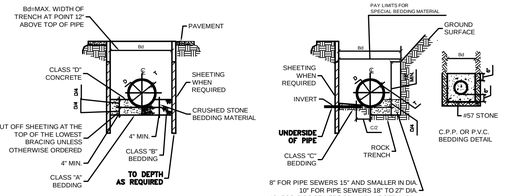
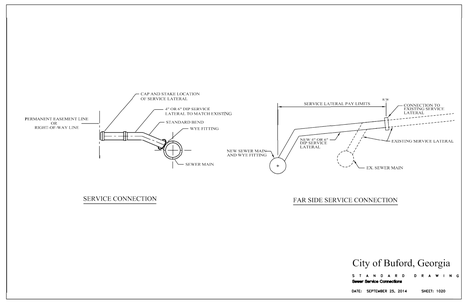


8" FOR PIPE SEWERS 15" AND SMALLER IN DIA.
10" FOR PIPE SEWERS 18" TO 27" DIA.
12" FOR PIPE SEWERS 30" AND LARGER IN DIA.

NOTES:
1. FOR PIPES WITH BELLS, BELL HOLES SHALL BE EXCAVATED.
2. FOUNDATION SHALL BE SHAPED TO FIT PIPE EXTERIOR
3. TRENCH SLOPING SHALL NOT BEGIN UNTIL 12 INCHES ABOVE THE TOP OF THE PIPE COMPACTION. THE BACKFILL OF ALL TRENCHES SHALL BE COMPACTED PER SPECIFICATIONS. BACKFILL MATERIAL SHALL BE FREE OF ROOTS, STUMPS OR OTHER FOREIGN DEBRIS AND SHALL BE PLACED AT OR NEAR OPTIMUM MOISTURE. ALL O.S.H.A. REGULATIONS MUST BE COMPLIED WITH AT ALL TIMES DURING CONSTRUCTION

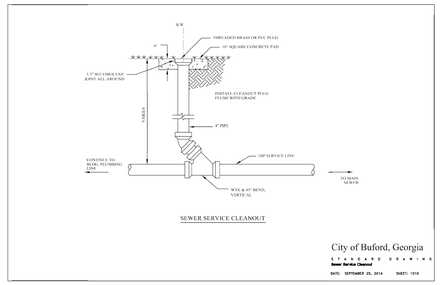
UTILITY TRENCHING
SCALE:NTS U28

ASTM - 3034 DR 35 P.V.C. PIPE			AWWA C - 900 PVC OR DUCTILE IRON PIPE (DIP)				ASTM F 405 & F 667 SMOOTH WALL CORRUGATED POLYETHYLENE PIPE			ASTM C 76 REINFORCED CONCRETE PIPE (RCP)				
D	T	Bd	D	T	Bd	C	D	T	Bd	D	T	Bd	S	
IN	IN	FT	IN	IN	FT	FT	IN	IN	FT	IN	IN	FT	IN	
6	0.16	2.02	6	0.36	2.00	0.41	12	2	2.67	0.95				
8	0.24	2.70	8	0.42	2.09	0.53	15	2 1/4	3.02	1.15				
10	0.30	2.88	10	0.48	2.26	0.65	18	2 1/2	3.02	1.35				
12	0.35	3.04	12	0.52	2.43	0.78	24	3	4.50	1.75				
15	0.437	3.28					30	3 1/2	5.08	2.20				
							36	4	5.67	2.60				
							42	4 1/2	6.25	3.00				
							48	5	6.83	3.50				
							54	5 1/2	7.42	3.70				
							60	6	8.00	4.05				
							66	6 1/2	8.58	4.65				
							72	7	9.17	5.07				



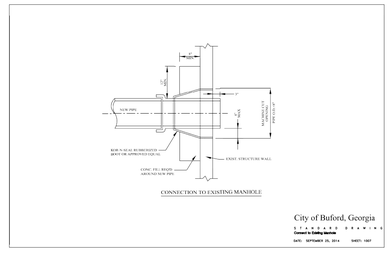
SERVICE CONNECTION — FAR SIDE SERVICE CONNECTION

