

**City Water & Light  
Jonesboro, AR  
Interceptor Requirements and Installation Guidelines**

Note: Pursuant to Part 1, Chapter 70, Article III, Division 2, Sewer Use-Pretreatment Ordinance of the Jonesboro Municipal Code (Pretreatment Ordinance), this guideline was created as a reference and assistance to customers, contractors, and plumbers. This document does not constitute all City Water & Light (CWL) Interceptor regulations and requirement. It is the responsibility of the owner to comply with all CWL interceptor requirements, as applicable.

1. All new Food Service Establishments (FSE), and any existing FSE where upon through inspection and/or sampling CWL determines to be necessary, shall be required to have an approved Grease Interceptor, and to thereafter operate and maintain Interceptor in a satisfactory and effective operating state as defined by CWL.
  
2. An FSE consists of:
  - a. Establishments, operations, or enterprises engaged in activities of preparing, packaging, serving, vending, or otherwise making available for consumption foodstuffs, on or off site, for sale or consumption and that use one or more of the following preparation activities: Cooking by frying, baking, grilling, sautéing, rotisserie cooking, broiling, boiling, blanching, roasting, toasting, or poaching, and infrared heating, searing, barbecuing, and any other food preparation or serving activity that produces a consumable food product in or on a receptacle requiring washing to be reused.
  - b. Food manufacturers/processors, food packagers, commercial kitchens, restaurants, eateries, cafes, delis, dairies, espresso bars, grocery stores, bakeries, cafeterias, hospitals, hotels, motels, nursing homes, churches, schools, caterers, butcher shops, correctional facilities, care institutions, operations which dispose of food related wastes, or any other sewer users who discharge applicable waste as determined by CWL.
  
3. All new Car Wash facilities shall be required to have an approved Sand/Oil interceptor, and to thereafter operate and maintain Interceptor in a satisfactory and effective operating state as defined by CWL.

4. Plans for new Sand/Oil or Grease Interceptors or modifications to existing shall be submitted to CWL Engineering PRIOR to the purchase and installation of such devices. Interceptor shall be of the type and capacity approved by CWL. Each owner must submit a detailed site plan, piping layout and any additional details required by CWL.
5. Sand/Oil or Grease Interceptor shall be installed by a licensed plumber. Completed Interceptor shall be inspected by CWL Inspection Department. INTERCEPTOR SHALL NOT BY COVERED PRIOR TO INSPECTION AND APPROVAL.
6. In approving a customer's plumbing installation or Interceptor design, CWL does not accept liability for any failure of a system to adequately treat wastewater to achieve effluent quality requirements specified under the Pretreatment Ordinance.
7. All Sand/Oil or Grease Interceptor design, details, construction, and installation shall comply with all applicable Federal, State, and Local Pretreatment Standards or Requirements, including local Ordinances promulgated under the Jonesboro Municipal Code or as otherwise specified by CWL, and also comply with all applicable Local and State building inspection and plumbing codes and applicable Arkansas Department of Health (ADH) codes.
8. Pursuant to regulations and requirements, Sand/Oil or Grease Interceptor design, Details, construction, and installation shall meet the following , unless otherwise approved by CWL Manager, minimum conditions/specifications:
  - a. Constructed of impervious materials capable of withstanding abrupt and extreme changes in temperature and capable of handling the traffic load where installed.
  - b. Equipped with an approved sampling port immediately downstream of the Interceptor and upstream of the sanitary sewer connection. The sampling port shall have a top opening of not less than twenty four (24") inches in diameter with a flow channel not less than four (4") inches in width and forty eight (48") inches in length.
  - c. Located, including sampling port, so as to be readily and easily accessible for cleaning, inspection, and/or sampling of the effluent quality. Interceptor and sampling port shall be equipped with easily removable covers.
  - d. Equipped with manhole lids that shall be installed at or above finished grade level; measure no less than twenty four (24") in diameter; be installed centered over piping chamber; and include riser rings as necessary. Exterior installations shall have solid covers only.
  - e. Connected in a series by placing the Interceptors immediately adjacent in a sequence when the installation of more than one Interceptor is required and/or authorized by CWL Engineering.
  - f. Maintain static water level throughout the entire Interceptor.

