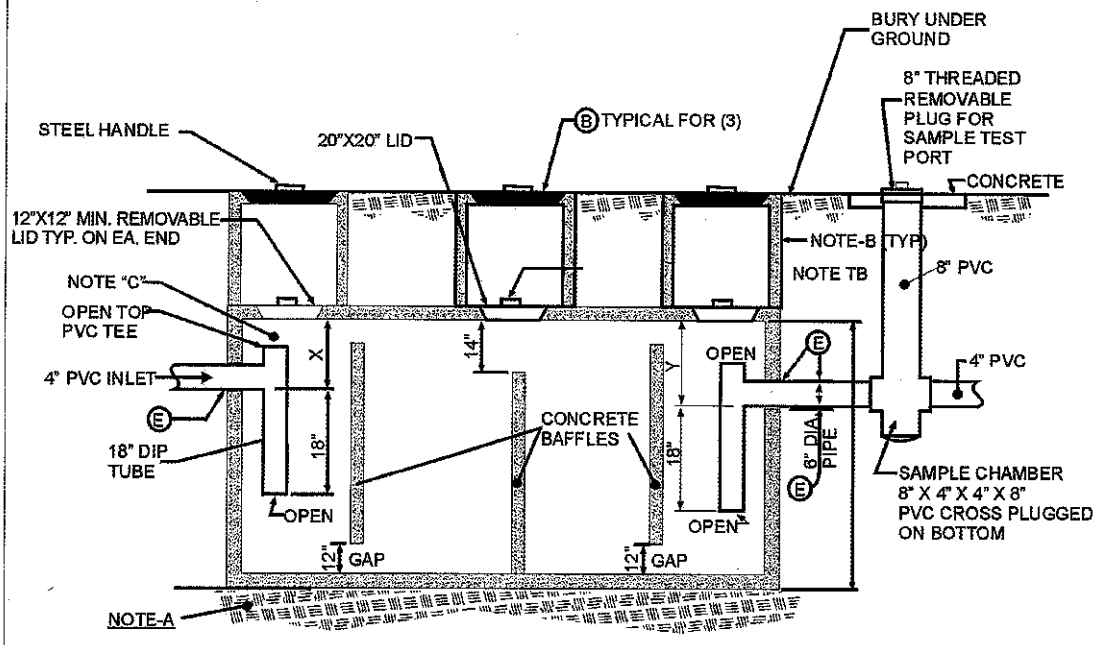
1. CC ETE: 28 DAY / = 4500 psi
2. RE ASTM A615 GRADE 60
3. ME STM A.185 GRADE 65
4. DE ACI318.83 BUILDING CODE
   ASTM C.857 MINIMUM STRUCTURAL DESIGN
   LOADING FOR UNDERGROUND PRECAST
   CONCRETE UTILITY STRUCTURES
5. LC H-20 TRUCK WHEEL w/30% IMPACT PER
   AASHT
6. FI LEAN WATER PRIOR TO START UP OF SYSTEM
7. CC CTOR TO SUPPLY & INSTALL ALL PIPING AND
   SA Y TEEs, 4 CLEAN OUTS, FOR CLEANING
   TOWA AP AND FOR CLEANING AWAY FROM TRAP ON
   BOTH ILET AND OUTLET / ALT. DUAL SWEEP CLEAN
   OUTS
8. GI /ATER ONLY, BLACK WATER SHALL BE CARRIED

Figure DF-8: Concrete Baffled Grease Tra

FIGURE P-4



PLAN VIEW



SECTIONAL SIDE VIEW INSTALLED

ALSO SHOWS SAMPLE TEST PORT

NOTE TB: TAMP BACKFILL 95% COMPACTION

b. Access – Outdoor grease interceptors shall be provided with two (2) manholes terminating 1-inch above finished grade with cast iron frame and cover. All grease interceptors shall be designed and installed to allow for complete access for inspection and maintenance of inner chamber(s) as well as viewing and sampling of wastewater discharged to the sanitary sewer.

c. Load-Bearing Capacity - In areas where additional weight loads may exist, the grease interceptor shall be designed to have adequate load-bearing capacity (example: vehicular traffic in parking or driving areas).

d. Inlet and Outlet Piping - Wastewater discharging to the grease interceptor shall enter only through the inlet pipe of the interceptor. The inlet pipe bottom tee branch shall extend one (1) foot below liquid level. The outlet pipe bottom tee branch shall be submerged to 2/3 of the liquid depth. Each grease interceptor shall have only one inlet and one outlet pipe.

e. Interceptor Sizing -

i. Outdoor grease interceptors shall not have a capacity of less than 1,500 gallons nor exceed a capacity of 3,000 gallons. No matter what the calculated capacity using the following formulas, the minimum interceptor size shall be 1,500 gallons. If the calculated capacity using one of the following formulas exceeds 3,000 gallons, then multiple units in series shall be installed. The size of a grease interceptor shall be approximated by the following methods and grease interceptor size shall be the larger of the two results.

