

SECTION 22 - LAYING REINFORCED CONCRETE SEWER PIPE

- a. Pipe support for reinforced concrete sewer pipe shall provide a uniform bearing for the pipe barrel along its entire length. Particular care shall be taken to compact the soil under and around the curve of the pipe to give maximum support. Select soil compacted to 90% of maximum Proctor Density shall reach a point one foot above the top of the pipe.
- b. Pipe bedding classes for reinforced concrete pipe (as defined for these specifications) shall be as follows, and it shall be mandatory for the Contractor to employ the correct bedding within the limits defined in the bedding tables included herein.
 - 1) Class D bedding is that condition existing when the trench bottom is excavated slightly above grade and cut to finished grade by hand. Bell holes are dug, and the pipe bears uniformly along its entire length.
 - 2) Class C bedding is that condition existing when the trench bottom is undercut a minimum of four inches below the pipe bell and filled with #67 stone to the pipe grade in such a manner that the pipe will be bedded in stone to a vertical height equal to 1/6 the outside diameter of the pipe barrel.

SECTION 23 - LAYING PVC GRAVITY SEWER PIPE

The foundation for PVC gravity sewer pipes shall be a firm flat bottom trench of 4 inches of Class I material as defined in ASTM D2321-89 (1995) compacted with bell holes. Class II material may be used if the Contractor can verify that this type of soil is native to the site by conducting soil tests by a soil-testing geotechnical engineer.

SECTION 24 - DUCTILE IRON SEWER PIPE

- a. Ductile iron pipe shall be installed in accordance with the requirements of AWWA Standard C-600-87.
- b. Sewer pipe shall be laid to the line and grade shown on the plans. There shall be a minimum horizontal separation between water and sewer utilities of ten feet and a vertical separation of 24-inches.
- c. Protection shall be afforded to all underground and surface structures using methods acceptable to the Public Works Director or Town Engineer. The Contractor shall furnish this protection at the Contractor's own expense.
- d. Deviation from line and grade may be made on revised plans upon approval by the Public Works Department and identified on "as built" plans when such deviations arise from grade or line conflicts with existing utilities, structures, or other sources of conflict.
- e. Subsurface explorations shall be made by the Contractor where it is necessary to determine the location of existing pipes, valves, or other underground structures.
- f. After the foundation has been properly graded, bedded when applicable, and the bell holes dug, the pipe and accessories shall be carefully lowered into the trench by approved methods. Under no circumstances shall the pipe or accessories be dropped

or dumped into the trench. All damaged pipes and accessories shall be removed from the job. All damaged pipes shall be replaced at the expense of the Contractor.

- g. Laying of pipe and jointing of pipe shall be done according to the manufacturer's recommendation, with care being taken to provide a uniform bearing for the pipe. Bell and spigot of pipe shall be cleaned and properly lubricated where a mechanical joint or a "push on" type joint is employed.
- h. Open ends of the pipe shall be plugged with a standard plug or cap at all times when pipe laying is not in progress. Trench water shall not be permitted to enter the pipe.
- i. Bell ends will face the direction of laying, which must be upgraded unless otherwise directed by the Public Works Director or Town Engineer.

Where conditions are, in the opinion of the Town of Bunn Inspector, unsuitable for laying pipe because of weather or trench conditions, the Contractor shall be required to cease work until permission is given by the Town of Bunn Inspector for work to commence again, providing such conditions have been corrected.

SECTION 25 - SEWER LATERALS

- a. Pipe for 4-inch sewer laterals shall be PVC pipe, DIP, or CIP. Where installation by boring is specified, a four-inch ductile iron pipe shall be used. DIP or CIP (4" only) must be used for deep or shallow installations under the same standards as sewer mains. Aerial service installations shall be constructed of 4" DIP. A minimum grade of 1% shall be maintained with a four and six-inch pipe. Each lateral shall be sealed at the end with an approved watertight plug. A six-inch service lateral must connect to a manhole. All laterals shall be left exposed until the inspectors can verify the installation of each plug. The Contractors must coordinate these inspections with the Town of Bunn Public Works. Laterals covered up prior to inspection shall be subject to excavation at the Contractors expense to provide for a visual inspection.
- b. Each sewer lateral shall be installed from the main to the street right-of-way line where a one-piece combination wye and cleanout stack will be installed. The wyes on the laterals shall be sealed at the property line with a permanent plug.
- c. Trench support, bedding, and backfill for laterals shall conform to the same specifications as those for sewer mains. The Contractor shall properly backfill under all wye, and lateral connections at the main and shall be backfilled with #67 or #57 stone.
- d. Where laterals are bored, the face of the bore cut shall be a distance of five feet from the edge of the pavement on either side unless approval to the contrary is given by the Public Works Director.
- e. Sewer laterals four inches in diameter shall be connected to the main utilizing an in-line wye or a tap and saddle, installed over a hole cut in the top quadrant of the main at an angle of forty-five degrees, with respect to the direction of flow. The hole shall be cut with a mechanical circle-type saw cutter designed for the particular use and rendering a smooth, uniform cut with no damage to the main and which retrieves the coupon.

- f. All 4" sewer services may be tapped directly into 6, 8, 10, and 12-inch mains or manholes. Taps can only be made using a mechanical tapping machine or other approved device. All sanitary sewer service connections 6 inches and larger shall be made into manholes only. Service clean-outs shall be located at the right-of-way line or the easement boundary line. The maximum vertical drop for 4-inch and 6-inch service into a manhole shall be 30 inches. Any greater height will require an inside drop.
(See Sanitary Sewer Standard Details)
- g. All laterals tapped on newly constructed mains shall be air tested with the main. All laterals tied to a newly constructed manhole shall be vacuum tested with the manhole or conduct a separate air or water head test before any plumber connections are made.

SECTION 26 - MANHOLES

- a. Manholes on all lines twelve inches in diameter or smaller shall have a minimum inside diameter of four feet.
- b. Inverts shall be constructed with a width equal to that of the effluent pipe, height to the spring line, and invert "shelves" from that point upward at 60 deg. to manhole walls, it shall be so brushed and troweled that a minimum energy loss occurs in the manhole from invert roughness. The maximum grade on an invert of less than 2.5 feet shall be no greater than 6 inches across the manhole. "Bowl" shaped inverts shall not be allowed in the sanitary sewer collection system.
- c. All manholes in road right-of-ways will be flush with a grade notwithstanding 100-year flood requirements. In easements, manholes will be a minimum of 12 inches above the ground.
- d. All new manholes must be vacuum tested in accordance with the procedure. The Contractor shall furnish all labor, equipment, and any appurtenant items necessary to perform the vacuum test satisfactorily. All equipment will be approved for vacuum testing.

All lifting holes shall be plugged with an approved non-shrink grout.

All pipes entering the manhole shall be plugged. The Contractor shall securely brace the plugs to keep them from being drawn into the manhole.

All service connections tied to manholes shall also be vacuum tested with the manholes.

The test head shall be placed inside the top of the cone section of the manhole, and the seal inflated in accordance with the manufacturer's recommendations.

A vacuum of 10-inches of mercury shall be drawn, and the vacuum pump shut off. Inflate the compressor band to affect a seal between the vacuum base and the manhole cone section. Connect the vacuum pump to the outlet port with the valve open. With the valves closed, the time for the vacuum to drop to 9-inches of mercury shall not be less than that shown in the following table.

A confined space entry permit is required before anyone enters the manhole.

Manhole Depth**Diameter of Manhole**

	<u>48" Dia.</u>	<u>60" Dia.</u>	<u>72" Dia</u>
10 Ft. or Less	60 Sec.	75 Sec.	90 Sec.
>10 Ft. but<15 Ft.	75 Sec.	90 Sec.	105 Sec.
>15 Ft.	90 Sec.	105 Sec.	120 Sec.

(Times shown are minimum elapsed times for a drop in a vacuum of 1-inch of mercury).

If the manhole fails the initial test, necessary repairs shall be made with an approved non-shrink grout. Re-testing shall proceed and continue until a satisfactory test is accomplished.

- e. All manhole rings on manholes other than flat-tops shall be bolted to the cone section and sealed down with asphalt cement or "ram-neck.
- f. All manhole joints must be waterproofed with asphalt cement or "ram-neck". All exterior joints shall be wrapped with a butyl resin sealant of 8" width.
- g. All main and service pipe connections into manholes must be cored with a concrete coring machine, and the pipe connection must be made with a flexible rubber boot.
- h. Adjustment rings used within streets shall be fixed with mortar.

SECTION 27 - BACKFILLING

- a. The haunch for PVC pipes shall be with #67 or #57 stone (Class I material) 4 inches below and up to the springline of the pipe. Care shall be taken to work the haunch well under the bottom of the pipe. The initial and final backfill shall be with suitable native material. No rocks, boulders, or stones four inches or larger shall be included in the backfill. The haunch shall be tamped to 95% standard Proctor density in six-inch lifts.
- b. For PVC sewer installations, Class II material may be allowed for the bedding, housing, and initial backfill if the Contractor can verify that this type of soil is native to the site by having soil tests made by a soil-testing agency. Soil sample borings shall be taken as directed by the Town of Bunn inspector to a depth equal to or greater than the trench bottom elevation shown on the plans or in the specs. The Public Works Director must approve the results prior to pipe installation. The bedding and backfilling shall be in conformance with ASTM standards, and the various soil classes are defined below:
 - 1) Class I - Angular, 6 to 40mm (1/4 to 1 1/2 inch), graded stone, including a number of fill materials that have regional significance, such as coral, slag, cinders, crushed stone, and crushed shells.
 - 2) Class II - Course sands and gravel's with a maximum particle size of 40mm (1 1/2 inch), including variously graded sands and gravel's containing small percentages of fines, generally granular and non-cohesive, either wet or dry.

Soil Types GW, GP, SW, and SP are included in this class. (GW - well-graded gravel, GP - poorly graded gravel; SW - well-graded sand, SP - poorly graded sand.)

- 3) Class III - Fine sand and clay-type gravel, including fine sands, sand-clay mixtures, and gravel-clay mixtures. Soil Types GM, GC, SM, and SC, are included in this class. (GM - silty gravel, GC - clayey gravel, SM - silty sand, SC - clayey sand.)
 - 4) Class IV - Silt, silt clays, and clays, including inorganic clays and silts of medium to high plasticity and liquid limits. Soil Types MH, ML, CH, and CL, are included in this class. These materials are not recommended for bedding, haunching, or initial backfill on PVC pipes. (MH - silt soil with high liquid limit, ML - silt soil with low liquid limit, CH - clayey soil with high liquid limit, CL - clayey soil with low liquid limit.)
- c. All backfill shall be compacted in six-inch lifts measured from the foundation to one foot above the top of the pipe and then in twelve-inch lifts to the top of the trench when in easements. Sewer mains in street rights-of-way shall be compacted in six-inch lifts all the way to the top of the trench.
 - d. The Engineer shall approve the material for backfilling. In areas where settlement or bearing capacity are not a major consideration, the Town Engineer may give permission for a low grade of material to be backfilled from a point two foot above the top of the pipe, but in no event will excavated rock larger than four inches at any point be used for backfill material.
 - e. Where backfill material is unsuitable, in the opinion of the Public Works Director or Town Engineer, the Contractor may be directed to dispose of the unsuitable material and provide material suitable to the Public Works Director or Town Engineer.
 - f. All backfill shall be compacted in (6) six-inch lifts measured from the pipe foundation upward, except as noted in section (c) above. Backfill for the roadway shall be compacted to at least 95% of maximum soil density in those areas where the supporting capacity of the soil is of prime consideration. Laboratory determination of maximum soil density will follow the procedure of AASHTO T99-86. Field determination of the soil density in place shall follow the procedure of AASHTO T191-86 or T204-86. The result of any one test may be a minimum of 90% of maximum density, but the average of any three tests in an area shall be 95% of maximum density. All tests shall be conducted at the direction of the Town of Bunn Inspector, borne by the Contractor, with the provision that the Town of Bunn will test an area two times only where both tests fail. The Contractor shall then be required to submit satisfactory evidence that his ditch compaction meets the specifications.

SECTION 28 - SURFACE RESTORATION

- a. All disturbed surfaces and property thereon shall be restored to a condition equal to that existing before construction began. The Contractor shall maintain and be responsible for all ditches, paved streets, curbs, gutters and/or sidewalks until the Contractor's one-year warranty expires. It is suggested the Developer/Contractor video the proposed construction area prior to beginning work. The Contractor, with permission of the inspector, may place temporary or permanent asphalt material in

pavement cuts. Asphalt compaction shall be done with gasoline or diesel-powered smooth drum asphalt roller.

- b. All easements will be seeded in accordance with the approved Sedimentation and Erosion Control Plan and left so conventional mowers can mow them unless approved by the Public Works Department or unless NCDEQ requires some other form of rip-rap or other specified material. In remote areas, easements will be seeded with quality fescue grass. In residential areas, easements will be seeded with the Contractor's grass seed mix unless directed otherwise by the Public Works Director. The Contractor shall guarantee a good uniform stand of grass and shall reseed any bare or thin spots. The Contractor will be responsible for a one-year warranty on materials and workmanship, which shall begin after final acceptance by the Town of Bunn.

SECTION 29 - EROSION CONTROL

Erosion control measures shall be performed by the Contractor, conforming to the requirements of and in accordance with plans approved by the State of North Carolina Department of Environmental Quality, North Carolina Sedimentation Control Commission, Town of Bunn., and as per the erosion control plan portion of the construction drawings and these specifications. The Contractor shall not allow mud and debris to accumulate in the streets. The sedimentation and erosion control plan and the permit shall remain on-site at all times. Should the Contractor pump water from trenches during construction, appropriate siltation preventative measures shall be taken prior to the entry into any storm drain or stream. The Town Engineer shall approve all materials used for erosion control prior to installation by the Contractor.

Temporary and permanent erosion control measures shall be shown on the plans. Temporary and permanent erosion control work shall be coordinated throughout the project to provide effective and continuous erosion control throughout construction and post-construction, which minimizes siltation of streams, lakes, reservoirs, other water impoundments, ground surface, or other property. Seeding and mulching shall be carried out immediately behind the construction. ¹¹

Temporary erosion control measures shall include but not be limited to swaled easements, silt fences, crushed stone check dam devices, silt basins (sedimentation traps), mulching, earth berms, and rip-rap.

Permanent erosion control measures shall include but not be limited to swaled easements, rip-rap, and seeding of disturbed areas.

Erosion and siltation shall be controlled on projects by using swales to control run-off and convey run-off to controlled discharge points, by silt fences, rip-rap, crushed stone, and earth berms to contain silt, with pipe culverts where major access or haul roads cross drainage ditches or streams, silt basins where pipelines cross drainage ditches or streams. Seeding and mulching will be performed as soon after pipe installation as possible. When temporary measures are removed after the completion of the project, the disturbed area must be stabilized, as required by the approved erosion control and sedimentation plan.

All temporary erosion control measures must be removed and disposed of by the Contractor within the one-year anniversary date of the completion of the project but after the establishment of ground cover. Failure of the Developer/Owner/Contractor to remove these devices may result in the Town removing the devices and assessing the Developer/Owner.

SECTION 30 - MAINTAINING SERVICE

When replacing or extending sanitary sewer mains, the Contractor shall maintain existing service to all properties being served.

SECTION 31 - GUARANTEE

The Contractor shall guarantee all material, equipment, and workmanship for a period of at least one year after final acceptance by the Town of Bunn. The Public Works Department is responsible for issuing final acceptance letters of sewer utilities by the Town of Bunn.

SECTION 32 - WETLAND/ STREAM BUFFERS

Conditions of 401/404 permits shall be strictly followed to the satisfaction of the Corp of Engineers. All Tar-Pamlico buffers shall be maintained as required by NCDWQ.

SECTION 33 - TEST AND INSPECTION

- a. Sewer lines shall be visually inspected from every manhole by using television cameras or other devices for visual inspections. The lines shall exhibit a fully circular pattern when viewed from one manhole to the next. In addition to a visual inspection, deflection tests shall be performed on all pipes.
- b. The test shall be conducted after the final backfill has been in place for at least 30 days. The deflection test shall be conducted using a rigid ball or mandrel; it shall have a diameter equal to 95% of the inside diameter of the pipe. The test shall be performed without mechanical pulling devices. No pipe shall exceed a deflection of 5%, calculated by using the base inside diameter as furnished by ASTM. Lines that do not exhibit a true line and grade and have structural defects shall be corrected to meet these specifications. The Contractor will furnish the mandrel and proving ring. The latest applicable ASTM shall be used.
- c. Sanitary sewer lines will be tested by using the low-pressure air test. Sewer laterals will be tested along with the main. Proper plugs must be installed on the laterals at the cleanout stack. All plugs should be properly installed to withstand the test pressure. Mechanical plugs must be installed throughout the time of construction of any sanitary sewer extension until final acceptance. All plugs must be securely tied off with steel cable within the manhole and must have a secure marking attached to the plug indicating the utility Contractor to whom the plug belongs. The Contractor must remove all plugs upon acceptance that the sewer facilities are sufficiently and functionally complete so as to accept flow and PRIOR to the mains above the plug location being placed into service and/or accepting any flow of sewage.
- d. The low-pressure air test in accordance with ASTM F1417 or C924 (F1417 for PVC and Ductile; C924 for Concrete Pipe) will be used on all mains and laterals. Prior to testing, the main shall be clean of debris (to the satisfaction of the inspector) and flushed with water. In doing the air test, it is necessary that plugs be secured properly and braced. In doing the air test, no person will be allowed in the main while it is pressurized. The line is to be pressurized to 4 psi initially and stabilized. After stabilization, the pressure will be decreased to 3.5 psi, and the inspector will determine how long it takes for the pressure in the line to drop to 2.5 psi.

To simplify the ASTM procedure, use the following table to determine the test time. If there are multiple sizes, add the various times together.