9. Pursuant to regulations and requirements, Grease Interceptor design, detail, construction, and installation shall meet the following, unless otherwise approved by CWL Manager, minimum conditions/specifications:
  - a. Constructed with a minimum 30 minute detention time, minimum of one baffle, and a minimum capacity of 500 gallons, with 75% capacity in the first chamber and the remaining 25% in the second chamber. CWL reserves the right to require an alternative minimum size as determined by Grease Interceptor design criteria qualifications and peak flow calculations.
  - b. Installed outside of the building wherever possible.
  - c. Sized according to the following formula, unless otherwise approved by CWL Manager: Formula identified by 2012 Uniform Plumbing Code, Table 702.1 and 1014.3.6 (SEE ATTACHMENTS "A" and "B")
  - d. Installed at a minimum distance of ten (10') feet from sinks and dishwashers to allow for adequate cooling of wastewater. Wastewater temperatures shall be less than 120 degrees prior to entering Grease Interceptor.
10. A Grease Recycling Container shall be provided, unless otherwise approved by CWL Manager, and routinely serviced by a licensed grease retrieval service when a FSE has a fryer, grill, or other cooking process that produces waste grease or approved equal method. It is a violation of the Pretreatment Ordinance to dispose of waste cooking grease by direct or indirect connection to the sanitary sewer. This includes dumping or piping waste cooking grease directly into the Grease Interceptor.
11. Sand/Oil Interceptor shall be constructed, unless otherwise approved by CWL Manager, with a minimum of two baffles and a minimum size of 485 gallons, with equal capacity in all three chambers. CWL reserves the right to require an alternate minimum size as determined by Interceptor design criteria qualifications and peak flow estimations.

**Attachment "A"**

**TABLE 1014.3.6  
GRAVITY GREASE INTERCEPTOR SIZING**

DRAINAGE FIXTURE UNITS <sup>1,3</sup> (DFUs)	INTERCEPTOR VOLUME <sup>2</sup> (gallons)
8	500
21	750
35	1000
90	1250
172	1500
216	2000
307	2500
342	3000
428	4000
576	5000
720	7500
2112	10000
2640	15000

For SI units: 1 gallon = 3.785 L

**Notes:**

<sup>1</sup> The maximum allowable DFUs plumbed to the kitchen drain lines that will be connected to the grease interceptor.

<sup>2</sup> This size is based on: DFU's the pipe size from this code: Table 703.2: Useful Tables for flow in half-full pipes (ref: Mohinder Nayyar Piping Handbook, 3<sup>rd</sup> Edition, 1992). Based on 30-minute retention time (ref.: George Tchobanoglous and Metcalf & Eddy. Wastewater Engineering Treatment, Disposal and Reuse. 3<sup>rd</sup> Ed. 1991 & Ronald Crites and George Tchobanoglous, Small and Decentralized Wastewater Management Systems, 1998). Rounded up to nominal interceptor volume.

<sup>3</sup> Where the flow rate of directly connected fixture(s) or appliance(s) have no assigned DFU values, the additional grease interceptor volume shall be based on the known flow rate (gpm) (L/s) multiplied by 30 minutes.

## ATTACHMENT "B"

**Table 702.1  
DRAINAGE FIXTURE UNIT VALUES (DFU)**

PLUMBING APPLIANCES, APPURTENANCES, OR FIXTURES	MINIMUM SIZE TRAP AND TRAP ARM <sup>7</sup> (Inches)	PRIVATE	PUBLIC	ASSEMBLY <sup>8</sup>
Bathtub or Combination Bath/Shower	1 ½	2.0	2.0	--
Bidet	1 ¼	1.0	--	--
Bidet	1 ½	2.0	--	--
Clothes Washer, domestic, standpipe <sup>5</sup>	2	3.0	3.0	3.0
Dental Unit, cuspidor	1 ¼	--	1.0	1.0
Dishwasher, domestic, with independent drain <sup>2</sup>	1 ½	2.0	2.0	2.0
Drinking Fountain or Water Cooler	1 ¼	0.5	0.5	1.0
Food Waste Grinder, commercial	2	--	3.0	3.0
Floor Drain, emergency	2	--	0.0	0.0
Floor Drain (for additional sizes see Section 702.0)	2	2.0	2.0	2.0
Shower, single-head trap	2	2.0	2.0	2.0
Multi-head, each additional	2	1.0	1.0	1.0
Lavatory, single	1 ¼	1.0	1.0	1.0
Lavatory, in sets off two or three	1 ½	2.0	2.0	2.0
Wash fountain	1 ½	--	2.0	2.0
Wash fountain	2	--	3.0	3.0
Mobile Home, trap	3	12.0	--	--
Receptor, indirect waste <sup>1,3</sup>	1 ½	--	See footnote <sup>1,3</sup>	--
Receptor, indirect waste <sup>1,4</sup>	2	--	See footnote <sup>1,4</sup>	--
Receptor, indirect waste <sup>1</sup>	3	--	See footnote <sup>1</sup>	--
Sinks	--	--	--	--
Bar	1 ½	1.0	--	--
Bar <sup>2</sup>	1 ½	--	2.0	2.0
Clinical	3	--	6.0	6.0
Commercial with food waste <sup>2</sup>	1 ½	--	3.0	3.0
Special Purpose <sup>2</sup>	1 ½	2.0	3.0	3.0
Special Purpose	2	3.0	4.0	4.0
Special Purpose	3	--	6.0	6.0
Kitchen, domestic <sup>2</sup> (with or without food waste grinder, dishwasher, or both)	1 ½	20.0	2.0	--
Laundry <sup>2</sup> (with or without discharge from a clothes washer)	1 ½	2.0	2.0	2.0
Service or Mop Basin	2	--	3.0	3.0
Service or Mop Basin	3	--	3.0	3.0
Service, flushing rim	3	--	6.0	6.0
Wash, each set of faucets	--	--	2.0	2.0
Urinal, integral trap 1.0 GPF <sup>2</sup>	2	2.0	2.0	5.0
Urinal, integral trap greater than 1.0 GPF	2	2.0	2.0	6.0
Urinal, exposed trap <sup>2</sup>	1 ½	2.0	2.0	5.0
Water Closet, 1.6 GPF Gravity Tank <sup>6</sup>	3	3.0	4.0	6.0
Water Closet, 1.6 GPF Flushometer Tank <sup>6</sup>	3	3.0	4.0	6.0
Water Closet, 1.6 GPF Flushometer Valve <sup>6</sup>	3	3.0	4.0	6.0
Water Closet, greater than 1.6 GPF Gravity Tank <sup>6</sup>	3	4.0	6.0	8.0
Water Closet, greater than 1.6 GPF Flushometer Valve <sup>6</sup>	3	4.0	6.0	8.0