1. Interceptor Capacity (gallons) = (S) x (25) x (Hr/12)
   S = Number of Seats
   Hr=Maximum hours of daily operation (Include preparation & clean up)
2. Interceptor Capacity (gallons) = (Sum of fixture flows) x (20)

Type of Fixture	Flow Rate (gpm)
Restaurant hand sink	15
Pre-rinse sink	15
Single-compartment sink	20
Double-compartment sink	25
Two double-compartment sinks	35
Dishwasher up to 30 gallons	15
Dishwasher up to 50 gallons	25
Dishwasher up to 100 gallons	40
Other fixture	Manufacturer peak

ii. Under-sink or in-line grease interceptor requirements shall meet Plumbing and Drainage Institute Standard PDI-G101:

Type of Fixture	Flow Rate (gpm)	Grease Retention Capacity (lbs)
Restaurant hand sink	15	30
Pre-rinse sink	15	30
Single-compartment sink	20	40
Double-compartment sink	25	50
Two double-compartment sinks	35	70
Dishwasher up to 30 gallons	15	30
Dishwasher up to 50 gallons	25	50
Dishwasher up to 100 gallons	40	80
Other fixture	Manufacturer peak	gpm x 2

Section 70-167 Grease Management Program

Table of Contents

1. **Purpose:**

The purpose of this program is to minimize the introduction of fats, oils and greases into the City of Tybee Island wastewater collection system. The main components of the program are the proper sizing, installation and maintenance of grease interceptors. The administrative and inspection requirements of food service facilities are also established herein.

2. **Definitions:**

Unless otherwise expressly stated or the context clearly indicates a different intention, the following terms shall, for the purpose of this document, have the meanings indicated in this document.

a. City – The City of Tybee Island
b. Domestic Wastewater – Wastewater from sanitary fixtures such as toilets and urinals.
c. Food Service facility – Any facility which cooks, which cuts, bakes, prepares or serves food or which disposes of food related waste.
d. Garbage Grinder – A device that shreds or grinds up solid or semi-solid waste material into smaller portions for discharge into the sanitary sewer system.
e. Grease – A material primarily composed of fats, oils and grease from animal or vegetable sources. The terms fats, oils, and grease shall be deemed as grease by definition. Grease may also include petroleum based products.
f. Hauler or Transporter - One who transports waste grease from the site of a user to an approved site for disposal or treatment. The hauler is responsible for assuring that all federal, state and local regulation and ordinances are followed regarding waste transport.
g. Interceptor, Separator or Trap – A device so constructed as to separate, trap and hold fats, oils, greases, sand and grit substances from the wastewater discharged by a facility in order to prevent these substances from entering the sanitary sewer system.
h. Under-sink or Inline Grease Trap – A device placed under or in close proximity to sinks or other facilities likely to discharge grease in an attempt to separate, trap or hold oil and grease substances to prevent their entry into the sanitary sewer system.
i. User – A source of discharge into the City of Tybee Island sanitary sewer system.
j. Waste or Wastewater – The liquid and water carried domestic or industrial wastes from dwellings, commercial establishments, industrial facilities and institutions, whether treated or untreated that contribute to the sanitary sewer system.

3. **General Criteria:**
    a. Installation Requirements for New Food Service Facilities – All proposed or newly remodeled food service facilities inside the City of Tybee Island Wastewater service area shall be required to install an approved, properly operated and maintained grease interceptor. All interceptor units shall be installed Outdoors of the food service facility building unless the user can demonstrate to the wastewater Superintendent or his or her representative, that

an outdoor interceptor would not be feasible. All interceptor types shall be of a type and capacity approved by the Wastewater Superintendent.

b. Requirements for Existing Food Service Facilities – All existing food services facilities inside the City Of Tybee Island Wastewater service area are expected to conduct their operations in such a manner that grease is captured on the user's premises and then properly disposed of. Existing food service facilities will be handled under the City of Tybee Island's Grease Management Program in the following manner:

i. The City of Tybee Island will periodically inspect each food service facility on an as needed basis to assure that each facility is complying with the intent of the Grease management Program. The as needed inspection shall be determined by the Wastewater Superintendent.

ii. Each food service facility in the vicinity of a problem area will be inspected. The facilities grease control practices and the adequacy of their grease control interceptor and related equipment will be asses. Maintenance records will also be reviewed.

iii. Following the inspection, the City of Tybee Island will send written notice to the inspected facility, containing a summary of the policy requirements and the results of the inspection. The inspection results will typically result in one of the following actions:

1. Facilities equipped with an appropriate and adequately sized grease interceptor who are meeting the intent of the Grease management Program through effective grease control practices will be commended for their compliance.
2. After notice and an opportunity to be heard, facilities not in compliance shall be required to develop and submit to the Wastewater Superintendent a proposed plan designed to achieve compliance through improved housekeeping and/or increased maintenance and pumping of the existing grease interceptor equipment.
3. Facilities that are not successful in achieving compliance with the intent of the Grease Management Program through improved housekeeping and increased maintenance of the grease interceptor equipment will be required to install the necessary equipment to bring the facility into compliance.

c. Prohibited Discharges – Domestic wastewater shall not be discharged to the grease interceptor.

d. Waste Minimization Plan – Food service facilities shall develop and implement a Waste Minimization Plan pertaining to the disposal of grease, oils and food particles. Educational materials are available from City of Tybee Island water/Sewer Department regarding the minimization of these wastes.

e. Floor Drains – Only floor drains which discharge or have the potential to discharge grease shall be connected to the grease interceptor.

f. Location – Each grease interceptor shall be installed and connected so that it is easily accessible for inspection, cleaning and removal of the intercepted grease at any time. Grease interceptors required under this ordinance shall be installed outdoors of the food service facility. The best location is an area outside of an exterior wall but upstream of the domestic sewer drain line. A grease interceptor may not be installed inside any part of a building unless approved in writing by the Superintendent. The user bears the responsibility of demonstrating that an outdoor grease interceptor is not feasible.