Normal Pipe Size (inches)	Time (t) Minutes/100 ft.
4	0.3
6	0.7
8	1.2
10	1.5
12	1.8
15	2.1
18	2.4
21	3.0
24	3.6
27	4.2
30	4.8
33	5.4
36	6.0
42	7.3

The pipe is acceptable if the pressure stays between 3.5 and 2.5 psi for the test time length. If not, the section is not properly installed. Correct and retest.

- e. All tests shall be made in the presence of the Contractor, his representative, the Public Works Director, the Town of Bunn Inspector, or the Town Engineer.
- f. Materials and construction methods in these specifications are of such nature as to ensure maximum protection for the sewer from infiltration. The Contractor shall be responsible for the sewer conforming to the above limits for a period of one year from the date of final acceptance.
- g. When sanitary sewer services are installed as a part of the same approval of the sanitary sewer mains, such as in new subdivisions/annexation areas, the air test of the sewer mains shall be performed with the services and clean-outs in place. Services tied to a newly constructed manhole shall be vacuum tested with the manhole. Services not tested with newly constructed mains or manholes shall have a separate air test before any plumber connections are made.
- h. Prior to final acceptance all sanitary sewer mains shall be camera inspected at the Contractor/Developers expense and 3 copies provided in digital format to the Town of Bunn Public Works Department. A copy of the aforementioned video shall be supplied to the Town of Bunn in a DVD format prior to final acceptance.

SECTION 34 - DEFLECTION TESTING FOR PVC SEWER PIPES

No sooner than thirty days after the final backfill installation, a deflection test shall be executed on the sewer line. The maximum allowable deflection shall be five percent for PVC sewer pipes. The test shall use a minimum of nine pronged mandrels pulled through the pipe. The mandrel size shall be calculated by $(1 - \text{allowable deflection percent}) \times (\text{Base inside diameter})$. The base inside diameter is the diameter as identified in the shop drawing or advertised pipe literature. It shall not include any additional reduction pipe diameter due to manufacturing tolerances.

The contact length of the mandrel shall be at least eight inches.

The Contractor shall correct any lines not meeting this test (at his expense) and the test repeated.

SECTION 35 - SEWER MAIN AND SERVICE ABANDONMENT

Sewer services to a main shall be abandoned by removing the saddle and replacing the saddle with a 360-degree stainless steel repair sleeve. The remaining portion of the sewer service shall be removed from the main to the right-of-way line and shall be disposed of properly. Sewer main abandonment must be performed in accordance with a plan approved by the Public Works Department. Service and main abandonment require inspection by the Public Works Department (919) 496-2992.

SECTION 36 - SEALED AS-BUILT PLANS

Certified surveyed "As built" plans and profiles, sealed by a Professional Land Surveyor, shall be furnished to the Public Works Department by the Engineer of Record upon completion and prior to acceptance of the public main by the Town of Bunn and at the completion of private systems. The surveyed "as built" plans shall include accurate information regarding pipe size, pipe material, pipe length, manhole size, invert and top elevations, and accurate alignment and location of the constructed sewer mains, manholes, and services and all other information included on the original design plans. The surveyed "as-built" plans shall have North Carolina Geodetic Survey grid coordinates (NAD83) for all manholes and mains, along with the depth information. The sewer permit number will also be provided on the plans. The surveyed "as built" plans shall be supplied to the Public Works Department prior to the issuance of the letter of acceptance. All service stubs shall be shown on the surveyed as-built plans.

Certified surveyed "As-Built" plans for sewer shall be provided in a digital format for utilities. The digital file needs to show the overall sewer system layout along with the property or subdivision boundaries and connecting manhole. The sewer collection system should show main sizes, material, manholes, rim and invert elevations, and other relevant information (pump stations, force mains, siphons, clean-outs, etc.). The digital file should be delivered in DXF format. If this is not possible, then DWG is also an acceptable format.

SECTION 37 - GENERAL ACCEPTANCE

The Developer or his representative must notify the Public Works Department in writing before installation and scheduling the inspection. Once the project is complete, a punch list and inspection are scheduled for deficient items. Once the deficient items are repaired and/or replaced to meet Town of Bunn standards and specifications, the Developer or his representative shall submit the following items to the Town of Bunn Public Works Department.

- a. A Professional Engineer licensed in the State of North Carolina shall provide a certified statement of the cost of the public utilities installed.
- b. A Professional Engineer's certified statement indicates that the work has been built per the approved construction plan set.
- c. A release of liens statement from the Owner/Developer stating that all materials and workmanship associated with the sewer main has been paid in full.

- d. Certified surveyed "As-Built" plans and profiles shall be furnished by the Engineer of Record upon completion and acceptance by the Town of Bunn as stated above.
- e. A statement from the Developer ensuring a one-year written warranty to the Town of Bunn prior to issuance of the letter of acceptance.
- f. A recorded map to the Town of Bunn showing all public rights-of-way and easements.
- g. The Town Engineer shall keep a copy of the "as-built" plans on file indefinitely.

SECTION 38 - SEWER BACKWATER VALVE

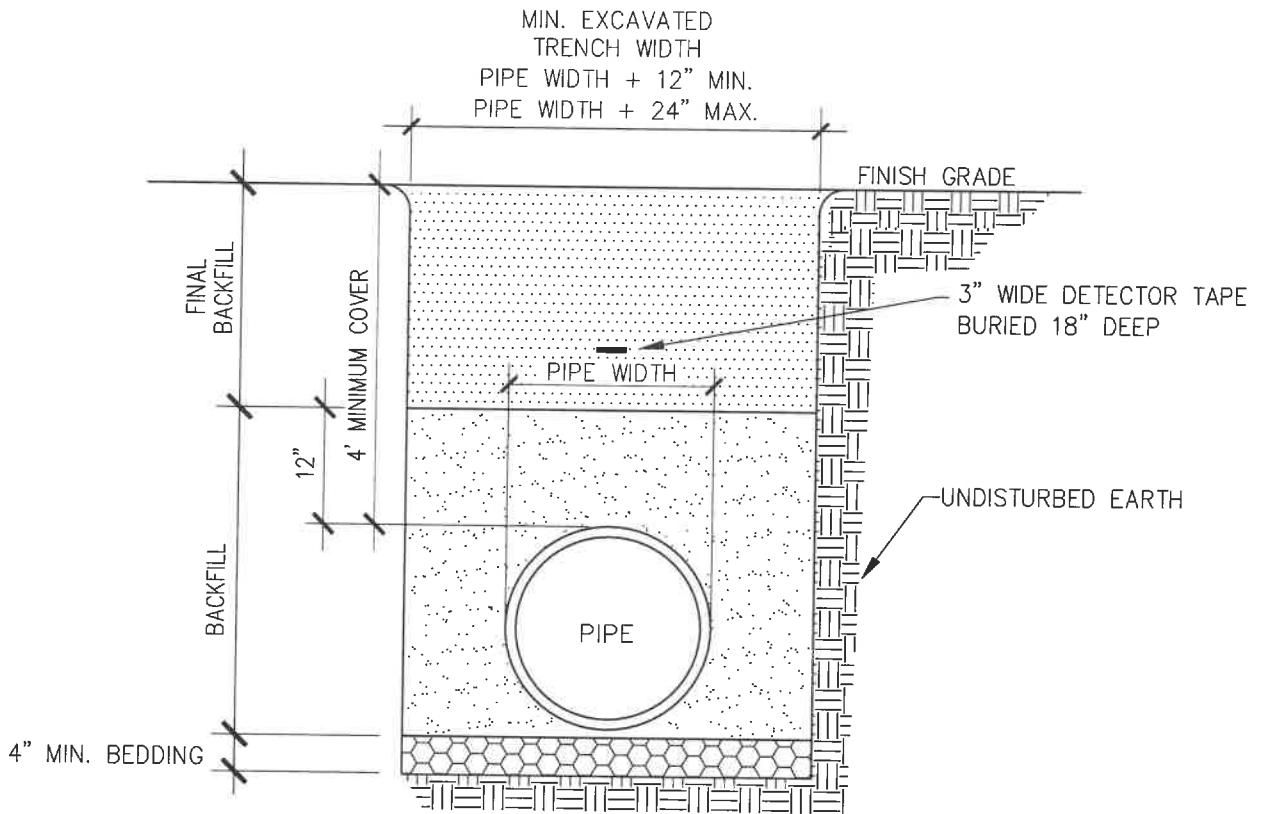
Pursuant to NC State Plumbing Code, homes and other buildings constructed with sanitary sewer drains at an elevation of one (1) foot above the next upstream manhole in the sanitary sewer collection system or lower must be equipped with a sewer backwater valve, installed at a location where it can be maintained by the Owner. The Owner and or Developer shall bear the cost for the said valve. The maintenance of a backwater valve shall fall upon the Developer/Owner or successors and assigns. **The Town of Bunn shall bear NO responsibility for damages resulting from sewage back-up.**

SECTION 39 - FINAL ACCEPTANCE

Prior to acceptance of the sewer system by the Town, a letter of credit from the owner will be required of 110% of the value until the one-year warranty period expires.

END OF SECTION

Sewer System Details



NOTES:

1. BEDDING AND BACKFILL SHALL BE #57 OR #67 STONE.
2. BEDDING WITH STONE TO SPRING LINE FOR DEPTHS UP TO 12". BACKFILL WITH STONE TO TOP OF PIPE FOR DEPTHS GREATER THAN 12".
3. UNDER AREAS TO BE SEEDED OR SODDED, COMPACT SUCCEEDING LAYERS OF FINAL BACKFILL IN 12" LOOSE LIFTS TO 95% MAXIMUM DENSITY.
4. UNDER STRUCTURES, PAVEMENTS, AND ROAD SHOULDERS, COMPACT SUCCEEDING LAYERS OF FINAL BACKFILL IN 6" LOOSE LIFTS TO 95% MAXIMUM DENSITY EXCEPT COMPACT TOP 12" OF SUBGRADE TO 95% MAXIMUM DENSITY.
5. INSTALL 3" WIDE DETECTOR TAPE AT 18" DEPTH. TAPE SHALL HAVE MIDDLE FOIL LAYER (PVC OR HDPE PIPE ONLY).

DATE	BY	DESCRIPTION
REVISIONS		

TOWN OF BUNN PUBLIC WORKS

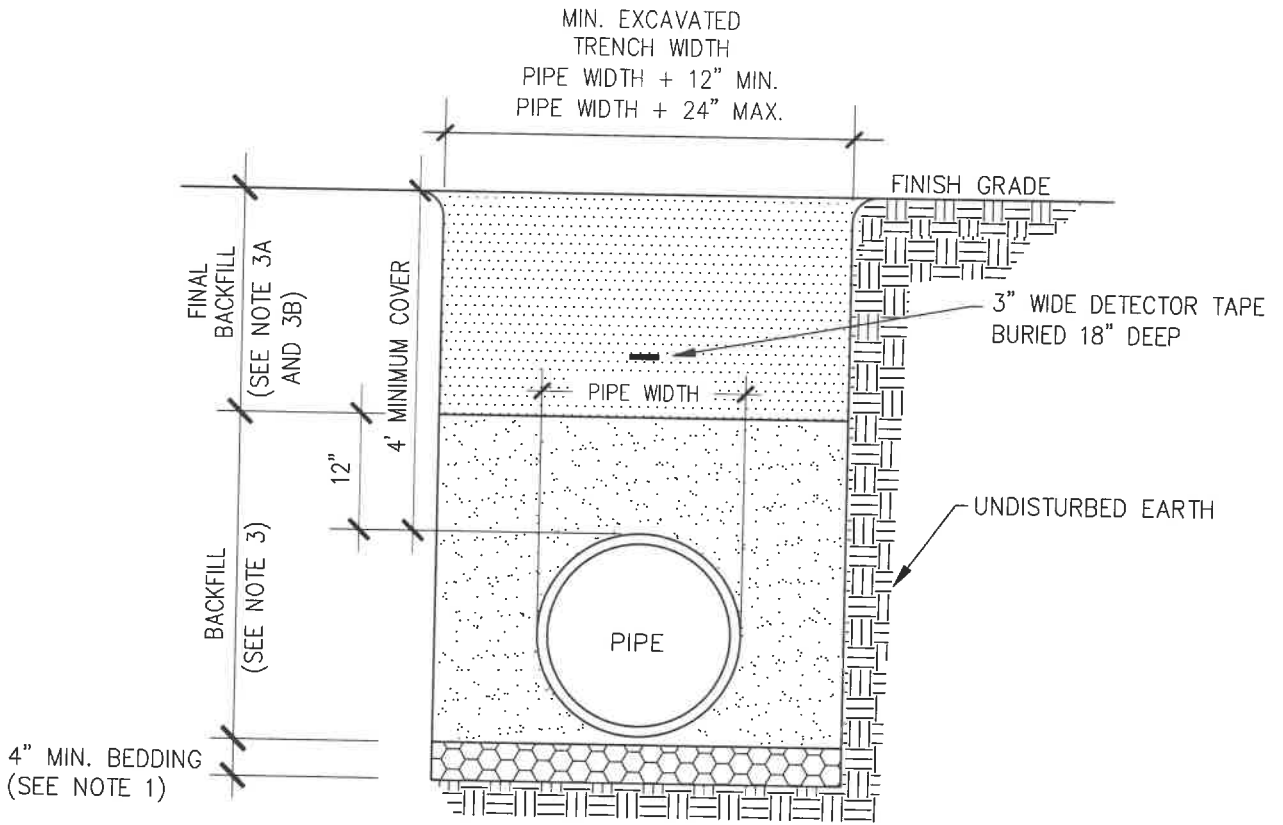
SANITARY SEWER MAIN
TRENCH DETAIL

SCALE

DRAWING #

N.T.S.

S-1



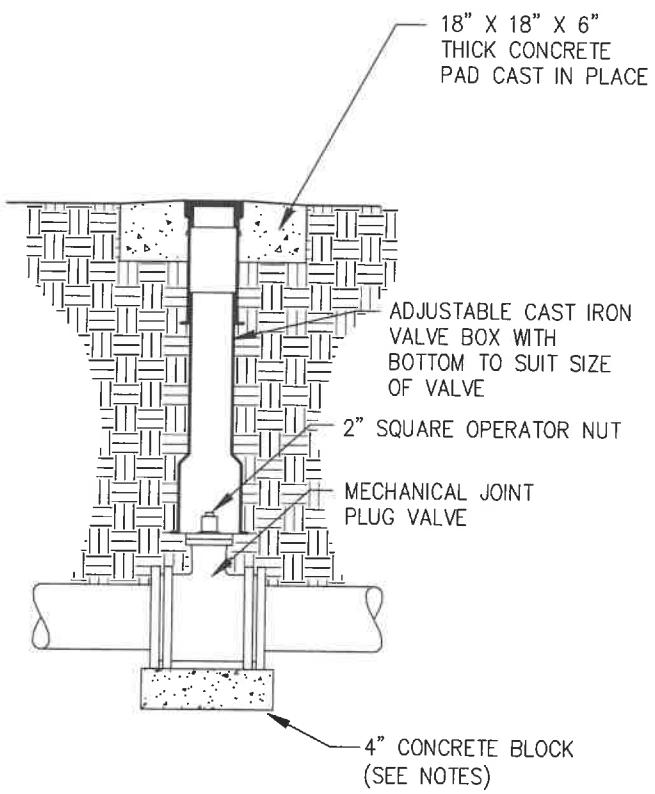
NOTES:

1. LAYING CONDITIONS AS PER AWWA C600 AND C605 STANDARDS.
2. BEDDING MATERIAL SHALL BE 4" MINIMUM THICKNESS, LOOSE SOIL (DEFINED AS NATIVE SOIL EXCAVATED FROM TRENCH), FREE FROM ROCKS AND SHALL PROVIDE UNIFORM SUPPORT FOR THE FULL LENGTH OF PIPE. COMPACT TO 95% MAXIMUM DENSITY.
3. INITIAL BACKFILL SHALL BE LIGHTLY CONSOLIDATED IN MAXIMUM 6" LOOSE LIFTS, COMPACTED TO 95% MAXIMUM DENSITY.
 - A. UNDER AREAS TO BE SEEDED OR SODDED, COMPACT SUCCEEDING LAYERS OF FINAL BACKFILL IN 12" LOOSE LIFTS TO 85% MAXIMUM DENSITY.
 - B. UNDER STRUCTURES, PAVEMENTS AND ROAD SHOULDERS, COMPACT SUCCEEDING LAYERS OF FINAL BACKFILL IN 12" LOOSE LIFTS TO 95% MAXIMUM DENSITY EXCEPT COMPACT TOP 12" OF SUBGRADE TO 98% MAXIMUM DENSITY.
4. INSTALL 3" WIDE DETECTOR TAPE AT 18" DEPTH. TAPE SHALL HAVE MIDDLE FOIL LAYER (PVC OR HDPE PIPE ONLY).