For SI units: 1 inch = 25 mm

**Notes:**

<sup>1</sup> Indirect waste receptors shall be sized based on the total drainage capacity of the fixtures that drain therein to, in accordance with Table 702.2(b).

<sup>2</sup> Provide a 2 inch (50 mm) minimum drain.

<sup>3</sup> For refrigerators, coffee urns, water stations, and similar low demands

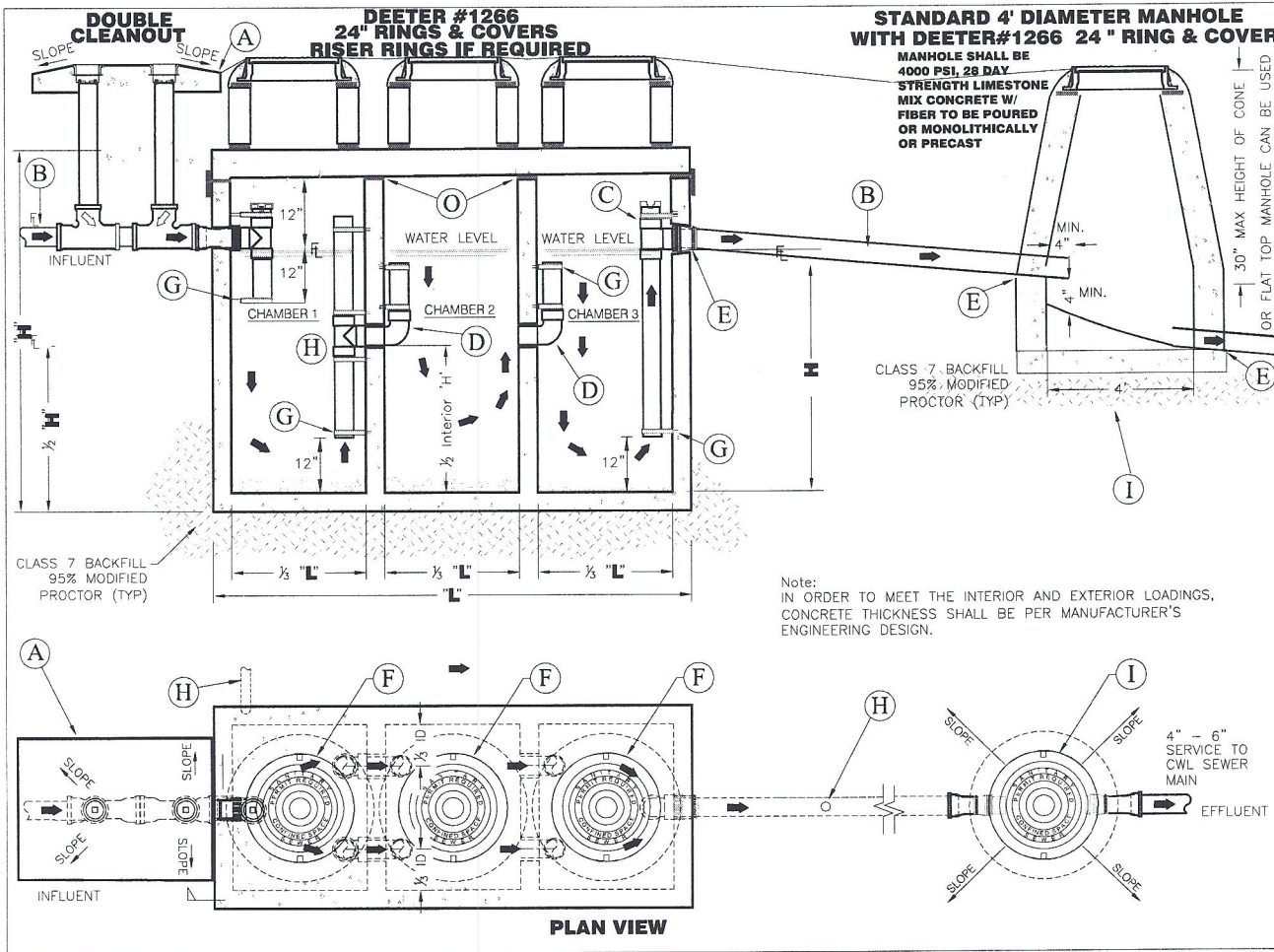
<sup>4</sup> For commercial

<sup>5</sup> Buildings having a clothes washing area with clothes washers in a battery of three or more clothes washers shall be rated at 6 fixture units each for purposes of sizing common horizontal and vertical drainage piping.

<sup>6</sup> Water closets shall be computed as 6 fixture units where determining septic tank sizes based on Appendix H of this code.

<sup>7</sup> Trap sizes shall not be increased to the point where the fixture discharge is capable of being inadequate to maintain their self-scouring properties.

<sup>8</sup> Assembly (Public Use) (see Table 422.1).



- (A) DOUBLE CLEANOUT & PAD USE IN PARKING AREA SEE ADDITIONAL NOTE #7
- (B) PIPE MIN. 4" SCH. 40 PVC.
- (C) TEE MIN 4" SCH. 40 PVC.
- (D) ELBOW LONG SWEEP MIN. 4" SCH.40 PVC.
- (E) A-LOK SEAL SEE ADDITIONAL NOTE #5
- (F) MANHOLE FRAMES & LIDS DEETER #1266 OR EQUAL SEE ADDITIONAL NOTE #1
- (G) BANDS & ANCHORS STAINLESS STEEL SEE ADDITIONAL NOTE #2
- (H) VENT - SEE ADDITIONAL NOTE #5
- (I) SAMPLING MANHOLE 4' DIAMETER MANHOLE
- (J) RAM-NEK #RN101 PREFORMED FLEXIBLE GASKET STRIP 1.5" WIDE MIN. ASTM-C99-09, SS-210A, AASHOM-198751 OR EQUAL