City of Buford, Georgia
STANDARD DRAWING
Sewer Service Connection
DATE: SEPTEMBER 25, 2014 SHEET: 1020



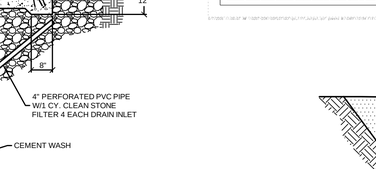
SEWER SERVICE CLEANOUT

City of Buford, Georgia
STANDARD DRAWING
DATE: SEPTEMBER 25, 2014 SHEET: 1010



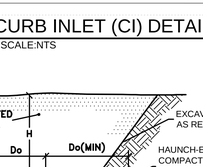
CONNECTION TO EXISTING MANHOLE

City of Buford, Georgia
STANDARD DRAWING
Connect to Existing Manhole
DATE: SEPTEMBER 25, 2014 SHEET: 1007



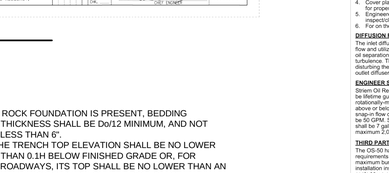
WATER METER BOX

City of Buford, Georgia
STANDARD DRAWING
Typical Water Meter Box Installation
DATE: SEPTEMBER 25, 2014 SHEET: 1100



TYPICAL GATE VALVE INSTALLATION

City of Buford, Georgia
STANDARD DRAWING
Typical Gate Valve Installation
DATE: SEPTEMBER 25, 2014 SHEET: 1104



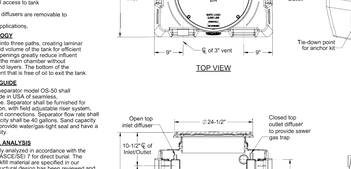
TYPICAL CROSS SECTION

MINIMUM BEARING DUCTILE IRON PIPE AREA (SQ.FT.)			
SIZE	22 1/2° BEND	45° BEND	90° BEND
4"	1.00	1.00	1.00
6"	1.00	1.00	1.00
8"	1.00	1.00	1.00
10"	1.00	1.00	1.00
12"	1.00	1.00	1.00
16"	1.00	1.00	1.00

NOTES
1. THE ABOVE BEARING AREAS ARE BASED ON A MINIMUM SOIL BEARING RESISTANCE OF 1500 PSF (ASSUMED).
2. NOTE: RESISTING STRENGTH = 1500 PSF
3. FOR 1.5 FACTOR OF SAFETY, MULTIPLY BY 1.5
4. FOR HANDRAIL OR TOP PLUG OF 4" 6" SIZE, USE PLUG OF 12" SIZE, AND TAPPED
5. FOR 3" PLUG, USE 8" PLUG
6. ALL BENDS, TEES AND DEAD ENDS REQUIRE CONCRETE THRUST BLOCKING. INCREASE IN THE CONCRETE THRUST BLOCK DIMENSIONS TO ACCOUNT FOR SOIL CONDITIONS, SUCH AS SOFT CLAY, MUCK OR MOVING SAND CONDITIONS, SHOULD BE ACCOUNTED FOR BY THE ENGINEER.
7. PROVIDE CONCRETE BLOCKING OR OBJECT BACKING AS SHOWN ON THE DRAWING FOR ALL FITTINGS.
8. CAUSE TYING, BLOCKING EMBRACE AT LEAST A LENGTH OF PIPE EQUAL TO THE LENGTH OF THE BACKING.
9. CONCRETE BLOCKING SHALL BE PLACED SO THAT ANCHORAGE FOR FITTINGS AND VALVES MAY BE READILY APPLIED. CONCRETE SHALL NOT BE PLACED OVER JOINTS FOR REPAIRS. MECHANICAL JOINT RETAINER GLANDS OR OTHER ACCEPTABLE METHODS MAY BE USED INSTEAD OF CONCRETE BLOCKING.