4. DESIGN CRITERIA

a. Construction of Interceptors – Grease Interceptors shall be constructed in accordance with the City plumbing standards. Outdoor units will have a minimum of two compartments with fittings designed for grease retention. All alternative grease removal devices or technologies will be subject to the written approval of the Wastewater Superintendent. Such approval will be based on demonstrated removal efficiencies of the proposed technology. Grease Interceptor designs represent minimum standards for normal usage. Installations with heavier usage require more stringent measures for which the user is responsible. The user shall pay the costs to provide additional measures if required by the City of Tybee Island. The City of Tybee Island reserves the right to evaluate interceptor sizing on an individual basis for facilities with special conditions, such as highly variable flows, high levels of grease discharges or other unusual situations that are not adequately addressed by the sizing formula.

5. GREASE INTERCEPTOR MAINTENANCE:

a. Pumping – All grease interceptors shall be maintained by the user, at the user's expense. Maintenance shall include the complete removal of all contents, including floating materials, wastewater and bottom sludges and solids. Decanting or discharging of removed waste back into the interceptor from which the material is removed or any other grease interceptor, for the purpose of reducing the volume to be disposed is strictly forbidden.

b. Pumping Frequency – Outdoor grease interce3ptors must be pumped out completely a minimum of once every three months. Under-sink or inline grease interceptors must be pumped completely a minimum of once every month. Grease interceptors may need to be pumped out more frequently as needed to prevent carry over of grease into the sanitary sewer system. Pumping frequency may be extended past the minimum period if it can be demonstrated by the user and approved by the Wastewater Superintendent.

c. Pump Out Order – When the oil and grease concentrations exceed the City of Tybee Island's maximum discharge limits and/or the combined depth of bottom and top solids exceeds 33% of the total depth of the grease interceptor. The Wastewater Superintendent will issue a Pump Out Order to the user. The user shall have seven days from receipt of the order to comply. When an emergency exists, a written or verbal warning shall be given to the user and the user will have 24 hours to comply.

d. Disposal of Interceptor Pumped Material – All waste removed from each grease interceptor shall be recorded on a proper manifest form. Also, all waste removed from each grease interceptor

must be disposed of at a facility approved of by the City of Tybee island to receive such waste in accordance with the provisions of this program. In no way shall the pumped material be returned to any private or public portion of the sanitary sewer system.

e. Additives – Any additive placed into the grease interceptor or building discharge line system on a regular, constant or scheduled basis shall be reported to the Wastewater Superintendent. Such additives shall include but are not limited to, commercially available bacteria or other additives designed to consume, absorb or treat fats, oils and grease. The use of additives shall in no way be considered as an alternate technology or a substitution for maintenance requirements herein.

f. Chemical Treatment – Chemical treatments such as drain cleaners, enzymes, acids and other chemicals designed to dissolve, purge or remove grease, shall not be allowed to enter the grease interceptor.

6. ADMINISTRATIVE REQUIREMENTS

a. Initial Data Acquisition – All food service facilities will be asked to complete a data sheet to establish the grease interceptor data base. A copy of the form has been attached to this document as Appendix A. The City of Tybee island database will be updated with additional or modified information after each yearly inspection.

b. Administrative Fees – No fee will be charged for an annual inspection. However, if the user's grease interceptor is not in compliance with this section, a $50.00 re-inspection fee will be charged for each inspection thereafter, until compliance is achieved.

c. Inspection and Entry – Authorized personnel of the City of Tybee Island, bearing proper credentials and identification, shall have the right to enter upon all properties subject to this program, at any time and without prior notification, for the purpose of inspection, observation, measurement, sampling, testing or record review, as part of this program.

d. Record Retention and Reporting – All users must keep a record of any cleaning or maintenance of the grease interceptor. The following records must be kept on-site at the food service facility for a period of two (2) years.

i. Manifests are required for all grease interceptors and shall contain the following information:

1. Food Service Facility information, including name, address, volume pumped, date and time of pumping and generator (user) signature verifying the information.
2. Transporter information, including company name, address, license plate number, driver name and driver signature verifying transporter information.
3. Receiving information, including facility name, address, date and time of receiving, Georgia Environmental Protection Division permit number and signature verifying receipt of the waste.
4. Manifests must be mailed, faxed or electronically submitted to the Wastewater Superintendent within fourteen (14) days of interceptor maintenance.
5. A manifest may not be required for under-sink or inline grease interceptors if a user can demonstrate to the wastewater Superintendent a valid reason not to use one.

ii. Maintenance logs are required for all under-sink and inline receptors. This log shall include the date, time, amount pumped or cleaned, hauler, disposal site and signature. The log shall be kept in a conspicuous location for inspection. This log shall be made immediately available to the City of Tybee Island representative upon request. See Appendix B for an example.