**ADDITIONAL NOTES:**

1. ALL SAND/OIL INTERCEPTORS MUST HAVE THREE COMPARTMENTS WITH STANDARD MANHOLE FRAMES AND LIDS ARE TO BE INSTALLED OVER THE INLET PIPE AND OUTLET PIPE ON EACH COMPARTMENT .
2. ALL SAND/OIL INTERCEPTORS IN-TANK PIPING MUST BE MIN. 4" SCHEDULE 40 PVC SOLVENT WELD, AND IS TO BE SECURED AT THE TOP AND BOTTOM WITH STAINLESS STEEL BANDS AND BOLTS.
3. ALL SAND/OIL INTERCEPTORS MUST BE ACCESSIBLE FOR INSPECTION, AND CLEANING AT ALL TIMES.
4. A-LOK SEALS OR EQUAL BOOTS ARE REQUIRED WHERE PIPING PASSES THROUGH THE EXTERIOR AND INTERIOR INTERCEPTOR WALLS AND MANHOLES.
5. VENTS ARE TO BE INSTALLED PER ARKANSAS STATE PLUMBING CODE LATEST REVISION.
6. CLEANOUTS USED ON THE EXTERIOR PORTION OF TANKS SHALL BE MIN. 4" WITH BRASS COUNTERSUNK PLUGS WADE #8590E OR EQUAL. PARKING AREAS MUST HAVE COUNTERSUNK COVERS WADE #8300MF OR EQUAL WITH CONCRETE PADS DETAILS.
7. EACH OWNER MUST SUBMIT A DETAILED SITE AND FLOOR PLAN THAT SHOW ALL PLUMBING FIXTURES WITH FLOW RATE AND THEIR CORRESPONDING PIPING LAYOUTS. EACH OWNER MUST SUBMIT AN ISOMETRIC PLUMBING RISER THAT SHOWS THE WASH BAY PIPING AND ALL OTHER SANITARY PIPING ASSOCIATED. CWL WILL REQUIRE A TOTAL GPM FLOW RATE TO THE SAND/OIL INTERCEPTOR.
8. ALL SAND/OIL INTERCEPTOR AND DRAWINGS MUST BE PRE-APPROVED BY CITY WATER & LIGHT.
9. WHEN SUBMITTAL IS COMPLETE AND APPROVED CWL WILL ISSUE A SAND/OIL INTERCEPTOR PERMIT.
10. ATTENTION ALL INSPECTIONS MUST BE COMPLETE SAND/OIL INTERCEPTOR AND SEWER LINES INCLUDED BEFORE CWL WILL CONNECT PERMANENT ELECTRIC TO BUILDING.