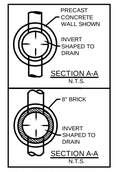
CONCRETE THRUST RESTRAINT

City of Buford, Georgia
STANDARD DRAWING
Concrete Thrust Restraint
DATE: SEPTEMBER 25, 2014 SHEET: 1107

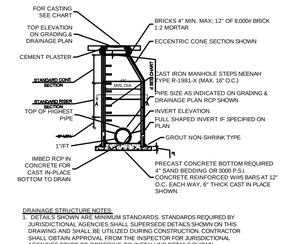


REFERENCE ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS."

HDPE BEDDING DETAIL

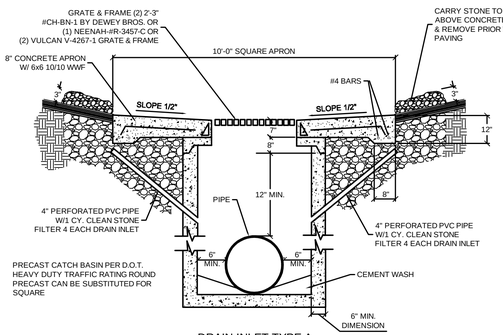


NOTE: "A" DURING CONSTRUCTION CONTRACTOR SHALL LEAVE OUT BRICK AT SUBGRADE LEVEL TO ALLOW WEEP-HOLES FOR DRAINAGE AFTER PLACEMENT OF BASE & PAVEMENT BRICKS SHALL BE GROUTED IN TO CLOSE WEEP-HOLES.



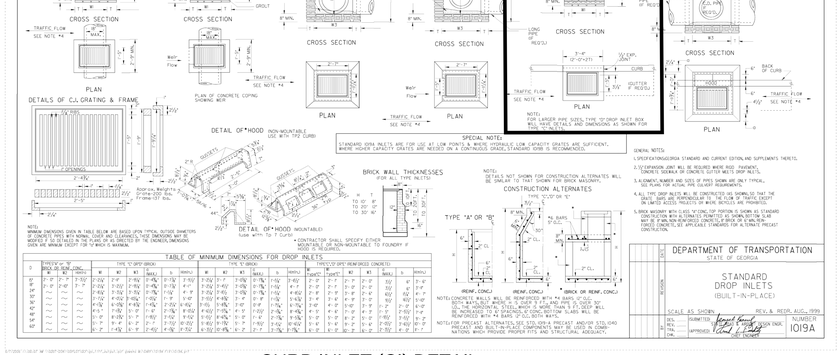
DRAINAGE STRUCTURE NOTES:
1. DETAILS SHOWN ARE MINIMUM STANDARDS. STANDARDS REQUIRED BY JURISDICTIONAL AGENCIES SHALL SUPERSEDE DETAILS SHOWN ON THIS DRAWING AND SHALL BE UTILIZED DURING CONSTRUCTION. CONTRACTOR SHALL OBTAIN APPROVAL FROM THE INSPECTOR FOR JURISDICTIONAL AGENCIES PRIOR TO ORDERING OR INSTALLING DETAILS SHOWN.
2. DURING CONSTRUCTION, CONTRACTOR SHALL LEAVE OUT BRICK AT SUBGRADE LEVEL.
3. DETAILS SHOWN INCLUDE BLOCK/BRICK OR PRECAST CONCRETE DRAINAGE STRUCTURES. EITHER STRUCTURE CAN BE ON A PRECAST OR CAST-IN-PLACE BOTTOM AS SHOWN. INVERTS OF STRUCTURES SHALL BE CONSTRUCTED SO THAT THEY DRAIN TO PIPE OUTLET.
4. TOP SLAB ON SHALLOW STRUCTURES CAN BE CAST-IN-PLACE WITH REINFORCING AS SHOWN OR PRECAST TO WITHSTAND H-20 TRUCK LOADING.