DATE	BY	DESCRIPTION
REVISIONS		

TOWN OF BUNN PUBLIC WORKS		
STANDARD SEWER FORCE MAIN TRENCH DETAIL	SCALE	DRAWING #
	N.T.S.	S-2

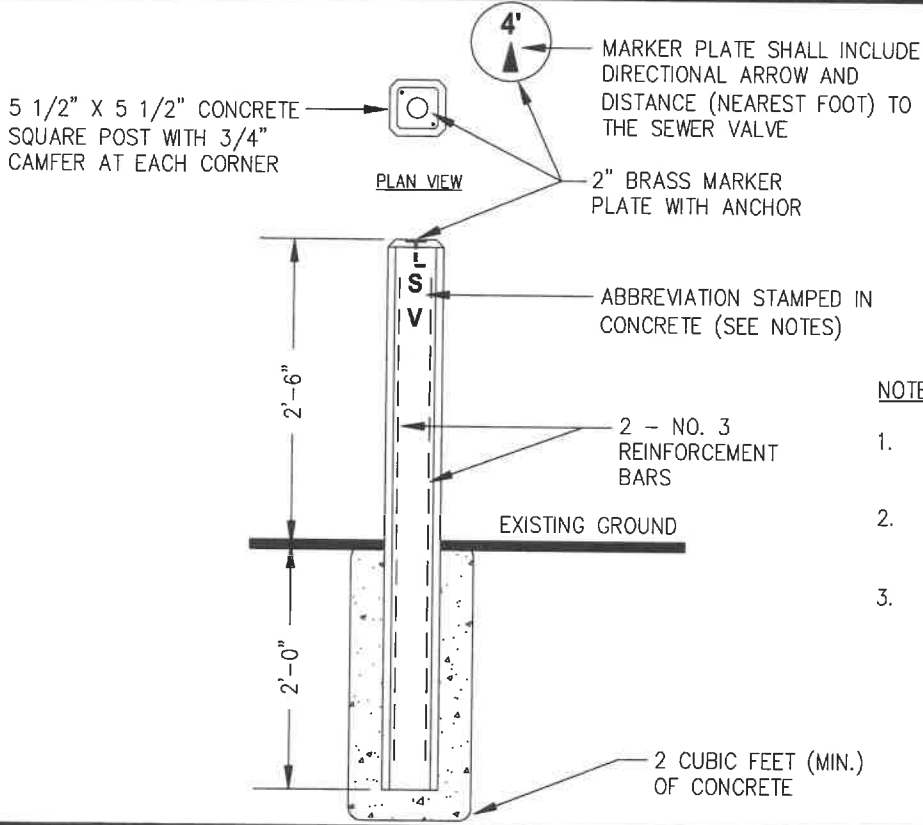
VALVE ASSEMBLY DETAIL



NOTES:

1. PLACE VALVES ON 4" CONCRETE BLOCK.
2. WHERE PVC PIPE IS BEING INSTALLED, 6" OF COMPACTED #57 STONE MAY BE USED IN LIEU OF THE CONCRETE BLOCK.
3. MAXIMUM SPACING FOR SEWER FORCE MAIN ISOLATION VALVES IS 1,000 LINEAR FEET.

MARKER DETAIL



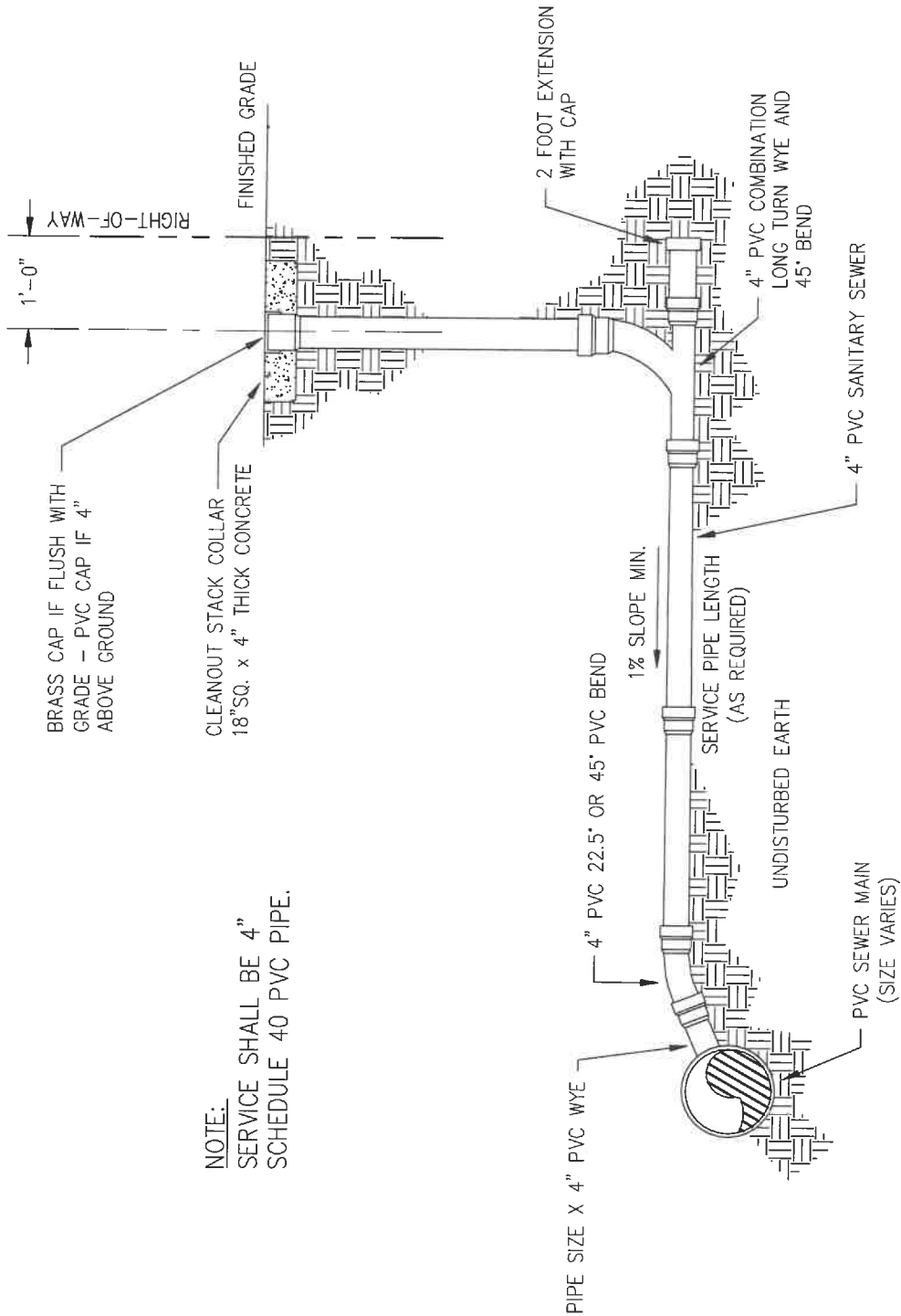
NOTES:

1. INSTALL MARKER POSTS ON THE EDGE OF THE DOT RIGHT-OF-WAY LINE.
2. PROVIDE MARKER POSTS AT ALL LINE VALVES.
3. ABBREVIATION "SV" SHALL BE STAMPED ON POST TO INDICATE "SEWER VALVE".

TOWN OF BUNN PUBLIC WORKS

VALVE ASSEMBLY AND MARKER		SCALE	DRAWING #
DETAIL FOR SEWER FORCE MAINS		N.T.S.	S-3

DATE	BY	DESCRIPTION
REVISIONS		



NOTE:
 SERVICE SHALL BE 4"
 SCHEDULE 40 PVC PIPE.

BRASS CAP IF FLUSH WITH
 GRADE - PVC CAP IF 4"
 ABOVE GROUND

CLEANOUT STACK COLLAR
 18" SQ. x 4" THICK CONCRETE

2 FOOT EXTENSION
 WITH CAP

4" PVC COMBINATION
 LONG TURN WYE AND
 45° BEND

4" PVC SANITARY SEWER

1% SLOPE MIN.

4" PVC 22.5° OR 45° PVC BEND

SERVICE PIPE LENGTH
 (AS REQUIRED)

UNDISTURBED EARTH

PIPE SIZE X 4" PVC WYE

PVC SEWER MAIN
 (SIZE VARIES)

DATE	BY	DESCRIPTION
REVISIONS		

TOWN OF BUNN PUBLIC WORKS

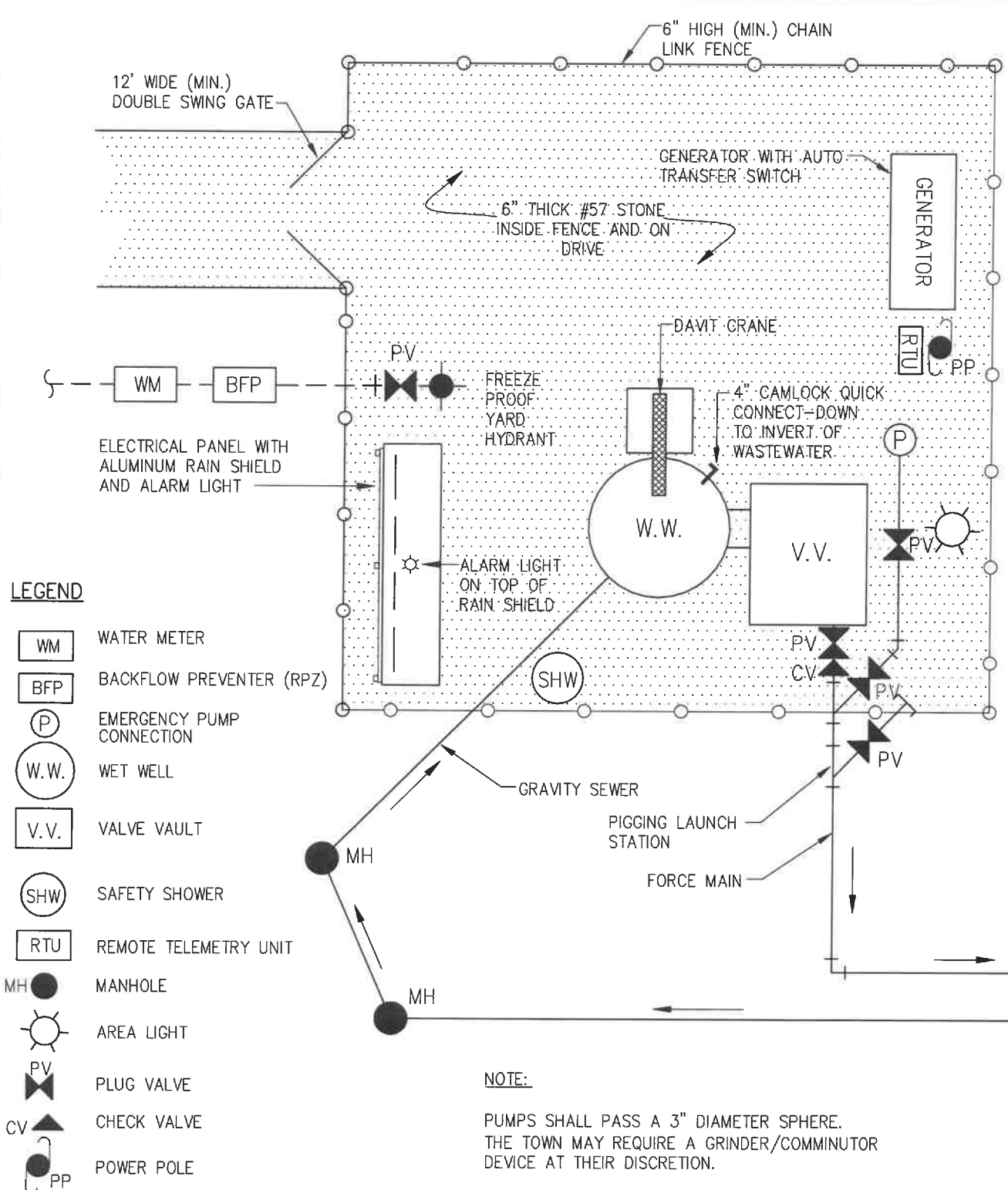
4" SEWER SERVICE CONNECTION
 WITH CLEAN OUT DETAIL
 (NEW INSTALLATION)

SCALE

DRAWING #

N.T.S.

S-4

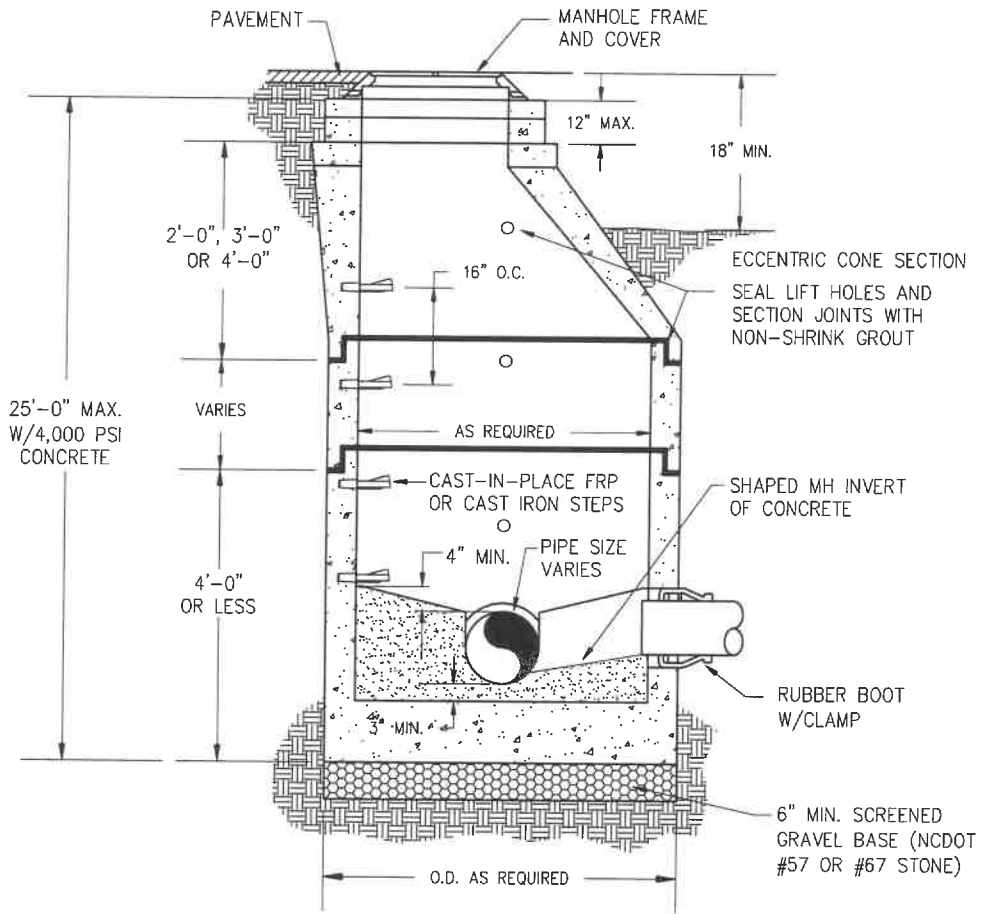


LEGEND

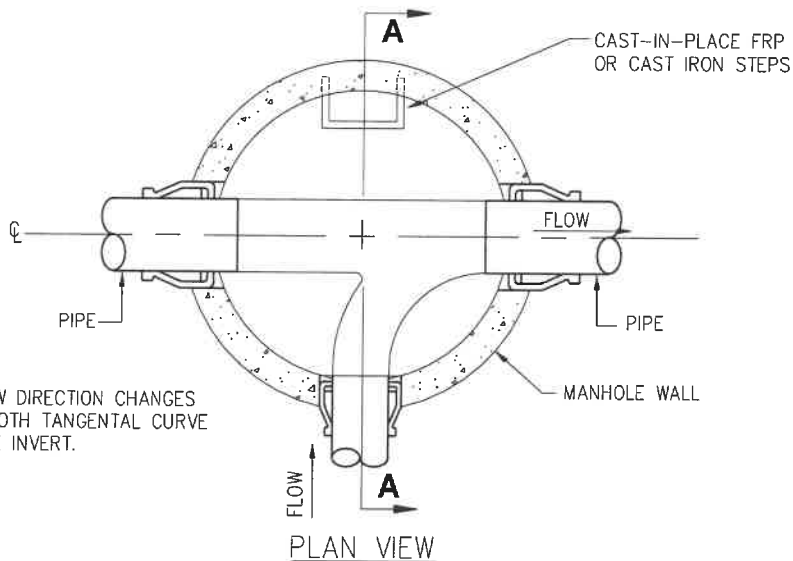
- WM WATER METER
- BFP BACKFLOW PREVENTER (RPZ)
- P EMERGENCY PUMP CONNECTION
- W.W. WET WELL
- V.V. VALVE VAULT
- SHW SAFETY SHOWER
- RTU REMOTE TELEMETRY UNIT
- MANHOLE
- AREA LIGHT
- PLUG VALVE
- CHECK VALVE
- POWER POLE

NOTE:
 PUMPS SHALL PASS A 3" DIAMETER SPHERE.
 THE TOWN MAY REQUIRE A GRINDER/COMMINUTOR
 DEVICE AT THEIR DISCRETION.