**PT5**

**CAR WASH BAY / WASH BAY  
ONE TANK - THREE COMPARTMENT  
SAND/OIL INTERCEPTOR**

SPECIFICATIONS

Prepared By: \_\_\_\_\_  
 Latest Revision: 1/8/2015 4:02:08 PM  
 Drawing Status: **APPROVED**  
 Filename: PT5

**Notes**

1. ALL CHANGES/REVISIONS/ETC. MUST BE APPROVED BY THE CWL.
2. THIS DRAWING IS THE PROPERTY OF CITY WATER & LIGHT, AND IS NOT TO BE MODIFIED IN WHOLE OR IN PART.

**ADDITIONAL NOTES:**

1. All Sand/Oil Interceptors must have three chambers, and three Standard 24" Sanitary Sewer Manhole Rings & Covers.
2. All Sand/Oil Interceptors must be accessible for inspection, and cleaning at all times.
3. All Sand/Oil Interceptors are to be vented per Arkansas State plumbing code latest revision.
4. Sand/Oil Interceptors placed in a parking area should have Bollards placed to prevent vehicles from parking on top of the manhole lids.
5. 4' Diameter Sampling/Inspection MH must be installed down stream of the Sand/Oil Interceptor and any service line connections, as shown.
6. Catch Basins are to be installed on all covered vehicle washes.
7. Each owner must submit a detailed site plan, piping layout plan and any additional details required by CWL.
8. Once the owner's submittal is complete, CWL will issue a Sand/Oil Interceptor Permit approval form.

Required - EXTERIOR ONE TANK - THREE COMPARTMENT SAND/OIL INTERCEPTOR. Install per CWL Specification latest revision.

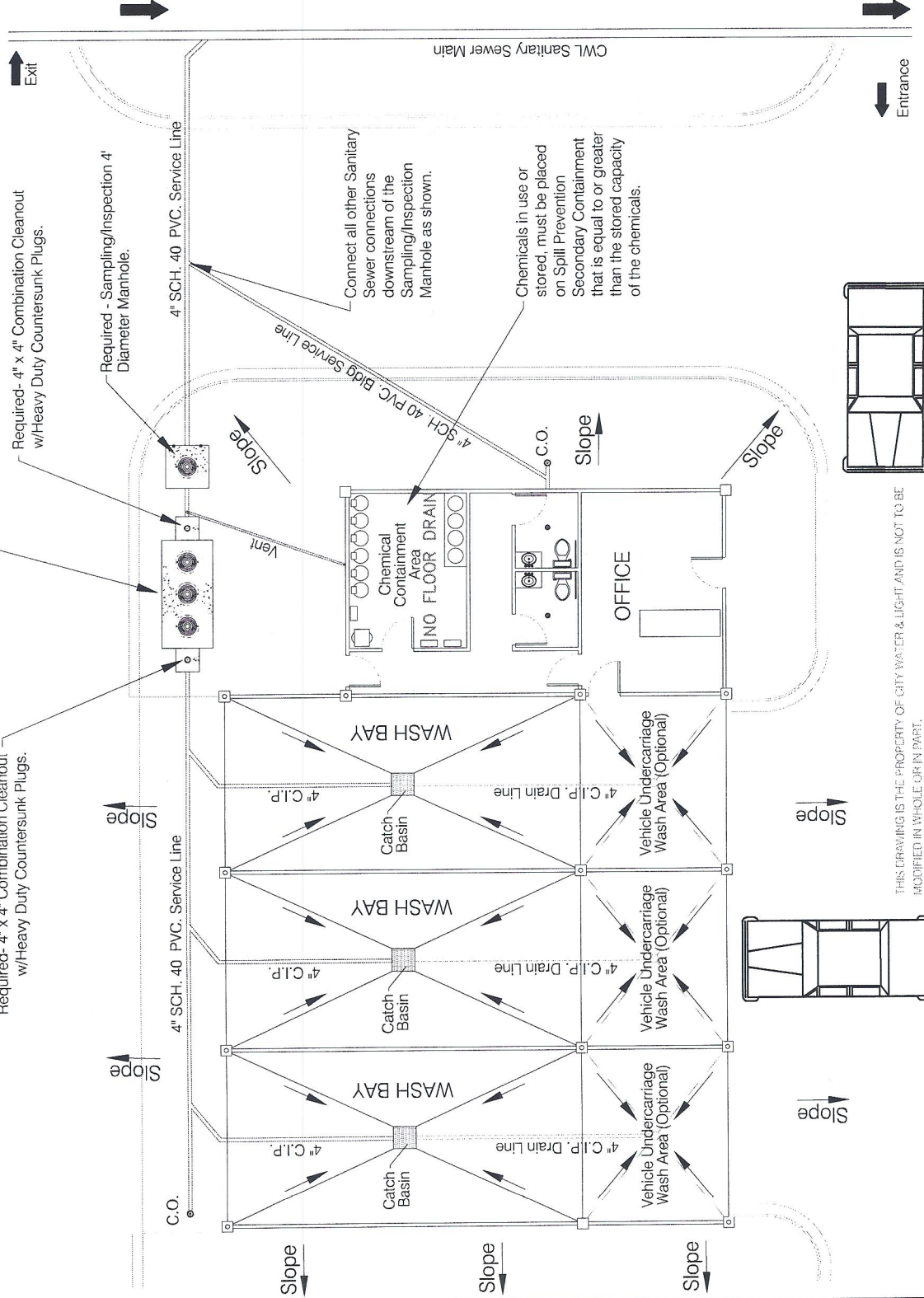
Required - 4" x 4" Combination Cleanout w/Heavy Duty Countersunk Plugs.