7. Enforcement:

Enforcement of these regulations shall be in accordance with the provisions of the City of Tybee Island's Enforcement Response plan. Failure to comply with this program will be grounds for penalty imposition and/or discontinuation of water/sewer service. Additionally, failure to comply may result in revoking of food service permit and or business license. See Appendix C for the City of Tybee Island's Grease Enforcement Response Plan.

APPENDICES

APPENDIX A

Grease Management Program Information Form

If your business processes, prepares or otherwise handles food products, your facility is required by the City of Tybee Island to operate and maintain a grease interceptor that prevents excessive discharge of fats, oils and greases to the sanitary sewer system. Please fill out his form accurately and return to:

Wastewater Superintendent — Office Telephone (912) 472 – 5051
Box 2749, 403 Butler Ave.
Tybee Island, Ga. 31328

After a review of this information, a City of Tybee Island technician will schedule an inspection of your facility.

Facility Name	

Facility Address	

Billing Address (If different)	

On-Site Contact		**Contact Telephone**	

Corporate Contact (If applicable)		**Telephone**	

Number of Seats	

Maximum daily hours of operation, including preparation and cleanup time	

Volume of existing outdoor grease interceptor(s)	

Indicate the Number of the Following Fixtures Present at your Facility

Kitchen Hand Sinks	
Pre-rinse sinks	
Single Compartment Sinks	
Double Compartment Sinks	
Dishwashers	

Indoor In-line (Under-sink) Grease Interceptors:

Size		Cleaning Frequency		Maintenance Log or Manifest: Yes/No
Size		Cleaning Frequency		Maintenance Log or Manifest: Yes/No
Size		Cleaning Frequency		Maintenance Log or Manifest: Yes/No
Size		Cleaning Frequency		Maintenance log or Manifest: Yes/No
Size		Cleaning Frequency		Maintenance Log or Manifest: Yes/No

Where is the Grease from Indoor Interceptors Disposed?

Is the Pumping of Grease Contracted?

(Circle One)

Yes	**No**	**Unknown**

Who Does the Pumping/Hauling?

What is the Pumping Frequency?

Weekly	**Monthly**	**Quarterly**

Are Waste Manifests Used?

(Attach a Copy of last Manifest)

Yes	**No**

Is the Grease Interceptor Pumped and Cleaned Completely?

Yes	**No**

Where is the Grease Disposed?

What are the Dimensions of (feet) and Location of all Grease Interceptors?

Depth	Width	Length	Location

Does Sanitary Waste Flow to the Grease Interceptor?

Yes	No	Unknown

Does the Dishwasher Flow to the Grease Interceptor?

Yes	No	Unknown

Does the Kitchen Recycle all Available Oil Products?

Yes	No	Unknown

What is the Name of The Recycling Firm?

***NOTE ***

The customer shall resolve all unknown information before the first inspection.

CITY OF TYBEE ISLAND GREASE INTECEPTOR MAINTENANCE LOG

Pumper/Hauler

Address of Pumper/Hauler

Phone Number of Pumper/Hauler

Disposal Site Name and Address

Pumping/Cleaning Frequency

Date Cleaned	Time Cleaned	Inlet Chamber Cleaned	Outlet Chamber Cleaned	Amount Cleaned or Removed	Signature of Employee

This record must be maintained and available for inspection for two (2) years. If there is a problem or concern pertaining to the release of oils and/or grease into the sewer system, please contact the Wastewater Superintendent at 912-472-5051.

City of Tybee Island

Grease Enforcement Plan

A. INTRODUCTION:

The purpose of this document is to present a plan for uniform enforcement actions to deal with User noncompliance with all applicable state and federal laws required by the Clean Water Act of 1977, as amended and including the City of Tybee Island Sewer Use Ordinance. Specifically section 6-2-5, item D, Interceptors.

B. USER INVENTORY:

It is the responsibility of the City of Tybee Island to maintain an inventory of Users that have or are required to have grease interceptors. The following list includes a number of resources used by the City of Tybee Island for identifying facilities:

1. Telephone Listings
2. Previous Survey Results
3. Restaurant Directories
4. Sewer Connection Permits
5. Referrals from Other Agencies (Health Department, etc.)
6. Site Visits
7. Reports from Other Regulated Industries
8. Citizen Reports
9. Contact from Potential Restaurants
10. Observations by Sampling , Surveillance or Inspection Personnel
11. Newspaper, Trade Journal or Business magazine Articles
12. Chamber of Commerce
13. Plumbers and Plumbing Inspectors

All new food service facilities are subject to requirements in the City of Tybee Island Grease Management Program and are added to the list of regulated facilities.