TOWN OF BUNN PUBLIC WORKS			SCALE	DRAWING #
GENERAL SITE PLAN SEWER PUMP STATION			N.T.S.	S-5
DATE	BY	DESCRIPTION		
REVISIONS				



ECCENTRIC CONE TOP MANHOLE SECTION A-A



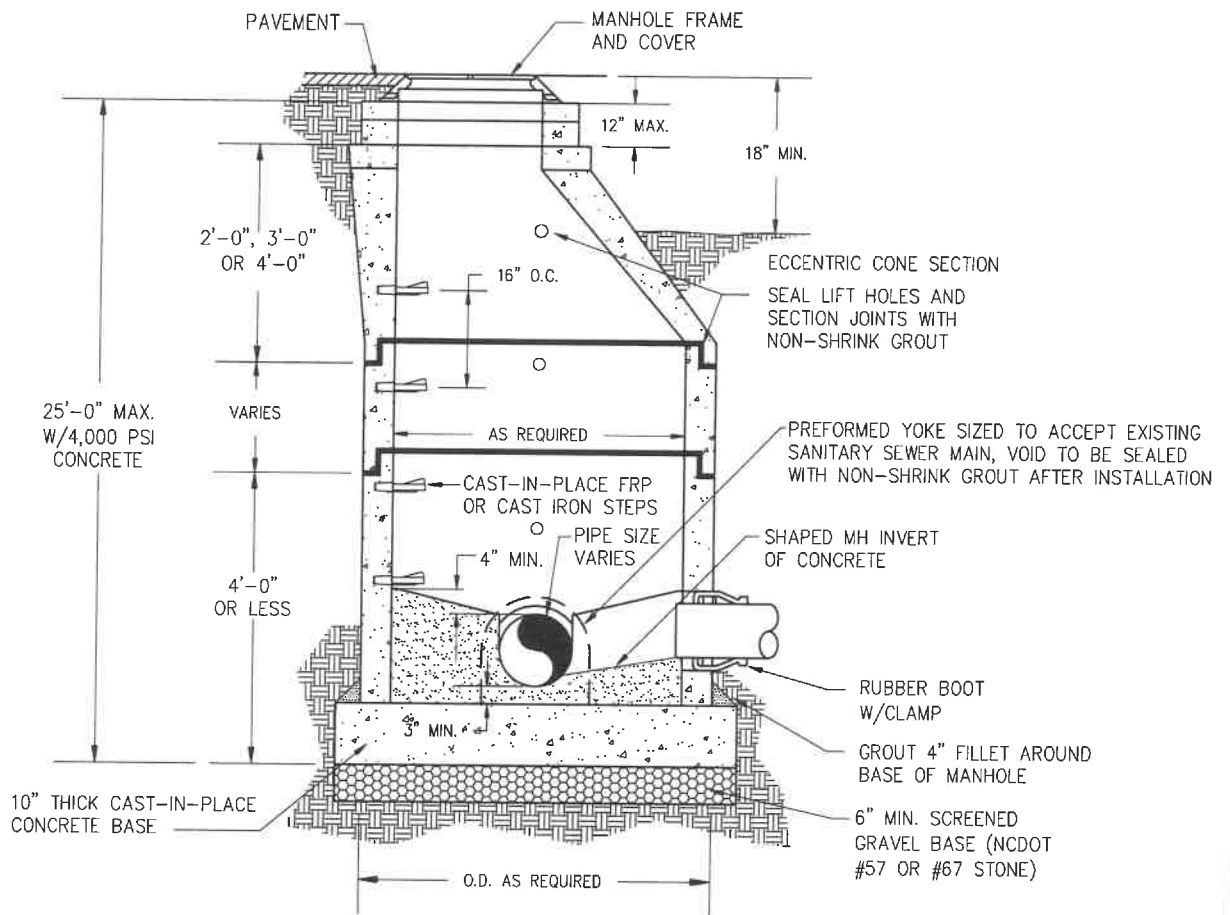
NOTE:
MAKE REQUIRED FLOW DIRECTION CHANGES
IN MANHOLE BY SMOOTH TANGENTIAL CURVE
OF SHAPED MANHOLE INVERT.

DATE	BY	DESCRIPTION
REVISIONS		

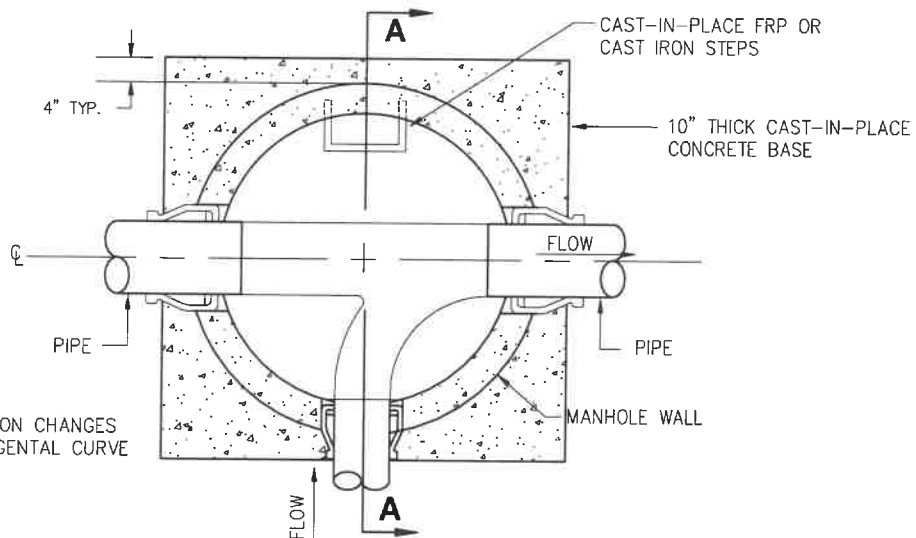
TOWN OF BUNN PUBLIC WORKS

PRECAST MANHOLE DETAIL

SCALE	DRAWING #
N.T.S.	S-6



ECCENTRIC CONE TOP MANHOLE
SECTION A-A



NOTE:
MAKE REQUIRED FLOW DIRECTION CHANGES
IN MANHOLE BY SMOOTH TANGENTIAL CURVE
OF SHAPED MANHOLE INVERT.

PLAN VIEW

TOWN OF BUNN PUBLIC WORKS

PRECAST MANHOLE DETAIL
BUILT OVER (DOG HOUSE)
EXISTING SANITARY SEWER

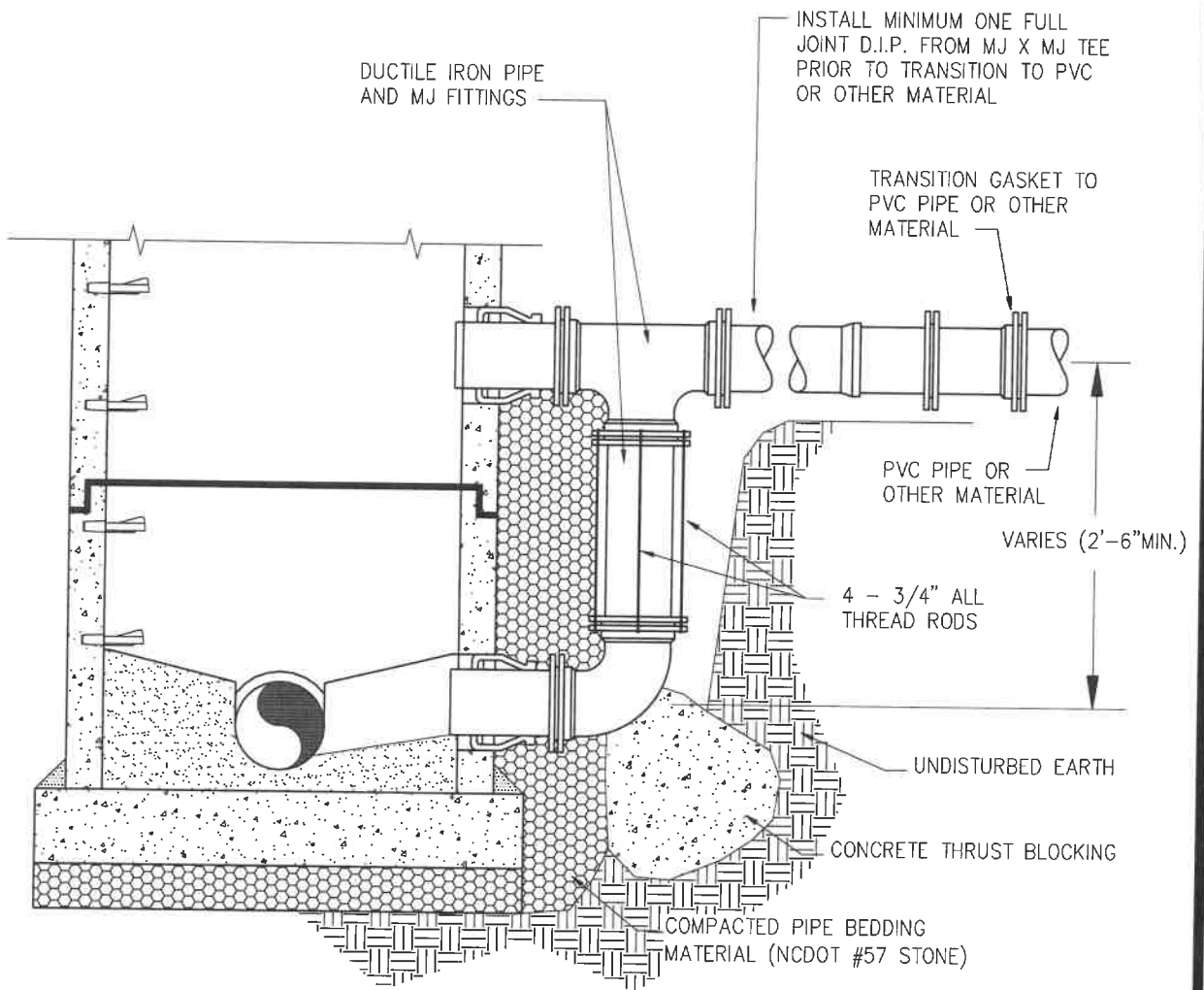
SCALE

DRAWING #

N.T.S.

S-7

DATE	BY	DESCRIPTION
		REVISIONS



NOTES:

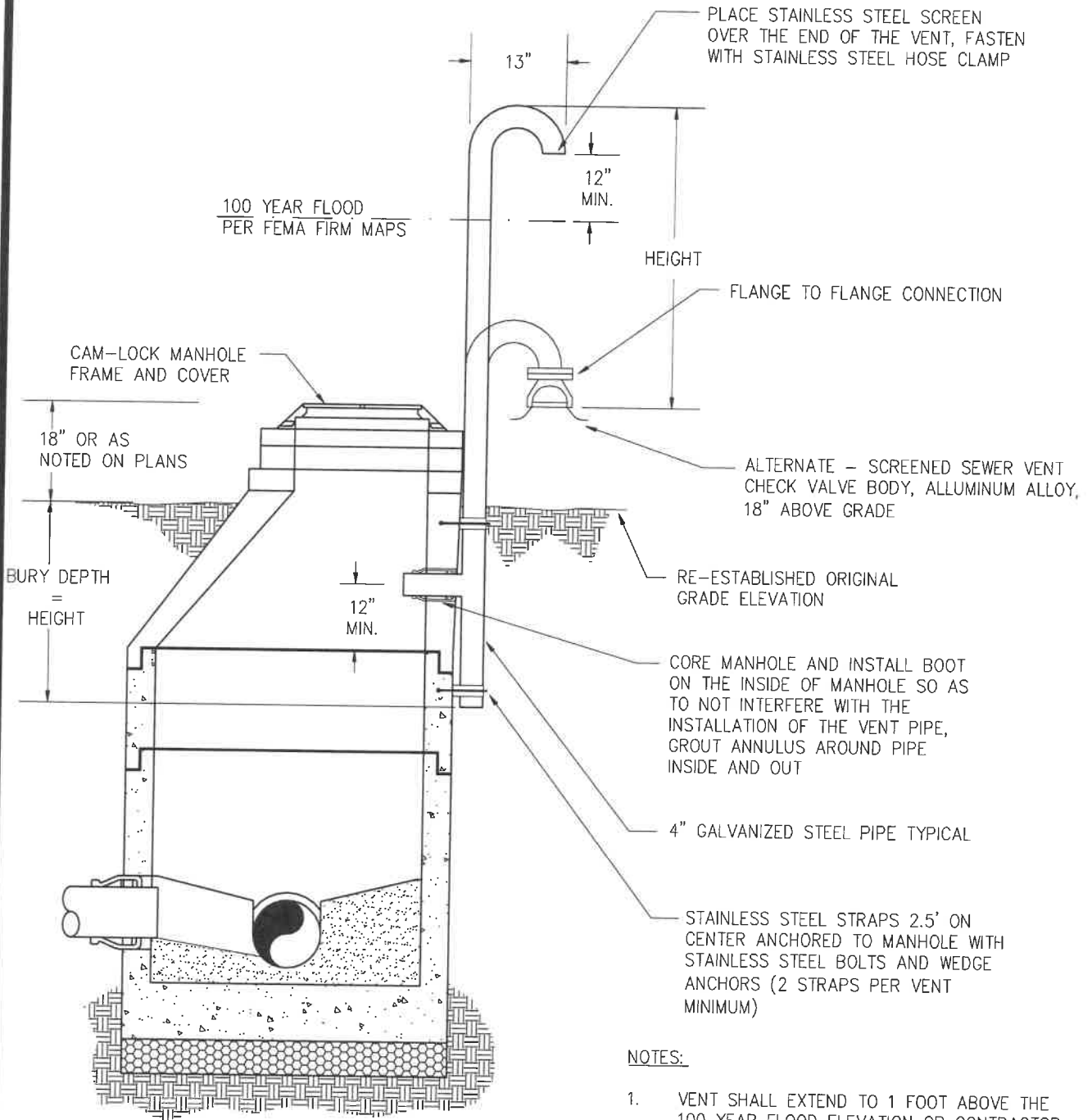
1. OUTSIDE DROP REQUIRED FOR DROPS 30" OR GREATER.
2. OUTSIDE DROPS ARE ALLOWED ON A CASE BY CASE BASIS PER BUNN PUD.

DATE	BY	DESCRIPTION

TOWN OF BUNN PUBLIC WORKS

PRECAST MANHOLE DETAIL
WITH OUTSIDE DROP
CONNECTION

SCALE	DRAWING #
N.T.S.	S-8



NOTES:

1. VENT SHALL EXTEND TO 1 FOOT ABOVE THE 100 YEAR FLOOD ELEVATION OR CONTRACTOR MAY INSTALL SCREENED SEWER VENT CHECK VALVE 18" ABOVE GRADE.
2. FLEXIBLE BOOT SHALL BE CONNECTED TO MANHOLE WITH STAINLESS STEEL EXPANSION RING. FLEXIBLE BOOT CONNECTORS SHALL CONFORM TO ASTM C-923 SPECIFICATION.

DATE	BY	DESCRIPTION
REVISIONS		

TOWN OF BUNN PUBLIC WORKS

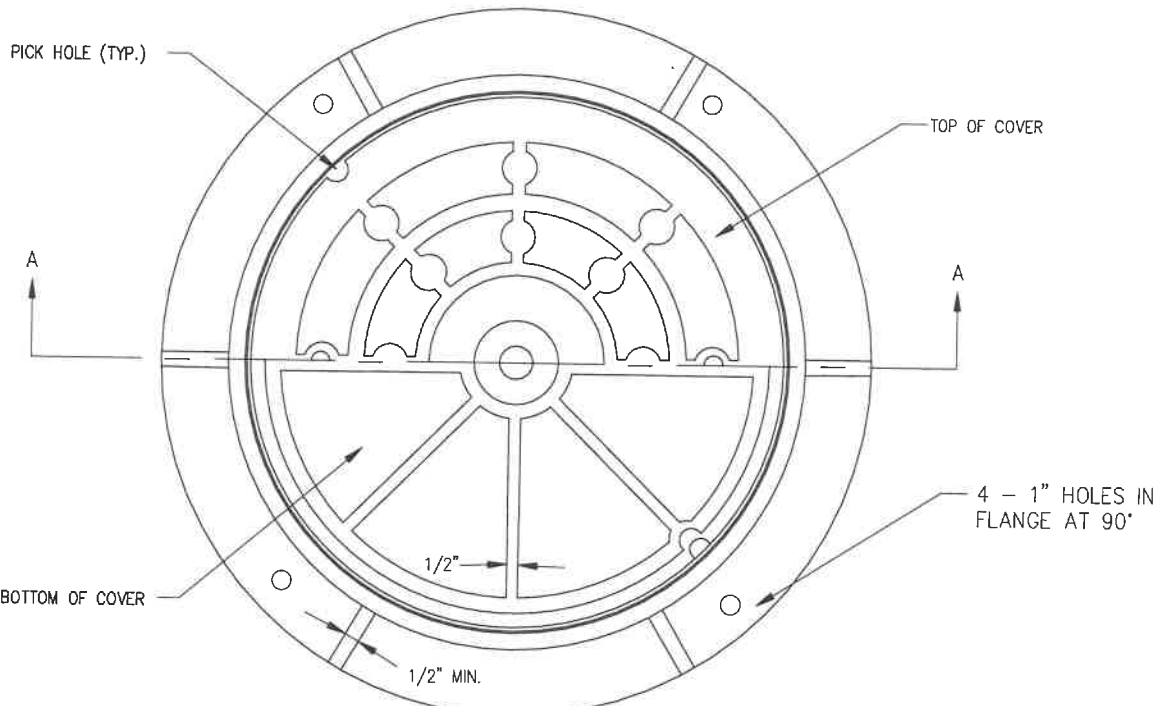
MANHOLE VENT DETAIL

SCALE

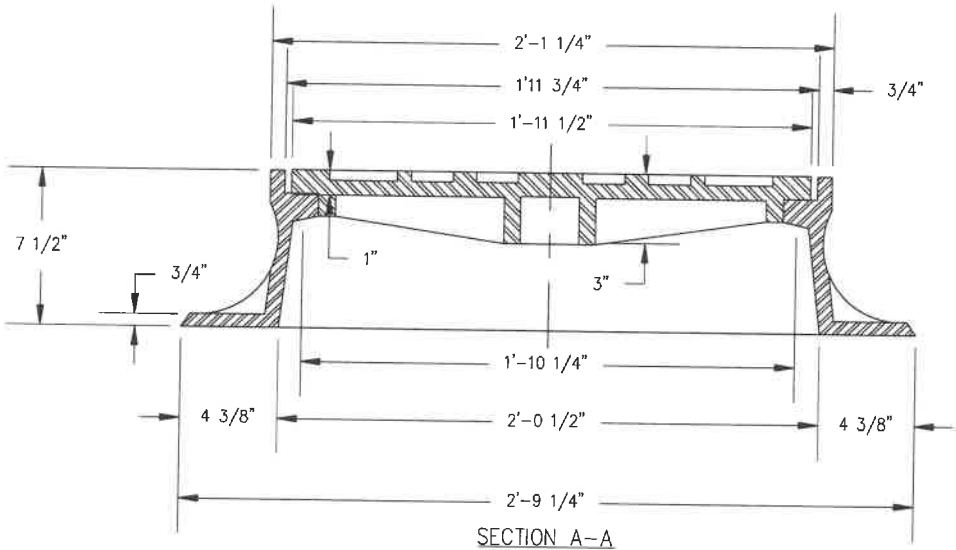
DRAWING #

N.T.S.