Required - 4" x 4" Combination Cleanout w/Heavy Duty Countersunk Plugs.

Required - Sampling/Inspection 4' Diameter Manhole.

Connect all other Sanitary Sewer connections downstream of the Sampling/Inspection Manhole as shown.

Chemicals in use or stored, must be placed on Spill Prevention Secondary Containment that is equal to or greater than the stored capacity of the chemicals.



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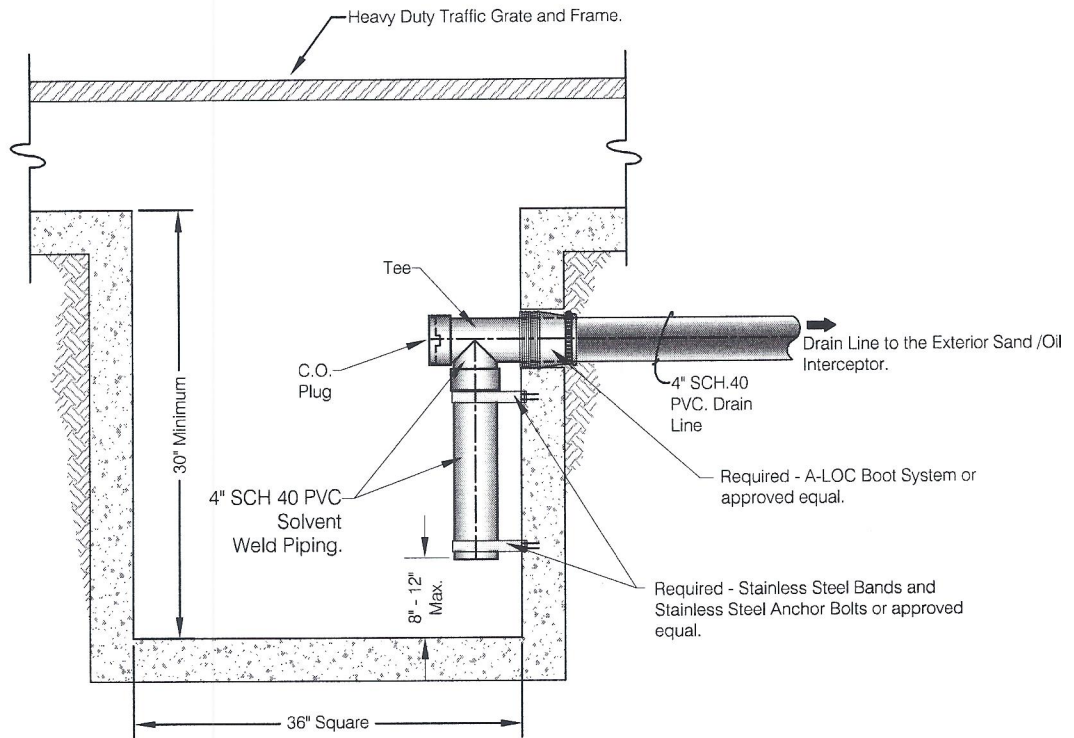
CWL  
**PT6**