C. COMPLIANCE MONITORING PROCEDURES:

Legal proceedings- Compliance with applicable regulations and ordinances are determined through Compliance monitoring activities by the City of Tybee Island are necessary to identify and document violations that can be presented as admissible and irrefutable evidence in administrative actions and legal proceedings. Compliance with applicable regulations and ordinances are determined through and evaluated through:

1. Reported data from users
2. Inspections conducted by the City of Tybee Island
3. Surveillance sampling and analysis conducted by the City of Tybee Island

4. Evaluation of application information by the City of Tybee Island

D. DATA SCREENING:

The majority of the data to be screened and evaluated is generated through manifests, maintenance logs, inspections and sampling. All data generated by these activities will be reviewed weekly by the Wastewater Superintendent. Each violation is noted and appropriate enforcement action initiated. The specific responses and time frames are detailed in the Enforcement Response section. Screening and tracking reports submitted as part of a schedule of compliance are reviewed at least twice monthly. Action is taken if required reports are not received or if milestones are missed.

E. Identification of Violations:

The identification of a violation of grease requirements, regardless of the severity, will initiate the enforcement process. Discovery of a violation may occur as a result of any number of activities that include:

1. Review of the Wastewater Department's surveillance-sampling results
2. Review of user manifests and maintenance logs
3. Spill/accidental discharge reports from user
4. Notification of violation by user
5. Site visits and inspections by the City of Tybee Island
6. Information provided by the users employees
7. Observations by field personnel
8. Information provided by the public and private citizens
9. Review of compliance schedule requirements
10. Review of agreed judgement requirements
11. Information provided by other agencies

Once violations are identified, it is the responsibility of the Wastewater Superintendent, through coordination with and actions of the City Marshall to implement the appropriate enforcement response required in the plan. When determining the appropriate response, particularly one that includes the imposition of penalties and/or fines, the specific procedures outlined in the Enforcement Response section must be followed. However, additional criteria may be used in the determination including:

1. Magnitude of violation
2. Duration of violation
3. Effects of the violation
4. Compliance history of the user
5. Good faith of the user

F. Enforcement Procedures

Generally, all violations identified by the City of Tybee Island are reviewed, evaluated and addressed by the appropriate enforcement response. The majority of enforcement actions begin with issuance of an initial notice of violation. This letter describes the nature of the violation and informs the user that any additional violations may result in an escalated enforcement action. Once the user has been notified of a violation or has knowledge of a condition which is a violation, the user may be allowed up to thirty (30) days to correct the none compliance before escalation before escalation of the enforcement process occurs. This thirty (30) day period applies only to the initial violation. Any violations occurring after this period will be evaluated according to plan procedures. Emergency conditions require immediate correction of non-compliance.

G. Enforcement Remedies Available to the City of Tybee Island:

1. Verbal Warning (VW) or Letter of Warning
2. Site Visit or Re-inspection (SV)
3. Notice of Violation (NOV)
4. Increased Self-monitoring or Reporting (ISM)
5. Consent Orders (CO)
6. Show-cause Hearing (SCH)
7. Compliance Order or Schedule of Compliance (SOC)
8. Cease and Desist Order (CDO)
9. Administrative Fines (AF)
10. Emergency Suspensions (ES)
11. Termination of Discharge (TOD)
12. Water Supply Severance (WSS)
13. Judicial Enforcement Remedies or Litigation (LIT)

H. Staff Responsibilities:

1. The Wastewater Superintendent in conjunction with the City Marshall and staff oversee all collection and screening of data, organization of enforcement actions, review of actions taken and general management of enforcement response procedures. They are authorized to administer enforcement remedies from Verbal Warnings to Increased Self-monitoring.
2. Enforcement will be in conformance with the Ordinance.

CITY OF TYBEE ISLAND GREASE ENFORCEMENT RESPONSE GUIDE

Noncompliance	Nature of Violation	Range of Response
Record or Reporting Violation	1. Missing or incomplete information 2. Failure to provide required reports (30 days late) 3. Falsification of records or manifests	VW, LW, SV, NOV
Failure to Maintain Grease Interceptor	1. Infrequent 2. Frequent or Recurring	VW, LW, SV, NOV CO, SCH, AF, TOD, WSS, LIT
Improper Waste Disposal	Evidence of Intent (Dumping into Sewer)	CO, SCH, AF, TOD WSS, LIT
Compliance Schedule	1. Missed Milestone 2. Failure to Install Required Equipment 3. Missed Final Date (90 days outstanding, without valid cause)	VW, LW, SV, NOV CO, SCH, AF, TOD, WSS, LIT CO, SCH, AF, TOD, WSS, LIT
Failure to Mitigate Noncompliance or Cease Production	Failure to Cease	CO, SCH. AF, TOD, WSS, LIT
Failure to Provide Free Access to Facility or Records	1. Initial Violation 2. Recurring Violation	VW, LW, SV, NOV CO, SCH, AF, TOD, WSS, LIT

CITY OF TYBEE ISLAND ENFORCEMENT GUIDANCE AND TIME FRAMES

1. Whenever a Notice of Violation is issued that requires a response and the user fails to respond, the next level of enforcement will be taken.
2. Enforcement responses may be escalated as needed and the City of Tybee is empowered to take more than one enforcement action against any non-compliant user.
3. The City of Tybee Island may charge any user for Recovery of Costs incurred.

Time Frames for Enforcement Responses:

a. All violations will be identified and documented within seven (7) days of receiving compliance information.
b. Initial enforcement responses involving contact with the user and requestinf information, corrective or preventative actions will occur within thirty (30) dys of violation detected.
c. Follow up actions for continuing or recurring violations will be taken within sixty (60) days of the initial enforcement response. For all continuing violations, the response will include a compliance schedule.
d. Violations that threaten health, property or environmental quality are considered emergencies and will receive immediate responses such as halting the discharge of the user.