S-9



PLAN VIEW



SECTION A-A

NOTES:

1. COVERS TO READ: "SANITARY SEWER CONFINED SPACE PERMIT FOR ENTRY REQUIRED.
2. CASTINGS SHALL BE MANUFACTURED IN THE U.S.A.

DATE	BY	DESCRIPTION

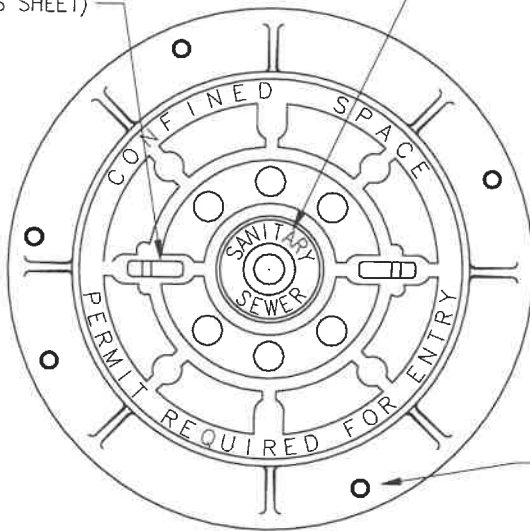
TOWN OF BUNN PUBLIC WORKS

MANHOLE FRAME AND COVER DETAIL

SCALE	DRAWING #
N.T.S.	S-10

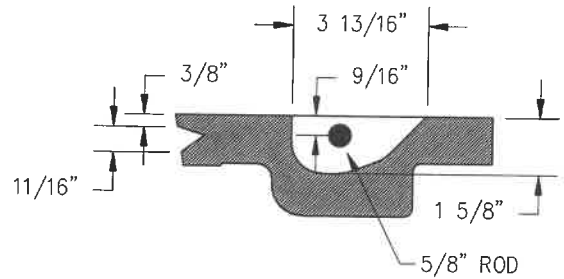
(2) PICKBARS (SEE
DETAIL THIS SHEET)

1" LETTERING

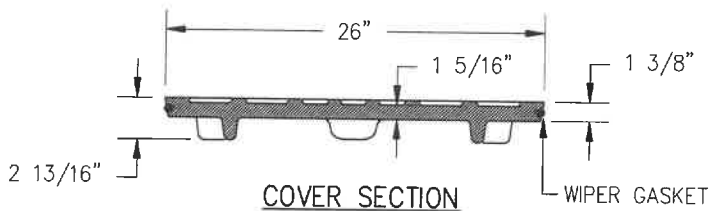


PLAN VIEW

(4) 1" HOLES ON 31" DIA. B.C.
EQUALLY SPACED 90° APART AND
(3) 1" DIA. (25mm) HOLES ON
31" DIA. B.C. EQUALLY SPACED
120° APART

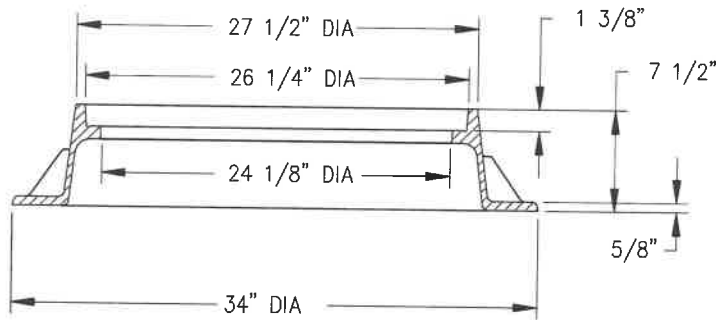


PICKBAR AND GASKET GROOVE DETAIL



COVER SECTION

WIPER GASKET



FRAME SECTION

NOTES:

1. MATERIAL: GRAY IRON CONFORMING TO ASTM A48 CL35B.
2. CASTINGS TO BE UNCOATED.
3. COVER TO MEET OR EXCEED AASHTO M-306 PROOF LOAD OF 40,000 LB.
4. ALL LETTERING TO BE CLEAN, CRISP AND CLEARLY LEGIBLE.
5. CASTINGS SHALL BE MANUFACTURED IN THE U.S.A.
6. CASTINGS TO BE MADE OF RECYCLED MATERIALS, 75% POST CONSUMER WASTE.
7. COVER TO READ: "SANITARY SEWER - CONFINED SPACE - PERMIT REQUIRED FOR ENTRY".

EST. WT.

COVER: 170 LBS.
FRAME: 175 LBS.
UNIT: 345 LBS

MATERIAL SPEC.

COVER: GRAY CAST IRON
ASTM A48 CL35B

FRAME: GRAY CAST IRON
ASTM A48 CL35B

DATE	BY	DESCRIPTION

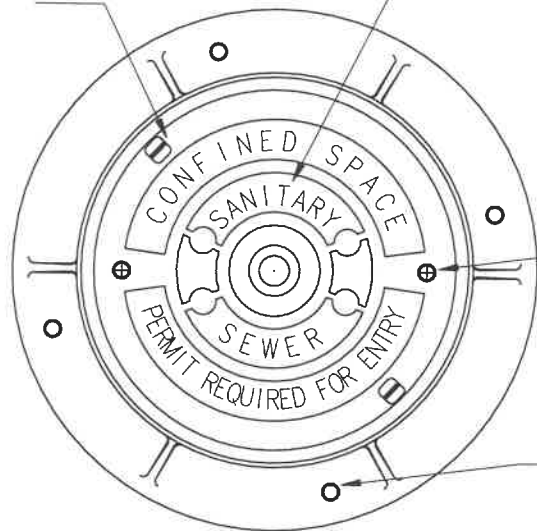
TOWN OF BUNN PUBLIC WORKS

WATERTIGHT MANHOLE FRAME
AND COVER DETAIL

SCALE	DRAWING #
N.T.S.	S-11

(2) NON-PENETRATING PICKBARS

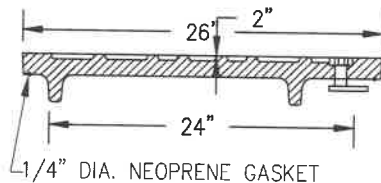
1 1/4" LETTERING



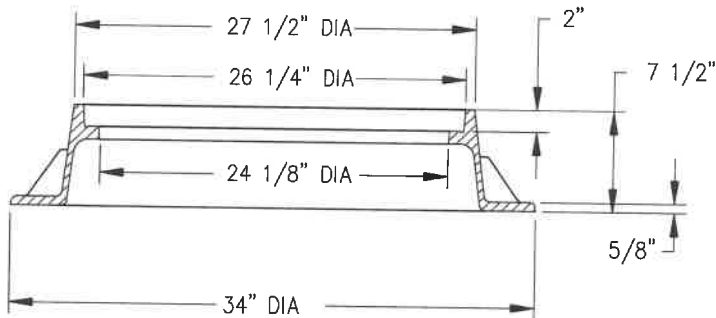
(2) CAM LOCKS

(4) 1" HOLES ON 31" DIA. B.C. EQUALLY SPACED 90° APART

PLAN VIEW



1/4" DIA. NEOPRENE GASKET
COVER SECTION



FRAME SECTION

NOTES:

1. COVER TO READ: "SANITARY SEWER - CONFINED SPACE - PERMIT REQUIRED FOR ENTRY".
2. CASTINGS SHALL BE MANUFACTURED IN THE U.S.A.

DATE	BY	DESCRIPTION
REVISIONS		

TOWN OF BUNN PUBLIC WORKS

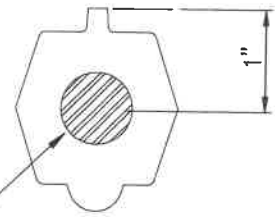
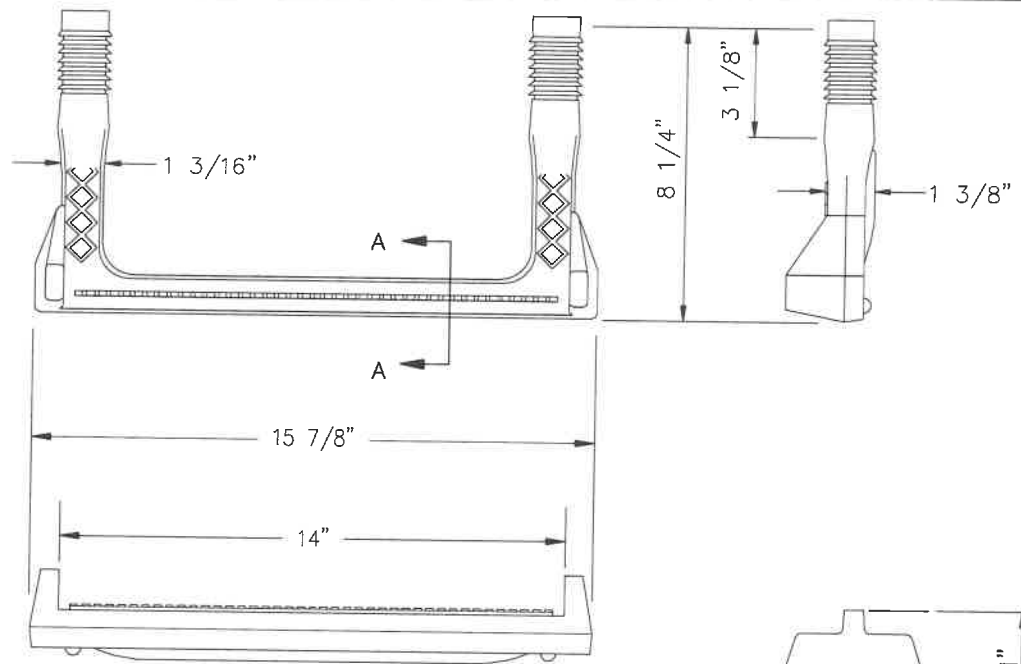
LOCKING MANHOLE FRAME
AND COVER DETAIL

SCALE

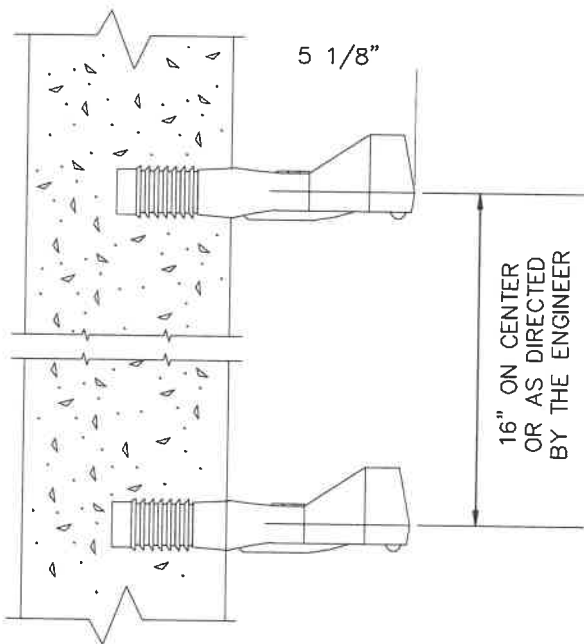
DRAWING #

N.T.S.

S-12



SECTION A-A



1/2" GRADE 60 STEEL REINFORCEMENT

NOTES:

1. COPOLYMER POLYPROPYLENE PLASTIC STEP SHALL BE PLACE 16" ON CENTERS IN ALL STRUCTURES 5' DEPTH OR GREATER. FIRST STEP SHALL BE PLACED 12" BELOW FRAME, AND BOTTOM STEP SHALL BE PLACED A MAXIMUM OF 16" ABOVE MANHOLE BASE.
2. STEPS SHALL BE INSTALLED BY MANUFACTURER AND SHALL BE ALIGNED OVER STRUCTURE INVERT OUT.
3. DIMENSIONS SHOWN ARE TO CONVEY THE DESIRED SIZE OF THE STEP. STEPS OF SIMILAR SIZE AND CONSTRUCTION MAY BE ACCEPTABLE PROVIDED MATERIAL SUBMITTAL IS APPROVED BY THE TOWN OF BUNN.
4. MATERIALS OF CONSTRUCTION AND METHOD OF INSTALLATION SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND ASTM C-478.

DATE	BY	DESCRIPTION

TOWN OF BUNN PUBLIC WORKS

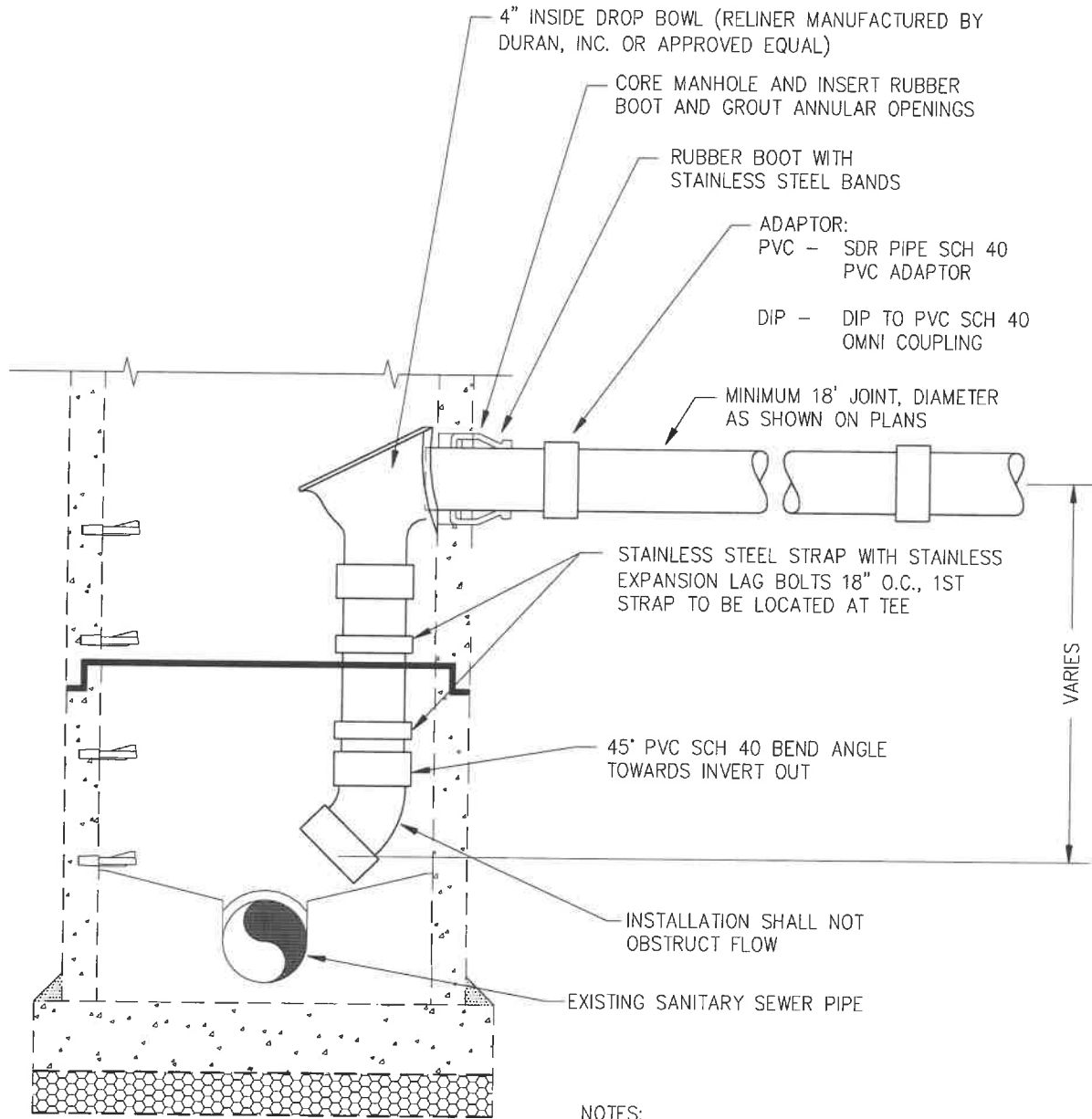
STRUCTURE STEP DETAIL

SCALE

DRAWING #

N.T.S.