**EXAMPLE VEHICLE WASH  
PIPING LAYOUT FOR USE WITH  
EXTERIOR SAND/OIL INTERCEPTOR  
& CATCH BASINS**



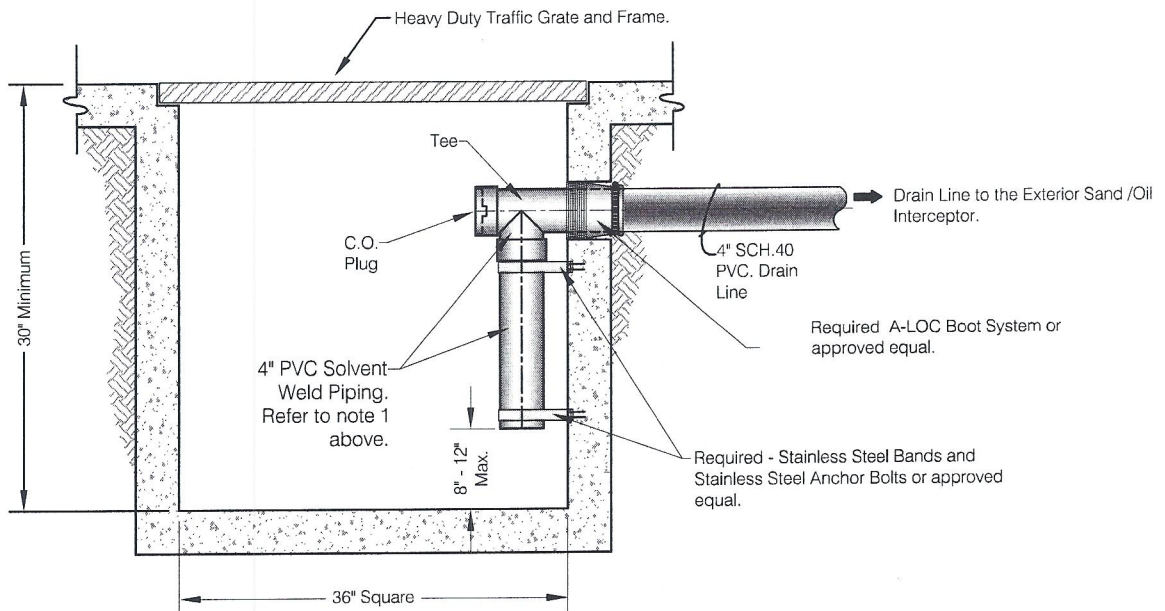
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Revised: 1/8/2015 4:08:42 PM  
Drawing Status: **APPROVED**  
Filename: PT6

- Notes**
1. This drawing represents a "Typical Covered Vehicle Wash piping layout with Exterior Sand/Oil Interceptor".
  2. All changes/revisions/etc. Must be approved CWL.



**ADDITIONAL NOTES:**

1. Required - All interior piping must be 4" SCH. 40 PVC. Solvent Weld, and must be secured at the top and bottom with Stainless Steel Bands and Stainless Steel Anchor Bolts or approved equal.
2. Required A-LOC Boot System connections or approved equal are required where piping passes through the Interceptor exterior walls.



**Notes**  
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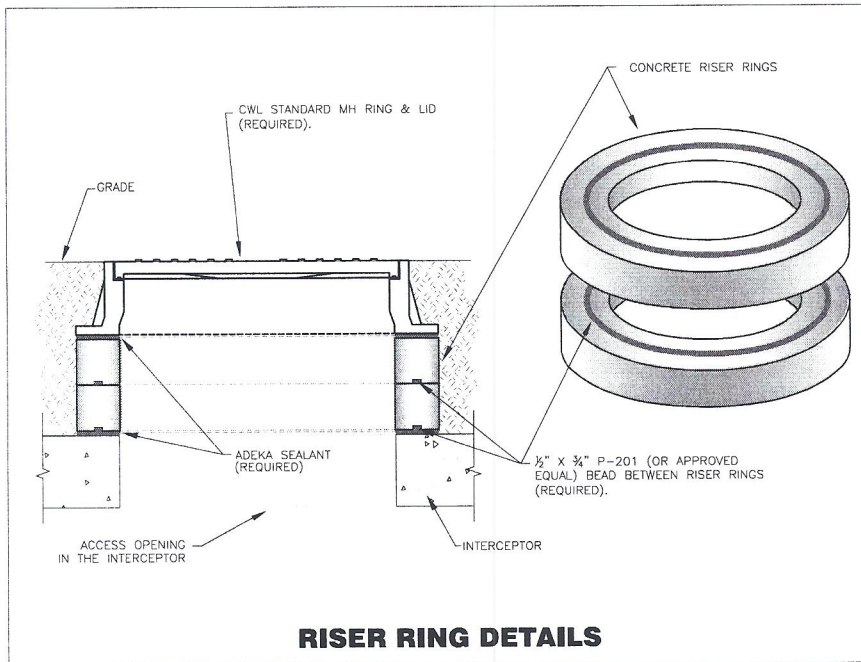
Prepared By:  
 Updated: 1/8/2015 4:01:32 PM  
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**APPROVED**  
 Filename:PT7