NOTE

Designs for grease interceptors may be obtained from the Wastewater Superintendent

TABLE OF CONTENTS

CITY OF TYBEE ISLAND

WATER AND SWER DEPARTMENT

BACKFLOW PREVENTION PROGRAM

IV. DEFINITIONS

a. Approved

Approved by the Director of the Water and Sewer Department as meeting an applicable specification stated or cited in program or as suitable for the proposed use.

b. Auxiliary water Supply

Any water supply, on or available, to the premises other than the City of Tybee Island's approved public potable water supply.

c. Backflow

The flow of water or other liquids, mixtures or substances, under positive or reduced pressure in the distribution pipes of the potable water supply from any source than the one intended.

d. Backflow Preventer

A device or means designed to prevent backflow or backsiphonage. Most commonly categorized as an air gap, pressure vacuum breaker, dual check valve, double check with intermediate atmospheric vent and barometric loop.

d.1 Air Gap

A physical separation sufficient to prevent backflow between the free flowing discharge end of the potable water system and any other system. Physically defined as a distance equal to twice the diameter of the supply side pipe diameter but never less than one inch.

d.2 Atmospheric Vacuum Breaker

A device that prevents backsiphonage by creating an atmospheric vent when there is either a negative pressure or sub-atmospheric pressure in a water system.

d.3 Barometric Loop

A fabricated piping arrangement rising at least 35 feet at its topmost point above the highest fixture it supplies. It is used in water supply systems to prevent backsiphonage.

d.4 Double Check Valve Assembly

An assembly of two independently operating spring loaded check valves with tightly closing shut off valves on each side of the check valves, plus properly located test cocks for the testing of each check valve.

d.5 Double Check Valve with Intermediate Atmospheric Vent

A device having two spring loaded check valves separated by an atmospheric vent chamber.

d.6 Hose Bibb vacuum Breaker

A device that is permanently attached to a hose bibb, which acts as an atmospheric vacuum breaker.

d.7 Pressure Vacuum Breaker

A device containing one or two independently operated spring loaded check valves and an independently operated spring loaded inlet valve located on the discharge side of the check or checks. The device includes tightly closing shut off valves on each side of the check valves and properly located test cocks for the testing of the check valves.

d.8 Reduced Pressure Principal Backflow Preventer

An assembly consisting of two independently operating approved check valves with an automatically operating differential relief valve located between the two check valves, tightly closing shut-off valves on each side the check valves. Plus, properly located test cocks for the testing of check valves and relief valves. Also known as an RPZ or RP backflow preventer.

d.9 Dual Check Backflow Preventer

An assembly of two spring loaded, independently operating check valves that do not tightly close off shut-off valves and test cocks. Generally employed immediately downstream of the water meter to act as a containment device.

e. Back Pressure

A condition in which the customers system pressure is greater than the system pressure.

f. Backsiphonage

The flow of water or other liquids, mixture or substances into the distribution pipes of the potable water supply system from any source other than its intended source, caused by the sudden reduction in pressure in the potable water system.

g. Containment

A method of backflow prevention that requires a backflow preventer at the water service entrance.

h. Contaminant

A substance that will impair the quality of water to a degree that it creates a serious health hazard to the public, leading to poisoning or the spread of disease.

i. Cross-connection

An actual or potential connection between the public water supply and a source of contamination or pollution.

j. Environmental Protection Division (EPD)

The State of Georgia Environmental Protection Division of the Georgia Department of Natural Resources.

k. Director

The Director or his representative in the Water and Sewer Department is invested with the authority and responsibility for the implementation of a Backflow Prevention Program and for the enforcement of the provisions of the ordinance.

l. Fixture Isolation

A method of backflow prevention in which a backflow preventer is located to correct a cross-connection at an in-plant location rather than at a water service entrance. Interior connections are secondary to the primary device at the public main connection and testing reports are not generally reported to the utility.

m. Owner

Any person who has legal title to, or license to operate or habitat in a property upon which a cross-connection inspection is to be made or upon which a cross-connection is present.

n. Permit

A document issued by The City of Tybee Island that allows for the use of a backflow preventer.

o. Person

Any individual, partnership, company, public or private corporation, political subdivision or agency of the state, agency or instrumentality of the United States or any other legal entity.

p. Pollutant

A foreign substance that if permitted to get into the public water system will degrade its quality, so as to constitute a moderate hazard or impair the water to a degree which does not create an actual hazard to the public itself but which does adversely and unreasonably effect such water for domestic use.

q. Water Service Entrance

That point in the owners water system beyond the sanitary control of the distribution system, generally considered to be the outlet end of the water meter and always before any unprotected branch.