STORM MH/CATCH BASIN
SCALE:NTS G02

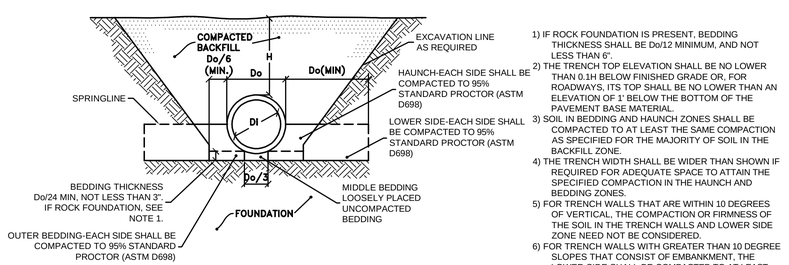


DRAIN INLET TYPE A

DRAIN INLET TYPE "A"
SCALE:NTS G19

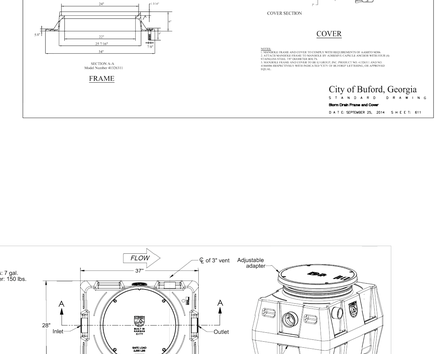


CURB INLET (CI) DETAIL
SCALE:NTS



1) IF ROCK FOUNDATION IS PRESENT, BEDDING THICKNESS SHALL BE Do/12 MINIMUM, AND NOT LESS THAN 6".
2) THE TRENCH TOP ELEVATION SHALL BE NO LOWER THAN 0.1H BELOW FINISHED GRADE OR, FOR ROADWAYS, ITS TOP SHALL BE NO LOWER THAN AN ELEVATION OF 1' BELOW THE BOTTOM OF THE PAVEMENT BASE MATERIAL.
3) SOIL IN BEDDING AND HAUNCH ZONES SHALL BE COMPACTED TO AT LEAST THE SAME COMPACTION AS SPECIFIED FOR THE MAJORITY OF SOIL IN THE BACKFILL ZONE.
4) THE TRENCH WIDTH SHALL BE WIDER THAN SHOWN IF REQUIRED FOR ADQUATE SPACE TO ATTAIN THE SPECIFIED COMPACTION IN THE HAUNCH AND BEDDING ZONES.
5) FOR TRENCH WALLS THAT ARE WITHIN 10 DEGREES OF VERTICAL, THE COMPACTION OR FIRMNESS OF THE SOIL IN THE TRENCH WALLS AND LOWER SIDE ZONE NEED NOT BE CONSIDERED.
6) FOR TRENCH WALLS WITH GREATER THAN 10 DEGREE SLOPES THAT CONSIST OF EMBANKMENT, THE LOWER SIDE SHALL BE COMPACTED TO AT LEAST THE SAME COMPACTION AS SPECIFIED FOR THE SOIL IN THE BACKFILL ZONE.

REINFORCED CONCRETE PIPE BEDDING
SCALE:NTS



City of Buford, Georgia
STANDARD DRAWING
Storm Drop Frame and Cover
DATE SEPTEMBER 25, 2014 SHEET: 611

SPECIFICATIONS
1. 4" Plain End inlet/outlet, 3" Plain End vents.
2. Max flow rate: 50 GPM
3. Capacity: Light oil: 1 gal. (7.6 cu. ft.); Oil: 40 gal.; Sands: 7 gal.
4. Load weight: Lightweight grade cover: 92 lbs.; w/ cast iron cover: 150 lbs.
5. Maximum operating temperature 140˚F continuous.
6. Composite cover: 2,000 lb. capacity (standard).

NOTES
1. Snap-in Flow control (ships with unit).
2. Seamless medium density polyethylene tank.
3. Unit supplied with built-in adapter for up to 3" of adjustability. Additional riser(s) available for deeper burial depth.
4. Cover placement allows full access to tank.
5. Engineered inlet and outlet diffusers are removable to inspect/clean piping.
6. For on-the-floor or buried applications.