S-13



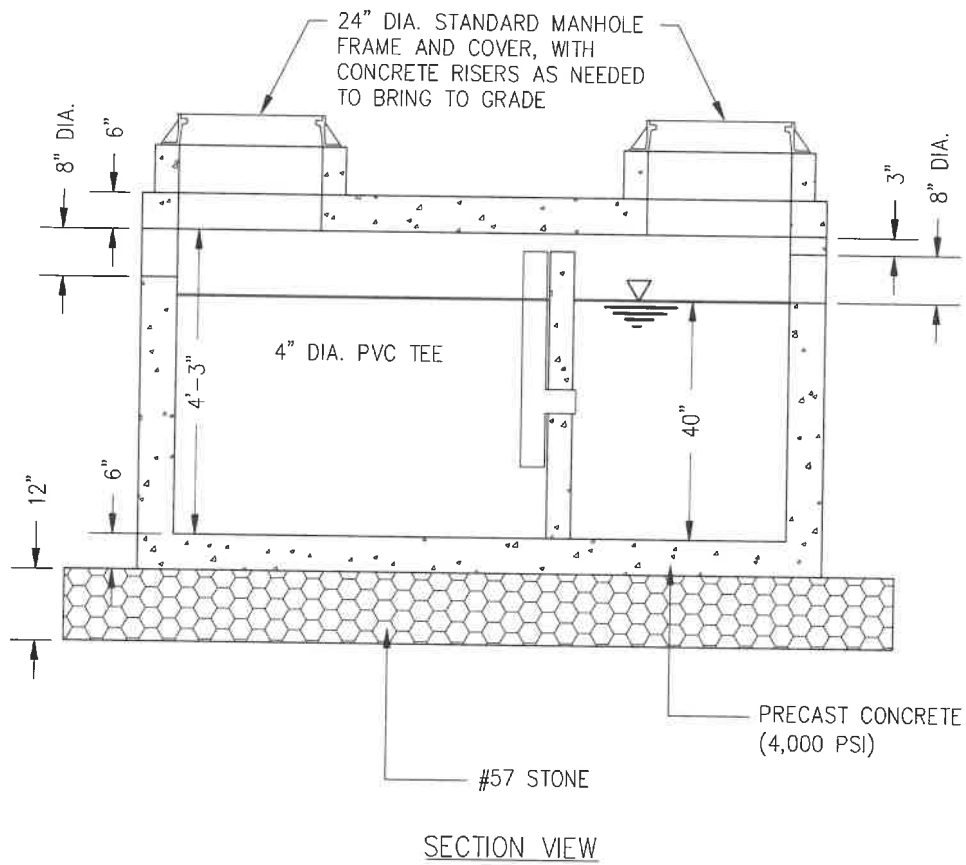
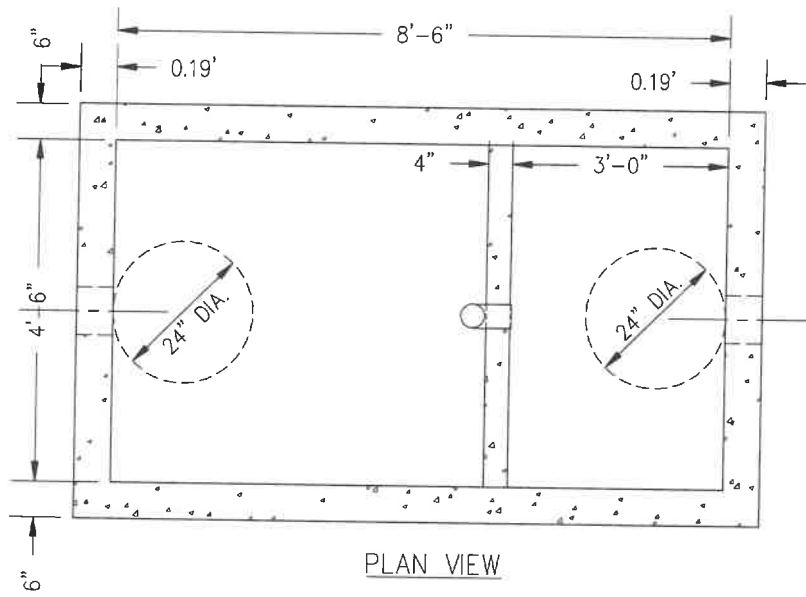
NOTES:

1. ALL SERVICE PIPE SHALL BE SCHEDULE 40 PVC.
2. ALL SERVICE ENTRANCES SHALL BE CORED AND BOOTED.
3. LIMIT NUMBER OF SERVICES INTO MANHOLES TO TWO(2) FOR 4 FOOT DIA. MANHOLES AND THREE(3) FOR 5 FOOT DIA. MANHOLES.
4. INSIDE DROP SHALL BE SAME MATERIAL AS SERVICE FOR ENTIRETY.
5. ONLY REQUIRED IF DROP IS OVER 4 FEET.

DATE	BY	DESCRIPTION
REVISIONS		

TOWN OF BUNN PUBLIC WORKS

4" SEWER SERVICE CONNECTION TO EXISTING OR NEW PRECAST MANHOLE	SCALE	DRAWING #
	N.T.S.	S-14



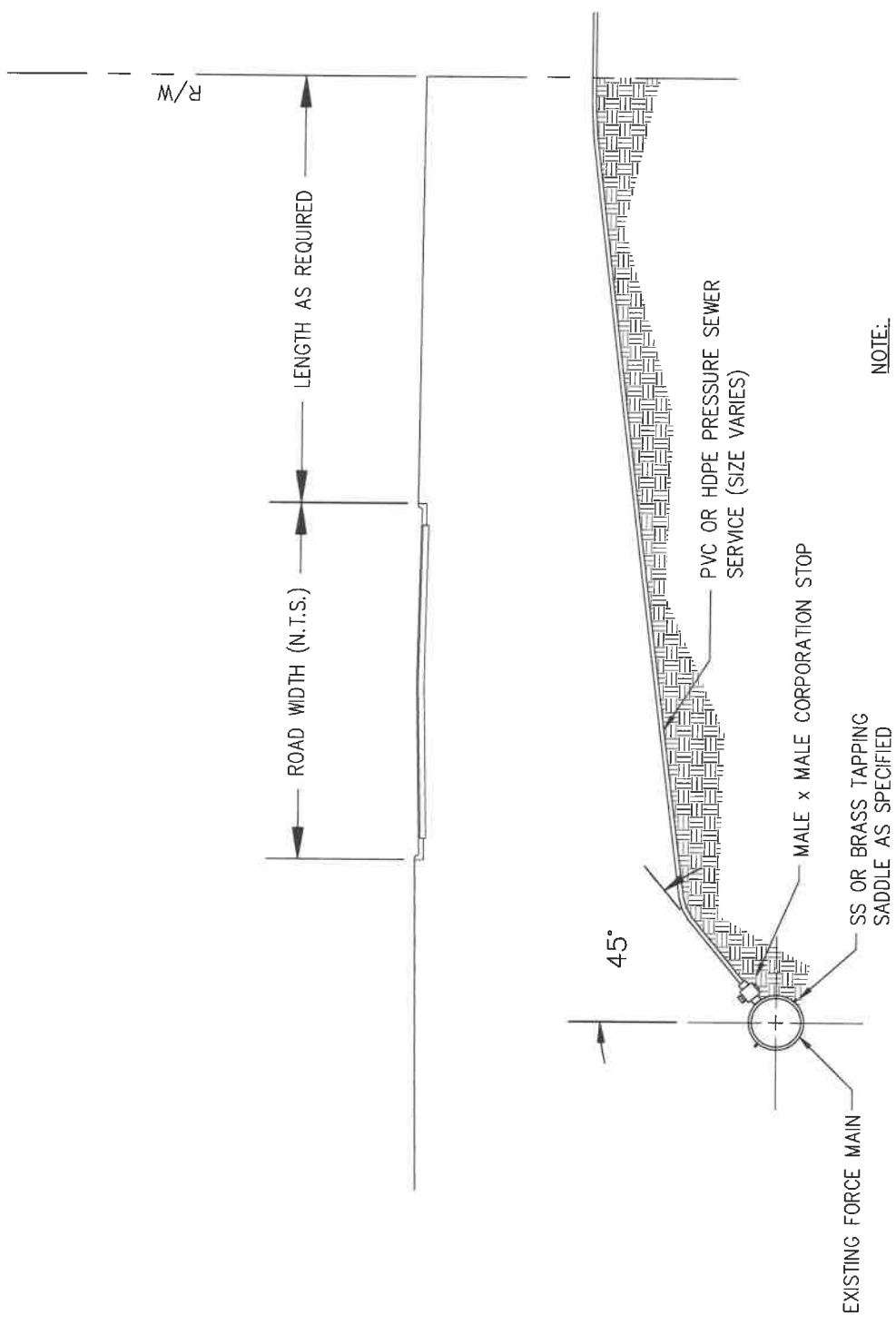
DATE	BY	DESCRIPTION

REVISIONS

TOWN OF BUNN PUBLIC WORKS

1,000 GALLON
GREASE TRAP DETAIL

SCALE	DRAWING #
N.T.S.	S-15

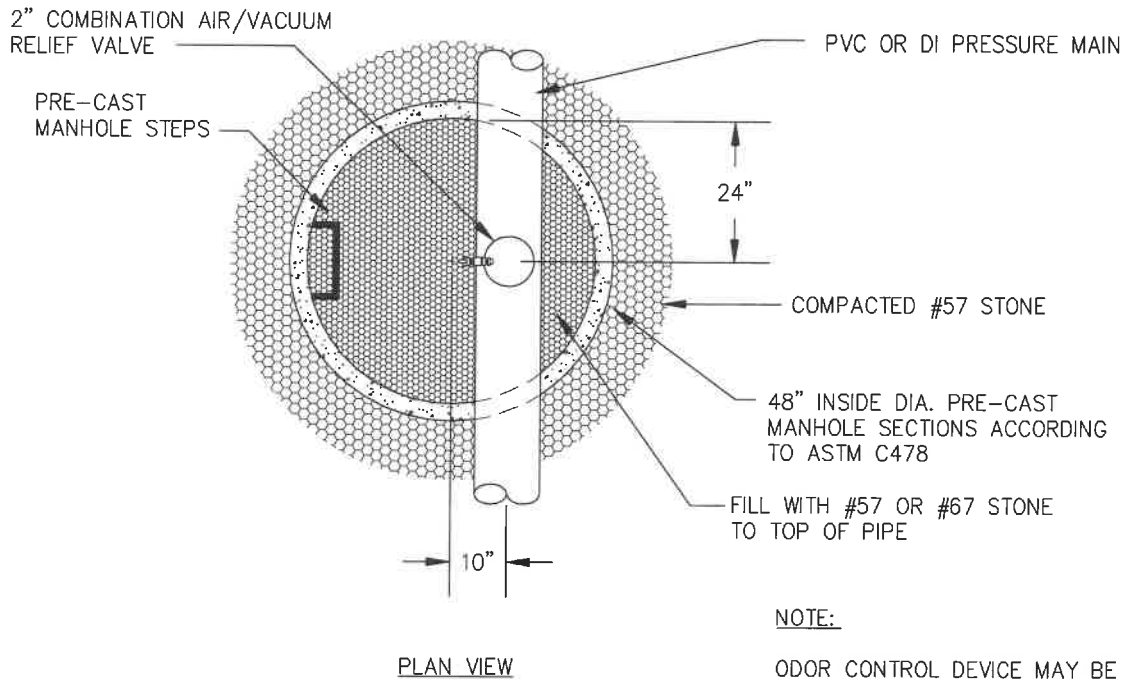
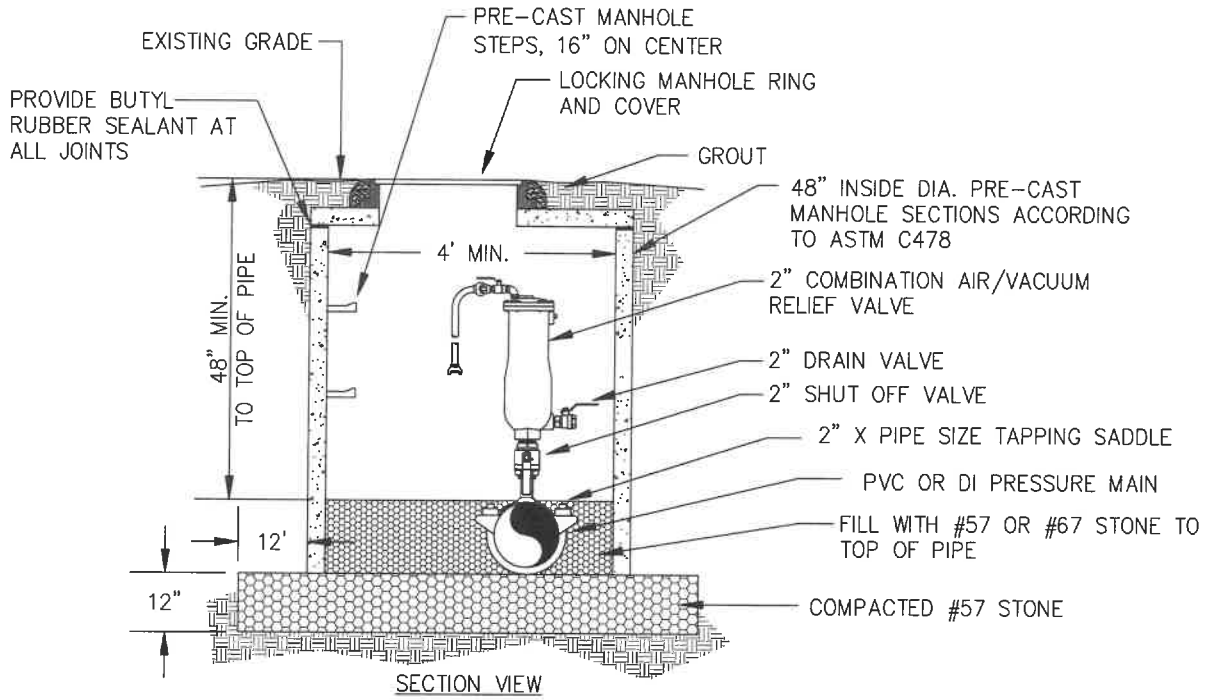


NOTE:

1. FOR PRESSURE SEWER SERVICE LATERALS 2" AND LARGER PROVIDE AWWA C-509 GATE VALVE AT THE EXISTING FORCE MAIN CONNECTION.
2. PRESSURE CONNECTIONS SHOWN WILL BE ALLOWED ONLY WITH PERMISSION OF THE TOWN OF BUNN.

DATE	BY	DESCRIPTION
REVISIONS		

TOWN OF BUNN PUBLIC WORKS		
PRESSURE SEWER SERVICE CONNECTION DETAIL (TIE TO EXISTING FORCE MAIN)	SCALE	DRAWING #
	N.T.S.	S-16



NOTE:

ODOR CONTROL DEVICE MAY BE REQUIRED BY THE TOWN IF LOCATED IN OCCUPIED AREAS.

DATE	BY	DESCRIPTION
REVISIONS		

TOWN OF BUNN PUBLIC WORKS		
COMBINATION AIR/ VACUUM RELIEF VALVE ASSEMBLY DETAIL	SCALE	DRAWING #
	N.T.S.	S-17

Sewer Use Ordinance

SEWER USE ORDINANCE
Town of Bunn, North Carolina
TABLE OF CONTENTS

	Page #
SECTION 1 - GENERAL PROVISIONS	
1.1 Purpose and Policy	SUO 2
1.2 Definitions and Abbreviations	SUO 2
SECTION 2 - GENERAL SEWER USE REQUIREMENTS	
2.1 Prohibited Discharge Standards	SUO 9
2.2 National Categorical Pretreatment Standards	SUO 11
2.3 Local Limits	SUO 11
2.4 State Requirements	SUO 11
2.5 Right of Revision	SUO 11
2.6 Dilution	SUO 12
2.7 Pretreatment of Wastewater	SUO 12
2.8 Accidental Discharge/Slug Control Plans	SUO 12
2.9 Hauled Wastewater	SUO 13
SECTION 3 - FEES	
3.1 Purpose	SUO 13
3.2 User Charges	SUO 13
3.3 Surcharges	SUO 14
3.4 Pretreatment Program Administration Charges	SUO 14
SECTION 4 - WASTEWATER DISCHARGE PERMIT APPLICATION AND ISSUANCE	
4.1 Wastewater Dischargers	SUO 15
4.2 Wastewater Permits	SUO 15
SECTION 5 - REPORTING REQUIREMENTS	
5.1 Baseline Monitoring Reports	SUO 21
5.2 Compliance Schedule Progress Reports	SUO 22
5.3 Reports on Compliance with Categorical Pretreatment Standard Deadline	SUO 22
5.4 Periodic Compliance Reports	SUO 23
5.5 Reports of Changed Conditions	SUO 23
5.6 Reports of Potential Problems	SUO 24
5.7 Reports from Unpermitted Users	SUO 24
5.8 Notice of Violation/Repeat Sampling and Reporting	SUO 24
5.9 Notification of the Discharge of Hazardous Waste	SUO 25
5.10 Analytical Requirements	SUO 25
5.11 Grab & Composite Sample Collection	SUO 25
5.12 Timing	SUO 25
5.13 Record Keeping	SUO 26
5.14 Electronic Reporting	SUO 26
SECTION 6 - COMPLIANCE MONITORING	
6.1 Monitoring Facilities	SUO 26
6.2 Inspection and Sampling	SUO 26
6.3 Search Warrants	SUO 26
SECTION 7 - CONFIDENTIAL INFORMATION	SUO 27
SECTION 8 - ENFORCEMENT	
8.1 Administrative Remedies	SUO 27
8.2 Civil Penalties	SUO 29
8.3 Other Available Remedies	SUO 29
8.4 Remedies Nonexclusive	SUO 30
SECTION 9 - ANNUAL PUBLICATION OF SIGNIFICANT NONCOMPLIANCE	SUO 30
SECTION 10 - AFFIRMATIVE DEFENSES TO DISCHARGE VIOLATIONS	
10.1 Upset	SUO 30
10.2 Prohibited Discharge Standards Defense	SUO 31
10.3 Bypass	SUO 31
SECTION 11 - SEVERABILITY	SUO 32
SECTION 12 - CONFLICT	SUO 32
SECTION 13 - EFFECTIVE DATE	SUO 32

SECTION 1 - GENERAL PROVISIONS

1.1 Purpose and Policy

This ordinance sets forth uniform requirements for direct and indirect contributors to the wastewater collection and treatment system for the **Town of Bunn**, hereafter referred to as the **Town**, and enables the Town to comply with all applicable State and Federal laws, including the Clean Water Act (33 United States Code §1251 *et seq.*) and the General Pretreatment Regulations (40 CFR, Part 403).