V. ADMINISTRATION

a. The City of Tybee Island Water and Sewer Department will operate a backflow prevention program, to include the keeping of necessary records, which fulfills the requirements of the City's Cross-connection regulations as outlined in the ordinance

b. The owner shall allow his property to be inspected for possible cross-connections and shall follow the provisions of the City's program if a cross-connection is detected.

c. If the Water and Sewer Department requires that the public water supply be protected by containment, the owner shall be responsible for water quality beyond the outlet end of the containment device and should utilize fixture outlet protection for this purpose.

d. The Director may utilize public health officials or personnel from the Water and Sewer Department or delegated representatives to assist the Owner in the survey of his facilities and to assist him in the selection of proper fixture outlet devices and the proper installation of these devices.

VI. Requirements

a. Water and Sewer Department

On new installations, the Water and Sewer Department will provide onsite evaluation and inspection of plans, in order to determine the type of backflow prevention device, if any that will be required. The Department will issue permits and schedule routine inspections and tests. In any case a minimum of a double check valve will be required in any new construction.

b. For premises existing prior to the start of this program, the Water and Sewer Department will conduct evaluations and inspections of the premises and inform the owner by letter of any correction deemed necessary, the method of achieving the correction and the time allowed to make the correction. Normally 90 90 days will be allowed. This period may be shortened, depending on the degree of hazard involved and the history of the device involved.

c. The Department will not allow any cross-connection to remain unless it is protected by an approved backflow prevention device, for which a permit has been issued and which will be regularly tested to ensure satisfactory operation. The Water and Sewer Department shall inform the Owner by letter of any failure to comply, by the time of the first re-inspection. The Owner will be allowed an additional 15 days for the correction. In the event the Owner fails to comply with the necessary correction by the time of the second re-inspection, the Department will inform the Owner by letter, that the water service will be terminated within a period of five days. In the event

d. The Owner informs the Department of extenuating circumstances as to why the correction has not been made, a time extension may be granted by the Department, but in no case will exceed thirty days.

e. If the Water and Sewer Department determines **at any time** that a serious threat to public health exists, the water service will be terminated immediately.

f. The Department shall have on file a list of private contractors who are certified backflow device testers. The Owner will pay all charges for these tests.

Owner

a. The owner shall be responsible for the elimination or protection of all cross-connections on his premises**.**

b. The Owner, after having been informed by letter from the Water and Sewer Department, shall at his expense, install, maintain and test, or have tested, any and all backflow preventers on his premises.

c. The Owner shall correct any malfunction of the backflow preventer that is revealed by periodic testing.

d. The Owner shall inform the Water and Sewer Department of any proposed or modified cross-connections of which the Owner is aware but has not been found by the Department.

e. The owner shall not install a bypass around any backflow preventer unless there is a backflow preventer of the same type on the bypass. Owners who cannot shutdown operation for testing of the device, must supply additional devices as needed to allow testing to take place.

f. The Owner shall install backflow preventers in a manner approved by the Water and Sewer Department.

g. The Owner shall only install backflow preventers approved by the Water and Sewer Department.

h. Any Owner having a private well or other private water source must not cross-connect the well or source to The City of Tybee Islands water system.

i. In the event the Owner installs plumbing to provide potable water for domestic purposes, which is on the City of Tybee Island side of the backflow preventer, such plumbing must have its own backflow preventer installed. For residential purposes, the required backflow preventer will be supplied by the City as part of the meter when purchased.

j. The Owner shall be responsible for the payment of all fees for permits, annual or semi-annual device testing as well as retesting in case that device fails to operate correctly or has been found to be in non-compliance with the water and Sewer Department requirements.

VII. Degree of Hazard

The Water and Sewer Department recognizes the threat to the public water system arising from cross connections. All threats will be classified by degree of hazard, listed below as Low, Medium and High risk.

a. Category I, High risk: A facility considered as a possible source of contaminants. The category would include Doctors and Dentist offices, metal plating operations, chemical companies, facilities that have the capability of exerting back pressure on their water tap and other business's using toxic substances. These operations shall be required to install a reduced pressure principal backflow prevention assembly for maximum protection.

b. Category II, Medium risk: A facility considered as a possible source of pollutants. This category would include businesses such as grocery stores, restaurants, day care centers, master metered office buildings and any business that has an auxiliary water supply. These operations shall be required to install either a reduced pressure principal backflow prevention assembly or a double check valve backflow prevention assembly, dependent on their required degree of protection.
c. Category III, Low risk: Considered to be least likely to be a source of contaminant or pollutant. Typically this would include single or duplex family dwellings or offices served by a single water

d. Category III, Low risk: Considered to be the least likely to be a source of contaminant or pollutants meter. All low risk facilities shall be required to install a dual check valve backflow prevention assembly, unless one has already been installed by the Water and Sewer Department.

VIII. Permits

The water and Sewer Department shall not permit a cross connection within the public water supply system unless considered necessary and that it cannot be eliminated.

a. Cross connection permits that are required for each backflow prevention device are obtained from the Water and Sewer Department.

b. Permits shall be reviewed annually for Medium and High risk devices and are non-transferable. Permits are subject to revocation and become immediately revoked if the Owner should so change the type of cross-connection device or degree of hazard associated with the service.

c. A permit is not required when fixture isolation is achieved with the utilization of a non-testable backflow preventer, such as those dual check backflow assemblies installed in Category III, Low risk facilities

IX. Approval of Backflow Prevention Devices

Any existing backflow preventer shall be allowed by the Water and Sewer Department to continue in service unless the degree of hazard is such as to supersede the effectiveness of the present backflow preventer or result in an unreasonable risk to the public health. Where the degree of hazard has increased, any existing backflow preventer must be upgraded to a reduced pressure principal device or a reduced pressure principal device must be installed in the event that no backflow device was present.