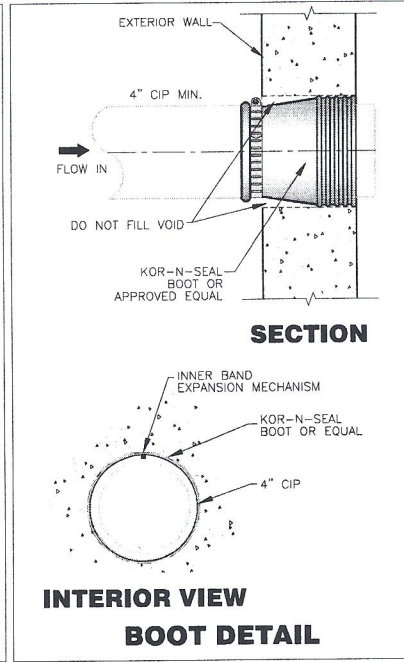
**CATCH BASIN DETAILS**  
 (TO BE USED IN CONJUNCTION WITH COVERED VEHICLE WASH/SERVICE BAYS)

CWL  
**PT7**

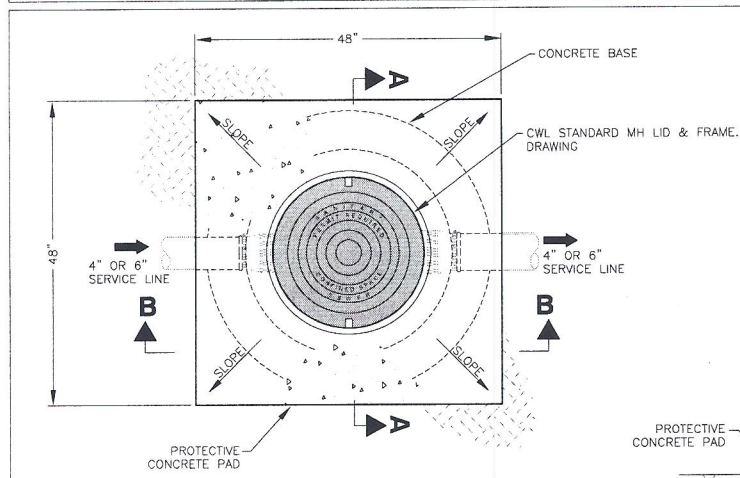




**RISER RING DETAILS**

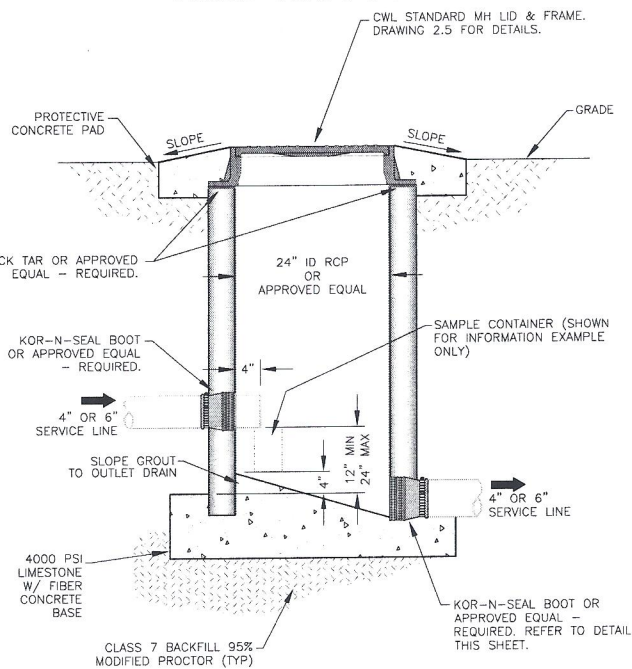


**INTERIOR VIEW  
BOOT DETAIL**

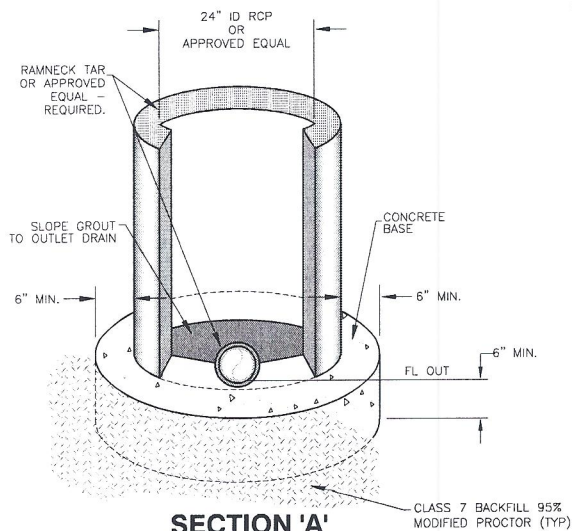


**PLAN VIEW**

**SAMPLING MANHOLE LESS THAN TWO FOOT DEEP**



**SECTION 'B'**



**SECTION 'A'  
RCP**

CWL  
**PT8**

**CONCRETE SAMPLING  
MANHOLE  
LESS THAN 2' DEEP MANHOLE  
DETAILS**



PREPARED BY:  
UPDATED: 1/8/2015 4:15:45 PM  
DRAWING STATUS: **APPROVED**  
FILENAME: PT8

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**Notes**