The objectives of this ordinance are:

- (a) To prevent the introduction of pollutants into the municipal wastewater system which will interfere with the operation of the system or contaminate the resulting sludge;
- (b) To prevent the introduction of pollutants into the municipal wastewater system which will pass through the system, inadequately treated, into any waters of the State or otherwise be incompatible with the system;
- (c) To promote the reuse and recycling of industrial wastewater and sludges from the municipal system;
- (d) To protect both municipal personnel who may be affected by sewage, sludge, and effluent in the course of their employment as well as protecting the general public;
- (e) To provide for equitable distribution of the cost of operation, maintenance, and improvement of the municipal wastewater system; and
- (f) To ensure that the municipality complies with its NPDES or Non-discharge Permit conditions, sludge use and disposal requirements, and any other Federal or State laws to which the municipal wastewater system is subject.

This ordinance provides for the regulation of direct and indirect contributors to the municipal wastewater system, through the issuance of permits to certain non-domestic users and through enforcement of general requirements for the other users, authorizes monitoring and enforcement activities, requires user reporting and provides for the setting of fees for the equitable distribution of costs resulting from the program established herein.

This ordinance shall apply to all users of the municipal wastewater system, as authorized by N.C.G.S. 160A-312 and/or 153A-275]. The Town shall designate an administrator of the POTW and pretreatment program, hereafter referred to as the Town. Except as otherwise provided herein, the Town shall administer, implement, and enforce the provisions of this ordinance. Any powers granted to or imposed upon the Town may be delegated by the Town to other Town personnel. By discharging wastewater into the municipal wastewater system, industrial users outside the Town limits agree to comply with the terms and conditions established in this Ordinance and any permits, enforcement actions, or orders issued hereunder.

1.2 Definitions and Abbreviations

- (a) Unless the context specifically indicates otherwise, the following terms and phrases, as used in this ordinance, shall have the meanings hereinafter designated:
 - (1) Act or "the Act." The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. §1251, *et seq.*
 - (2) Approval Authority. The Director of the Division of Water Quality of the North Carolina Department of Environmental Quality or his designee.
 - (3) Authorized Representative of the Industrial User.
 - (i) If the industrial user is a corporation, the authorized representative shall mean:
 - A) The president, secretary, or vice-president of the corporation in charge of a principal business function or any other person who performs similar policy or decision-making functions for the corporation, or

- B) the manager of one or more manufacturing, production, or operation facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment RECOMMENDATIONS and initiate and direct comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; can ensure that the necessary systems are established, or actions are taken to gather complete and accurate information for control mechanism requirements; and where the authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- (ii) If the industrial user is a partnership or sole proprietorship, an authorized representative shall mean a general partner or the proprietor, respectively.
 - (iii) If the industrial user is a Federal, State, or local government facility, an authorized representative shall mean a director or highest official appointed or designated to oversee the operation and performance of the activities of the government facility or their designee.
 - (iv) The individuals described in paragraphs i-iii above may designate another authorized representative if the authorization is in writing, the authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company, and the written authorization is submitted to the Town.
 - (v) If the designation of an authorized representative is no longer accurate because a different individual or position has responsibility for the overall operation of the facility or overall responsibility for environmental matters for the company, a new authorization satisfying the requirements of this section must be submitted to Town prior to or together with any reports to be signed by an authorized representative.
- (4) Biochemical Oxygen Demand (BOD). The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedures for five (5) days at 20° centigrade, usually expressed as a concentration (e.g., mg/l).
 - (5) Building Sewer. A sewer conveys wastewater from the premises of a user to the POTW.
 - (6) Bypass. The intentional diversion of waste streams from any portion of a user's treatment facility.
 - (7) Categorical Standards. National Categorical Pretreatment Standards or Pretreatment Standard.
 - (8) Director or Utilities or Public Works Director. The person designated by the Town to supervise the operation of the publicly owned treatment works and who is charged with certain duties and responsibilities by this ordinance or his duly authorized representative.
 - (9) Environmental Protection Agency, or EPA. The U.S. Environmental Protection Agency, or where appropriate, may also be used as a designation for the Administrator or another duly authorized official of said agency.
 - (10) Grab Sample. A sample which is taken from a waste stream on a one-time basis without regard to the flow in the waste stream and over a period of time not to exceed 15 minutes.

- (11) Holding Tank Waste. Any waste from holding tanks, including but not limited to such holding tanks as vessels, chemical toilets, campers, trailers, septic tanks, and vacuum-pump tank trucks.
- (12) Indirect Discharge or Discharge. The discharge or the introduction from any nondomestic source regulated under section 307(b), (c), or (d) of the Act (33 U.S.C. 1317) into the POTW (including holding tank waste discharged into the system).
- (13) Industrial User or User. Any person who is a source of the indirect discharge.
- (14) Interference. The inhibition or disruption of the POTW treatment processes, operations, or its sludge process, use, or disposal, which causes or contributes to a violation of any requirement of the POTW's NPDES or Non-discharge Permit or prevents sewage sludge use or disposal in compliance with specified applicable State and Federal statutes, regulations, or permits. The term includes the prevention of sewage sludge use or disposal by the POTW in accordance with section 405 of the Act (33 U.S.C. 1345) or any criteria, guidelines, or regulations developed pursuant to the Solid Waste Disposal Act (SWDA)(42 U.S.C. §6901, *et seq.*), the Clean Air Act, the Toxic Substances Control Act, the Marine Protection Research and Sanctuary Act (MPRSA) or more stringent state criteria (including those contained in any State sludge management plan prepared pursuant to Title IV of SWDA) applicable to the method of disposal or use employed by the POTW.
- (15) Medical Waste. Isolation wastes, infectious agents, human blood and blood products, pathological wastes, sharps, body parts, contaminated bedding, surgical wastes, potentially contaminated laboratory wastes, and dialysis wastes.
- (16) National Categorical Pretreatment Standard or Categorical Standard. Any regulation containing pollutant discharge limits promulgated by EPA in accordance with sections 307(b) and (c) of the Act (33 U.S.C. §1317), which applies to a specific category of industrial users, and which appears in 40 CFR Chapter 1, Subchapter N, Parts 405-471.
- (17) National Prohibitive Discharge Standard or Prohibitive Discharge Standard. Absolute prohibitions against the discharge of certain substances; these prohibitions appear in section 5-2077-1.1 of this ordinance and are developed under the authority of 307(b) of the Act and 40 CFR, section 403.5.
- (18) New Source.
- (i) Any building, structure, facility, or installation from which there may be a discharge of pollutants, the construction of which commenced after the publication of proposed categorical pretreatment standards under section 307(c) of the Act, which will be applicable to such source if such standards are thereafter promulgated in accordance with section 307(c), provided that:
- (A) the building, structure, facility, or installation is constructed at a site at which no other source is located; or
- (B) the building, structure, facility, or installation totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or
- (C) the production or wastewater-generating processes of the building, structure, facility, or installation are substantially independent of an existing source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the existing source, should be considered.

- (ii) Construction on a site at which an existing source is located results in a modification rather than a new source if the construction does not create a new building, structure, facility, or installation meeting the criteria of section (i)(B) or (C) above but otherwise alters, replaces, or adds to existing process or production equipment.
- (iii) For purposes of this definition, construction of a new source has commenced if the owner or operator has:
 - (A) Begun, or caused to begin, as part of a continuous on-site construction program:
 - 1. Any placement, assembly, or installation of facilities or equipment; or
 - 2. Significant site preparation work, including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or
 - (B) Entered into a binding contractual obligation to purchase facilities or equipment intended to be used in its operation within a reasonable time. Options to purchase or contracts that can be terminated or modified without substantial loss and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this definition.
- (19) Noncontact Cooling Water. Water used for cooling which does not come into direct contact with any raw material, intermediate product, a waste product, or finished product.
- (20) National Pollution Discharge Elimination System, or NPDES, Permit. A permit issued pursuant to section 402 of the Act (33 U.S.C. §1342) or pursuant to N.C.G.S. 143-215.1 by the State under delegation from EPA.
- (21) Non-discharge Permit. A disposal system permit issued by the State pursuant to N.C.G.S. 143-215.1.
- (22) Pass Through. A discharge that exits the POTW into waters of the State in quantities or concentrations which, alone or with discharges from other sources, causes a violation, including an increase in the magnitude or duration of a violation, of the POTW's NPDES or Non-discharge Permit, or a downstream water quality standard.
- (23) Person. Any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity, or any other legal entity, or their legal representatives, agents, or assigns. This definition includes all Federal, State, and local government entities.
- (24) pH. A measure of the acidity or alkalinity of a substance expressed as standard units and calculated as the logarithm (base 10) of the reciprocal of the concentration of hydrogen ions expressed in grams per liter of solution.
- (25) Phosphorus. The quantity of phosphorus which occur in Orthophosphates, Polyphosphates, and Organophosphates is usually produced through agricultural run off or via humans who consume plants or animals who digest plants, usually expressed as a concentration (e.g., mg/l).
- (26) Pollutant. Any "waste" as defined in N.C.G.S. 143-213(18) and dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, medical wastes, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste and certain

characteristics of wastewater (e.g., pH, temperature, TSS, turbidity, color, BOD, COD, toxicity, or odor).

- (27) Total Maximum Daily Load (TMDL) is a regulatory term in the U.S. Clean Water Act, describing a plan for restoring impaired waters that identifies the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards.
- (28) Total Nitrogen. Total nitrogen is the sum of the total Kjeldahl nitrogen (ammonia, organic and reduced nitrogen) and nitrate-nitrite. It can be derived by monitoring for organic nitrogen compounds, free-ammonia, and nitrate-nitrite individually and adding the components together.
- (29) Total Nitrogen Allocation (TN). The total nitrogen allocation is generally expressed utilizing a mass-based yearly limit, with is computed as follows:
- $$\text{TN (mg/L)} \times \text{flow (MGD)} \times 8.34 \times 365\text{-days}$$
- (30) Town. The Town Manager, Public Works Director, or other individual designated with the responsibility for the pretreatment program and enforcement of this Sewer Use Ordinance.
- (31) POTW Treatment Plant. That portion of the POTW is designed to provide treatment to wastewater, often referred to as WWTP or Wastewater Treatment Plant.
- (32) Pretreatment or Treatment. The reduction of the number of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollution into a POTW. The reduction or alteration can be obtained by physical, chemical, or biological processes, process changes, or other means, except by diluting the concentration of the pollutants unless allowed by an applicable pretreatment standard.
- (33) Pretreatment Program. The program for the control of pollutants introduced into the POTW from non-domestic sources which was developed by the Town in compliance with 40 CFR 403.8 and approved by the approval authority as authorized by N.C.G.S. 143-215.3(a) (14) in accordance with 40 CFR 403.11.
- (34) Pretreatment Requirements. Any substantive or procedural requirement related to pretreatment other than a pretreatment standard.
- (35) Pretreatment Standards. Prohibited discharge standards, categorical standards, and local limits.
- (36) Publicly Owned Treatment Works (POTW) or Municipal Wastewater System. Treatment works as defined by section 212 of the Act (33 U.S.C. §1292), which is owned in this instance by the Town. This definition includes any devices or systems used in the collection, storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes, and other conveyances only if they convey wastewater to the POTW treatment plant. For the purposes of this ordinance, "POTW" shall also include any sewers that convey wastewater to the POTW from persons outside the Town who are, by contract or agreement with the Town, or in any other way, users of the POTW of the Town.
- (37) Severe Property Damage. Substantial physical damage to property and damage to the user's treatment facilities which causes them to become an inoperable or substantial and permanent loss of natural resources, which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- (38) Significant Industrial User. Any industrial user of the wastewater disposal system:

- (i) has an average daily process wastewater flow of 25,000 gallons or more, or
 - (ii) contributes more than 5% of any design or treatment capacity (i.e., allowable pollutant load) of the wastewater treatment plant receiving the indirect discharge, or
 - (iii) is required to meet a National categorical pretreatment standard, or
 - (iv) is found by the Town, the Division of Water Resources, or the U.S. Environmental Protection Agency (EPA) to have the potential for impact, either singly or in combination with other contributing industrial users, on the wastewater treatment system, the quality of sludge, the system's effluent quality, or compliance with any pretreatment standards or requirements.
- (39) **Significant Noncompliance or Reportable Noncompliance.** A status of noncompliance is defined as follows:
- (i) Violations of wastewater discharge limits.
 - A. Chronic Violations. Sixty-six percent or more of the measurements exceed (by any magnitude) the same daily maximum limit or the same average limit in a six-month period.
 - B. Technical Review Criteria (TRC) violations. Thirty-three percent or more of the measurements equal or exceed the TRC times the limit (maximum or average) in a six-month period. There are two groups of TRCs:
For the conventional pollutants: BOD, TSS, fats, oil, and grease, TRC = 1.4. For all other pollutants, TRC = 1.2
 - C. Any other violation(s) of an effluent limit (average or daily maximum) that the control authority believes has caused, alone or in combination with other discharges, interference, or pass-through; or endanger the health of the sewage treatment plant personnel or the public.
 - D. Any discharge of a pollutant that has caused imminent endangerment to human health/welfare or the environment or has resulted in the POTW's exercise of its emergency authority to halt or prevent such a discharge.
 - (ii) Violations of compliance schedule milestones contained in a pretreatment permit or enforcement order for starting construction, completing construction, and attaining final compliance by 90 days or more after the scheduled date.
 - (iii) Failure to provide reports for compliance schedule, self-monitoring data, baseline monitoring reports, 90-day compliance reports, and periodic compliance reports within 30-days from the due date.
 - (iv) Failure to accurately report noncompliance.
 - (v) Any other violation or group of violations that the control authority considers being significant.
- (40) **Slug Load or Discharge.** Any discharge at a flow rate or concentration that has a reasonable potential to cause Interference or Pass-Through or in any other way violates the POTW's regulations, local limits, or Industrial User Permit conditions. This can include but is not limited to spills and other accidental discharges; discharges of a non-routine, episodic

nature; a non-customary batch discharge; or any other discharges that can cause a violation of the prohibited discharge standards as stated in this ordinance.

- (41) Standard Industrial Classification (SIC). Classification pursuant to the Standard Industrial Classification Manual issued by the Executive Office of the President, Office of Management and Budget, 1987.
- (42) Stormwater. Any flow occurring during or following any form of natural precipitation and resulting therefrom.
- (43) Suspended Solids. The total suspended matter that floats on the surface of, or is suspended in, water, wastewater, or other liquids and which is removable by laboratory filtering.
- (44) Upset. An exceptional incident in which there is unintentional and temporary noncompliance with categorical pretreatment standards because of factors beyond the reasonable control of the user. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- (45) Wastewater. The liquid and water-carried industrial or domestic wastes from dwellings, commercial buildings, industrial facilities, mobile sources, treatment facilities, and institutions, together with any groundwater, surface water, and storm water that may be present, whether treated or untreated, which are contributed into or permitted to enter the POTW.
- (46) Wastewater Permit. As set forth in this ordinance.
- (47) Waters of the State. All streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the State or any portion thereof.
 - (a) This ordinance is gender neutral, and the masculine gender shall include the feminine and vice-versa.
 - (b) Shall is mandatory; may is permissive or discretionary.
 - (c) The use of the singular shall be construed to include the plural, and the plural shall include the singular as indicated by the context of its use.
 - (d) The following abbreviations, when used in this ordinance, shall have the designated meanings:
 - (1) BOD Biochemical Oxygen Demand
 - (2) CFR Code of Federal Regulations
 - (3) COD Chemical Oxygen Demand
 - (4) EPA Environmental Protection Agency
 - (5) FOG Fat, Oil, and Grease
 - (6) gpd Gallons per day
 - (7) gpm Gallons per minute
 - (8) l Liter
 - (9) mg Milligrams
 - (10) mg/l Milligrams per liter
 - (11) mgd Million gallons per day
 - (12) N.C.G.S. North Carolina General Statutes
 - (13) NCDEQ North Carolina Department of Environment Quality
 - (14) NPDES National Pollution Discharge Elimination System
 - (15) O & M Operation and Maintenance

(16)	P	Phosphorus
(17)	POTW	Publicly Owned Treatment Works
(18)	RCRA	Resource Conservation and Recovery Act
(19)	SIC	Standard Industrial Classification
(20)	SWDA	Solid Waste Disposal Act
(21)	TN	Total Nitrogen
(22)	TSS	Total Suspended Solids
(23)	TKN	Total Kjeldahl Nitrogen
(24)	U.S.C	United States Code.
(25)	ug/l	micrograms per liter

SECTION 2 - GENERAL SEWER USE REQUIREMENTS

2.1 Prohibited Discharge Standards

- (a) General Prohibitions. No user shall contribute or cause to be contributed into the POTW, directly or indirectly, any pollutant or wastewater which causes interference or pass through. These general prohibitions apply to all users of a POTW, whether or not the user is a significant industrial user or subject to any National, State, or local pretreatment standards or requirements.
- (b) Specific Prohibitions. No user shall contribute or cause to be contributed into the POTW the following pollutants, substances, or wastewater:
 - (1) Pollutants that create a fire or explosive hazard in the POTW, including, but not limited to, waste streams with a closed cup flashpoint of less than 140°F (60°C) using the test methods specified in 40 CFR 261.21.
 - (2) Solid or viscous substances in amounts that will obstruct the flow in the POTW resulting in interference but in no case solids greater than one-half inch (1/2") in any dimension.
 - (3) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin, in amounts that will cause interference or pass through.
 - (4) Any wastewater having a pH less than 5.0 or more than 12.5 or wastewater having any other corrosive property capable of causing damage to the POTW or equipment.
 - (5) Any wastewater containing pollutants, including oxygen-demanding pollutants (BOD, etc.) in sufficient quantity (flow or concentration) either singly or by interaction with other pollutants, to cause interference with the POTW.
 - (6) Any wastewater having a temperature greater than 150° F (66° C) or which will inhibit biological activity in the POTW treatment plant resulting in Interference, but in no case wastewater which causes the temperature at the introduction into the treatment plant to exceed 104° F (40° C).
 - (7) Any pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems.
 - (8) Any trucked or hauled pollutants, except at discharge points designated by the Town in accordance with of this ordinance.
 - (9) Any noxious or malodorous liquids, gases, or solids or other wastewater which, either singly or by interaction with other wastes, are sufficient to create a public nuisance or hazard to life or are sufficient to prevent entry into the sewers for maintenance and repair.
 - (10) Any substance which may cause the POTW's effluent or any other product of the POTW such as residues, sludges, or scums, to be unsuitable for reclamation and reuse or to interfere with the reclamation process. In no case, shall a substance discharged to the POTW cause the POTW to be in noncompliance with sludge use or disposal regulations or permits issued under section

405 of the Act; the Solid Waste Disposal Act, the Clean Air Act, the Toxic Substances Control Act, or State criteria applicable to the sludge management method being used.