DIFFUSION FLOW TECHNOLOGY
The inlet diffuser splits influent into three paths, creating laminar flow and utilizing the entire liquid volume of the tank for efficient oil separation. The calibrated openings greatly reduce influent turbulence. The influent enters the main chamber without disturbing the existing oil or sand layers. The bottom of the outlet diffuser allows only effluent that is free of oil to exit the tank.

ENGINEER SPECIFICATION GUIDE
Striem Oil Reserve™ oil/sand separator model OS-50 shall be lifetime guaranteed and made in USA of seamless, rotationally-molded polyethylene. Separator shall be furnished for above or below grade installation, with field adjustable riser system, snap-in flow control and (2) vent connections. Separator flow rate shall be 50 GPM and have a minimum of 400 gallons. Sand capacity shall be 7 gallons. Cover shall provide watertight-tight seal and have a maximum 2,000 lbs load capacity.

THIRD PARTY STRUCTURAL ANALYSIS
The OS-50 has been structurally analyzed in accordance with the requirements of IBC 2012 and ASCE/SEI 7 for direct burial. The analysis is based on the following assumptions per specific site installation instructions. The structural design has been reviewed and sealed by a professional engineer registered in the state of California. A sealed structural analysis report is available upon request.

OPTIONS
- ☐ **2P**: 2" Plain End Inlet / Outlet
- ☐ **2M**: 2" Male Thread Inlet / Outlet
- ☐ **3P**: 3" Plain End Inlet / Outlet
- ☐ **3M**: 3" Male Thread Inlet / Outlet
- ☐ **4M**: 4" Male Thread Inlet / Outlet
- ☐ **CC24**: Integral Membrane Clamping Collar Kit
- ☐ **C24-H**: Highway rated bolted composite cover
- ☐ **C24-MP**: UPC Pedal Bolting and Lock Assembly
- ☐ **CS1**: Cast Iron Cover
- ☐ **HDI**: Heavy Duty Cast Iron Cover

TwinGi Include:
- ☐ **SRC**: Sand Removal Cartridge
- ☐ **LR2**: Level Rite 2 Oil Sensor

MODEL NUMBER:	OS-50
DESCRIPTION:	50 GPM POLYETHYLENE OIL/SAND SEPARATOR
DWG BY:	WLF **DATE:** 4/29/22 **REV:** 1 **ECO:**

SPECIFICATION SHEET

Striem
3100 Brimhurst
Konnos City, KS 66115
(913) 441-0000
orders@striemco.com
www.striemco.com
Made in the U.S.A

SHOP DRAWING REVIEW
- ☑ NO EXCEPTIONS TAKEN
- ☐ MAKE CORRECTIONS NOTED
- ☐ REVISE AND RESUBMIT
- ☐ REJECTED

REVIEW IS FOR GENERAL COMPLIANCE WITH CONTRACT DOCUMENTS AND GENERAL DESIGN CONCEPT ONLY. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS, QUANTITIES, FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATION OF THE WORK WITH THAT OF ALL TRADES AND FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.

FRANZ — Derek Hissong — 8/17/22

CASE Engineering Inc. — 08/17/2022

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COLUMBIA ENGINEERING

CIVIL ENGINEERS * LAND PLANNERS
LANDSCAPE ARCHITECTS * SURVEYORS

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2862 BUFORD HIGHWAY
SUITE 200
DULUTH, GEORGIA 30096
(770) 925-0357

GEORGIA REGISTERED No. 27413 PROFESSIONAL ENGINEER JASON B. HURST

PROJECT
BUFORD OIL CHANGE
4445 NELSON BROGDON BLVD
BUFORD, GA

CLIENT
N3 PROPERTY ADVISORS
1240 N KIMBALL AVE
SOUTHLAKE TX

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☐ APPROVED FOR CONSTRUCTION
■ NOT APPROVED FOR CONSTRUCTION

REVISIONS	DATE

DRAWING TITLE

DETAILS

DRAWING FILE:		
DRAWN BY	KMB	DRAWING NO.
DATE	11/09/22	C-8
PROJECT NO.	5741.00	