All backflow prevention devices at the connection to the public system must be approved by the Water and Sewer department in accordance with the applicable standards of the American Society of sanitary Engineering, the American national Standard Institute, the American Water Works Association, the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research, the Standard Plumbing Codes and the City of Tybee Island Backflow Prevention Program.

X. Periodic Testing

a. All testable backflow prevention devices shall be tested and inspected at least annually.

b. Periodic testing shall be performed by a certified tester, approved in advance by the water and Sewer Department. This testing will be done at the Owners expense.

c. Any backflow preventer that fails during a periodic test will be repaired or replaced. When repairs are necessary, upon completion of the repair, the device will be re-tested at the Owners expense to ensure correct operation. High hazard situations will not be allowed to continue unprotected if the backflow preventer fails the test and cannot be repaired immediately. In other situations, a compliance date of not more than thirty days after the test date will be established. The Owner is responsible for spare parts, repair tools or a replacement device. Parallel installation of two devices is an effective means of the Owner ensuring that uninterrupted water service during testing or repair of the devices and is strongly recommended when the Owner desires such continuity. Backflow prevention devices will be tested more frequently than specified in a. above, in cases where there is a history of test failures and the Water and Sewer Department feels that due to the degree of hazard involved, additional testing is warranted. Cost of the additional testing will be borne by the Owner.

XI. Records and Reports

a. Records

The City of Tybee Island water and Sewer Department will initiate and maintain the following:

1. Master files on customer cross-connection tests and/or inspections.
2. Master files on cross-connection permits.
3. Paper and Digital copies of each permit and permit application.
4. Paper and digital copies of lists and summaries supplied to the Water and Sewer Department.

XII. Cross-connection Emergency Response Plan

All customer inquiries concerning water quality are directed to the Water and Sewer Department. When a complaint is received, it is evaluated over the phone with the customer. If the complaint is determined to be a potential problem, a member of the Water and Sewer Department will be dispatched to the area reporting the problem. On arrival, the technician will:

a. Make a preliminary judgement of the problem by checking odor and taste.

b. If a cross-connection problem is suspected, notify the Director immediately. If the preliminary report indicates the necessity, the Director may activate follow up procedures before samples are sent to the laboratory.

c. Pick up samples and take them to the laboratory for testing. These samples will be tested for the nature of the pollutant or contaminant

If tests indicate a problem, an onsite inspection for possible sources of contamination will be done, as well as checking the files for potential sources of contamination in the area. The Director will evaluate the situation and activate any or all of the following options.

a. Direct the line crew to open and flush hydrants in the area.

b. If a potentially hazardous cross-connection is found in the vicinity of the area, the responsible person or owner, with personnel from the water and Sewer department will make an immediate inspection. If a cross-connection exists, it will be corrected or the water service will be shut off. The Owner of where the cross-connection is found will bear the cost correcting the affected system.

c. Close valves to isolate the problem area from the rest of the distribution system.

d. Notify customers in the affected area, using emergency notification methods established for boil water advisories.

e. Should a health hazard be revealed, additional checks to establish the limits of the problem area will be made. The problem area will be flushed and treated until proven safe. Personal contact will be made to all customers in the affected area.

Standard Operating Procedure of the Water and Sewer Department provide for personnel to be on duty or on call 24 hours a day, 7 days a week. The Director will be informed of emergency problems.

CITY OF TYBEE ISLAND

WATER AND SEWER DEPARTMENT

BACKFLOW PREVENTION PROGRAM

I. PURPOSE

a. To protect the public potable water supply served by the City of Tybee Island from the possibility of contamination or pollution by isolating, within its customers internal distribution system, such contaminants or pollutants which could backflow or back-siphon into the public water system.

b. To promote the elimination or control of existing cross connections, actual or potential, between a non-residential potable water system and non-potable systems.

c. To provide for the maintenance of a continuing program of cross-connection control which will effectively prevent the contamination or pollution of all potable water systems e cross-connection.

II. AUTHORITY

a. The United States Environmental protection Agency Safe Drinking water Act of 1974 and the Georgia Safe Drinking water Act of 1977 state that the water purveyor has the primary responsibility for preventing water from unapproved sources, or any other substances, from entering the public potable water supply.

b. The City of Tybee Island ordinances as adopted.

III. RESPONSIBILITY

a. The Director of the Water and Sewer Department shall be responsible for the protection of the public potable water distribution system from contamination or pollution due to the backflow or backsiphonage of contaminants or pollutants through the water service connection. If in the judgement of the Director of the Water and Sewer Department, an approved backflow device is required at the water service connection to any customer's premises, the Director or his delegated agent, shall give notice, in writing, to said customer to install an approved backflow prevention device at each service connection to the premises. The customer shall, within 90 days, install such approved device or devices, at the customers own expense, failure, refusal or inability on the part of the customer to install said device or devices within 90 days, shall constitute grounds for discontinuing water service to the premises until such device or devices have been properly installed.