- (11) Any wastewater which imparts color which cannot be removed by the treatment process, including, but not limited to, dye wastes and vegetable tanning solutions, which consequently imparts sufficient color to the treatment plant's effluent to render the waters injurious to public health or secondary recreation or to aquatic life and wildlife or to adversely affect the palatability of fish or aesthetic quality or impair the receiving waters for any designated uses.
- (12) Any wastewater containing any radioactive wastes or isotopes except as specifically approved by the Town in compliance with applicable State or Federal regulations.
- (13) Storm water, surface water, ground water, artesian well water, roof runoff, subsurface drainage, swimming pool drainage, condensate, deionized water, noncontact cooling water, and unpolluted industrial wastewater, unless specifically authorized by the Town.
- (14) Fats, oils, or greases of animal or vegetable origin in concentrations greater than one hundred (100) mg/l.
- (15) Any sludges, screenings, or other residues from the pretreatment of industrial wastes.
- (16) Any medical wastes, except as specifically authorized by the Town in a wastewater discharge permit.
- (17) Any material containing ammonia, ammonia salts, or other chelating agents which will produce metallic complexes that interfere with the municipal wastewater system.
- (18) Any material that would be identified as hazardous waste according to 40 CFR Part 261 if not disposed of in a sewer except as may be specifically authorized by the Town.
- (19) Any wastewater causing the treatment plant effluent to violate State Water Quality Standards for toxic substances as described in 15A NCAC 2B .0200.
- (20) Wastewater causing, alone or in conjunction with other sources, the treatment plant's effluent to fail a toxicity test.
- (21) Recognizable portions of human or animal anatomy.
- (22) Any wastes containing detergents, surface active agents, or other substances which may cause excessive foaming in the municipal wastewater system.
- (23) At no time shall two successive readings on an explosion hazard meter, at the point of discharge into the system (or at any point in the system) be more than five percent (5%), nor any single reading over ten percent (10%) of the lower explosive limit (LEL) of the meter.

Pollutants, substances, wastewater, or other wastes prohibited by this section shall not be processed or stored in such a manner that they could be discharged to the municipal wastewater system. All floor drains located in process or materials storage areas must discharge to the industrial user's pretreatment facility before connecting with the system.

When the Town determines that a user(s) is contributing to the POTW, any of the above-enumerated substances in such amounts which may cause or contribute to the interference of POTW operation or pass through, the Town shall:

- 1) advise the user(s) of the potential impact of the contribution on the POTW in accordance with this Ordinance; and

- 2) take appropriate actions in accordance with section this Ordinance for such user to protect the POTW from interference or pass-through.

2.2 National Categorical Pretreatment Standards

Users subject to categorical pretreatment standards are required to comply with applicable standards as set out in 40 CFR Chapter 1, Subchapter N, Parts 405-471 and incorporated herein.

- (a) Where a categorical pretreatment standard is expressed only in terms of either the mass or the concentration of a pollutant in wastewater, the Town may impose equivalent concentration or mass limits in accordance with 40 CFR 403.6(c).
- (b) When wastewater subject to a categorical pretreatment standard is mixed with wastewater not regulated by the same standard, the Town shall impose an alternate limit using the combined waste stream formula in 40 CFR 403.6(e).
- (c) A user may obtain a variance from a categorical pretreatment standard if the user can prove, pursuant to the procedural and substantive provisions in 40 CFR 403.13, that factors relating to its discharge are fundamentally different from the factors considered by EPA when developing the categorical pretreatment standard.
- (d) A user may obtain a net gross adjustment to a categorical standard in accordance with 40 CFR 403.15.

2.3 Local Limits

An industrial waste survey is required prior to a User discharging wastewater containing in excess of the following average discharge limits.

BOD5	300	mg/l	
COD	500	mg/l	
TSS	300	mg/l	
Fats, Oil and Grease(FOG)	50	mg/l	
T.D.S	1000	mg/l	
Total Nitrogen	40	mg/l	
Total Phosphorus	8	mg/l	
NH ₃	25	mg/l	
Arsenic	0.003	mg/l	
Cadmium	0.003	mg/l	
Chromium	0.05	mg/l	(total chromium)
Copper	0.061	mg/l	
Cyanide	0.015	mg/l	
Lead	0.049	mg/l	
Mercury	0.0003	mg/l	
Nickel	0.021	mg/l	
Silver	0.005	mg/l	
Zinc	0.175	mg/l	

Industrial Waste Survey information will be used to develop user-specific local limits when necessary to ensure that the POTW's maximum allowable headworks loading is not exceeded for particular pollutants of concern. User-specific local limits for appropriate pollutants of concern shall be included in wastewater permits. The Town may impose mass-based limits in addition to, or in place of, concentration-based limits.

2.4 State Requirements

State requirements and limitations on discharges shall apply in any case where they are more stringent than Federal requirements and limitations or those in this ordinance.

2.5 Right of Revision

The Town of Bunn reserves the right to establish limitations and requirements which are more stringent than those required by either State or Federal regulation if deemed necessary to comply with the objectives presented in section 5-2079-1.1 of this ordinance or the general and specific prohibitions in section 5-2077-1.1 of this ordinance, as is allowed by 40 CFR 403.4.

2.6 Dilution

No user shall ever increase the use of process water or, in any way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in the National categorical pretreatment standards unless expressly authorized by an applicable pretreatment standard, or in any other pollutant-specific limitation developed by the Town of Bunn or State of North Carolina.

2.7 Pretreatment of Wastewater

(a) Pretreatment Facilities

Users shall provide wastewater treatment as necessary to comply with this ordinance and wastewater permits issued under section 5-2079-1.2 of this ordinance and shall achieve compliance with all National categorical pretreatment standards, local limits, and the prohibitions set out in section 5-2077-1.1 of this ordinance within the time limitations as specified by EPA, the State, or the Town, whichever is more stringent. Any facilities necessary for compliance shall be provided, operated, and maintained at the user's expense. Detailed plans, which shall include a process flow diagram and design calculations showing the pretreatment facilities and operating procedures, shall be submitted to the Town of Bunn for review and shall be approved by the Town as recommended by the Town's Engineer before construction of the facility. The review of such plans and operating procedures shall in no way relieve the user from the responsibility of modifying the facility as necessary to produce an effluent acceptable to the Town under the provisions of this ordinance. Any subsequent changes in the pretreatment facilities or method of operation shall be reported to and be approved by the Town prior to the user's initiation of the changes.

(b) Additional Pretreatment Measures

1. Whenever deemed necessary, the Town may require users to restrict their discharge during peak flow periods, designate that certain wastewater be discharged only into specific sewers, relocate and/or consolidate points of discharge, separate sewage waste streams from industrial waste streams, and such other conditions as may be necessary to protect the POTW and determine the user's compliance with the requirements of this ordinance.
2. The Town may require any person discharging into the POTW to install and maintain, on their property and at their expense, a suitable storage and flow-control facility to ensure equalization of flow. A wastewater discharge permit may be issued solely for flow equalization.
3. Grease, oil, and sand interceptors shall be provided when, in the opinion of the Town, they are necessary for the proper handling of wastewater containing excessive amounts of grease and oil or sand, except that such interceptors shall not be required for residential users. All interception units shall be of type and capacity approved by the Town and shall be so located to be easily accessible for cleaning and inspection. Such interceptors shall be inspected, cleaned, and regularly repaired, as needed, by the user at their expense.
4. Users with the potential to discharge flammable substances may be required to install and maintain an approved combustible gas detection meter.

2.8 Accidental Discharge/Slug Control Plans

- (a) The Town of Bunn shall evaluate whether each significant industrial user needs a plan or other action to control and prevent slug discharges and accidental discharges as defined in this Ordinance. All SIUs must evaluate within one year of being designated an SIU. The Town of Bunn may require any user to develop, submit for approval, and implement such a plan or other specific action. Alternatively, the Town of Bunn may develop such a plan for any user.
- (b) All SIUs are required to notify the POTW immediately of any changes at its facility affecting the potential for spills and other accidental discharge, discharge of a non-routine, episodic nature, a non-customary batch discharge, or a slug load. Also, see Sections 5-2080-1.5 and 5-2080-1.6.
- (c) An accidental discharge/slug control plan shall address, at a minimum, the following:
 - (1) Description of discharge practices, including non-routine batch discharges;
 - (2) Description of stored chemicals;
 - (3) Procedures for immediately notifying the Town of any accidental or slug discharge, as required by section 5-2080-1.6 of this ordinance; and
 - (4) Procedures to prevent adverse impact from any accidental or slug discharge. Such procedures include, but are not limited to, inspection and maintenance of storage areas, handling, and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, the building of containment structures or equipment, measures for containing toxic organic pollutants, including solvents, and/or measures and equipment for emergency response.

2.9 Hauled Wastewater

- (a) Septic tank waste may be introduced into the POTW only at locations designated by the Town and at such times as are established by the Town. Such waste shall not violate section 2 of this ordinance or any other requirements established by the Town. The Town may require septic tank waste haulers to obtain wastewater discharge permits.
- (b) The Town shall require haulers of industrial waste to obtain wastewater discharge permits. The Town may require generators of hauled industrial waste to obtain wastewater discharge permits. The Town also may prohibit the disposal of hauled industrial waste. The discharge of hauled industrial waste is subject to all other requirements of this ordinance.
- (c) Industrial waste haulers may discharge loads only at locations designated by the Town. No load may be discharged without the prior consent of the Town. The Town may collect samples of each hauled load to ensure compliance with applicable standards. The Town may require the industrial waste hauler to provide a waste analysis of any load prior to discharge.
- (d) Industrial waste haulers must provide a waste-tracking form for every load. This form shall include, at a minimum, the name and address of the industrial waste hauler, permit number, truck identification, names and addresses of sources of waste, and volume and characteristics of the waste. The form shall identify the type of industry, known or suspected waste constituents, and whether any wastes are RCRA hazardous wastes.

SECTION 3 – FEES

3.1 Purpose

It is the purpose of this chapter to provide for the recovery of costs from users of the wastewater disposal system of the Town for the implementation of the program established herein. The applicable charges or fees shall be set forth in a schedule of sewer use charges and fees by the Town and approved by the Town Council. A copy of these charges and fees will be made available from the Town.

3.2 User Charges

A user charge shall be levied on all users, including, but not limited to, persons, firms, corporations, or governmental entities that discharge, cause or permit the discharge of sewage into the POTW.

- (a) The user charge shall reflect, at least, the cost of debt service, operation, and maintenance (including replacement) of the POTW.
- (b) Each user shall pay its proportionate cost based on the flow volume.
- (c) The Town Manager shall review the sewage contributions of users annually, the total costs of debt service, operation, and maintenance of the POTW, and will make recommendations to the Town Council for adjustments in the schedule of charges and fees as necessary.
- (d) Charges for flow to the POTW not directly attributable to the users shall be distributed among all users of the POTW based upon the volume of flow of the users.

3.3 Surcharges:

The amount of the surcharges will be based upon the volume of flow and the character and concentration of the constituents of the wastewater:

- (a) The volume of flow used in determining the total discharge of wastewater for payment of user charges and surcharges shall be based on the following:
 - (1) Metered water consumption as shown in the records of meter readings maintained by the Town; or
 - (2) If required by the Town of Bunn or at the individual dischargers option, other flow monitoring devices which measure the actual volume of wastewater discharged to the sewer. Such devices shall be accessible and safely located, and the measuring system shall be installed in accordance with plans approved by the Town of Bunn. The metering system shall be installed and maintained at the user's expense according to arrangements that may be made with the Town.
 - (3) Where any user procures all or part of his water supply from sources other than the Town, the user shall install and maintain at his own expense a flow measuring device of a type approved by the Town of Bunn. The said flow measuring device shall be available for inspection and reading at all times by the Town of Bunn utility staff or designee.
- (b) The character and concentration of the wastewater constituents used in determining surcharges shall be determined by samples collected and analyzed by the Town. Samples shall be collected in such a manner as to be representative of the actual discharge and shall be analyzed using procedures set forth in 40 CFR Part 136.
- (c) The determination of the character and concentration of the constituents of the wastewater discharge by the Town or its duly appointed representatives shall be binding as a basis for charges.

3.4 Pretreatment Program Administration Charges

The schedule of charges and fees adopted by the Town of Bunn may include charges and fees for:

- (a) reimbursement of costs of setting up and operating the Pretreatment Program;
- (b) monitoring, inspections, and surveillance procedures;
- (c) reviewing slug control plans, including accidental and/or slug load discharge procedures and construction plans and specifications;

- (d) permitting;
- (e) other fees as the Town of Bunn may deem necessary to carry out the requirements of the Pretreatment Program.

SECTION 4 - WASTEWATER DISCHARGE PERMIT APPLICATION AND ISSUANCE

4.1 Wastewater Dischargers

It shall be unlawful for any person to connect or discharge to the POTW without first obtaining the permission of the Town. When requested by the Town, a user must submit information on the nature and characteristics of its wastewater within thirty (30) days of the request. The Town is authorized to prepare a form for this purpose and may periodically require users to update this information.

4.2 Wastewater Permits

All significant industrial users shall obtain a significant industrial user permit prior to the commencement of discharge to the POTW. Existing industrial users who are determined by the Town to be significant industrial users shall obtain a significant industrial user permit within 180-days of receiving notification of the Town's determination. Industrial users who do not fit the significant industrial user criteria may at the discretion of the Town, be required to obtain a wastewater discharge permit for non-significant industrial users.

(a) Significant Industrial User Determination:

All persons proposing to discharge non-domestic wastewater or proposing to change the volume or characteristics of an existing discharge of non-domestic wastewater shall request from the Town a significant industrial user determination. If the Town determines or suspects that the proposed discharge fits the significant industrial user criteria, he will require that a significant industrial user permit application be filed.

(b) Significant Industrial User Permit Application:

Users required to obtain a significant industrial user permit shall complete and file with the Town an application in the form prescribed by the Town and accompanied by an application fee in the amount prescribed in the schedule of charges and fees. Significant industrial users shall apply for a significant industrial user permit within 90-days after notification of the Town's determination in this Ordinance above. In support of the application, the user shall submit, in units and terms appropriate for evaluation, the following information:

- (1) Name, address, and location (if different from the address);
- (2) Standard Industrial Classification (SIC) codes for pretreatment, the industry as a whole, and any processes for which categorical pretreatment standards have been promulgated;
- (3) Analytical data on wastewater constituents and characteristics, including but not limited to those mentioned in this Ordinance of this ordinance, any of the priority pollutants (section 307(a) of the Act) which the applicant knows or suspects are present in the discharge as determined by a reliable analytical laboratory, and any other pollutant of concern to the POTW; sampling and analysis shall be performed in accordance with procedures established by the EPA pursuant to section 304(g) of the Act and contained in 40 CFR, Part 136, as amended and as required in this Ordinance;
- (4) Time and duration of the indirect discharge;

- (5) Average daily and 30-minute peak wastewater flow rates, including daily, monthly and seasonal variations, if any;
- (6) Site plans, floor plans, mechanical and plumbing plans, and details to show all sewers, floor drains, sewer connections, the direction of flow, and appurtenances by the size, location, and elevation;
- (7) Description of activities, facilities, and plant processes on the premises, including all materials which are or could be accidentally or intentionally discharged;
- (8) Where known, the nature and concentration of any pollutants in the discharge which are limited by any Town, State, or Federal Pretreatment Standards, and a statement regarding whether or not the pretreatment standards are being met on a consistent basis and if not, whether additional operation and maintenance (O&M) and/or additional pretreatment is required for the user to meet applicable pretreatment standards;
- (9) If additional pretreatment and/or O&M will be required to meet the pretreatment standards, the shortest schedule by which the user will provide such additional pretreatment. The completion date in this schedule shall not be longer than the compliance date established for the applicable pretreatment standard. The following conditions apply to this schedule:
 - (i) The schedule shall contain progress increments in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the user to meet the applicable pretreatment standards. No increment in the schedule shall exceed nine (9) months.
 - (ii) No later than 14 days following each date in the schedule and the final date for compliance, the user shall submit a progress report to the Town, including, at a minimum, whether or not it complied with the increment of progress, the reason for any delay, and if appropriate, the steps being taken by the user to return to the established schedule. In no event shall more than nine (9) months elapse between such progress reports to the Town.
- (10) Each product produced by type, amount, process or processes and rate of production;
- (11) Type and amount of raw materials processed (average and maximum per day);
- (12) Number and type of employees, and hours of operation of the plant and proposed or actual hours of operation of the pretreatment system;
- (13) If subject to a categorical standard, a baseline monitoring report in accordance with 40 CFR 403.12(b) and 15A NCAC 2H .0908(a), as outlined in this ordinance.
- (14) Any other information as may be deemed by the Town to be necessary to evaluate the permit application.

(c) Application Signatories and Certification

All wastewater discharge permit applications and user reports must be signed by the current authorized representative of the user on file with the Town of Bunn as defined in this Ordinance and contain the following certification statement:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate,

and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

(d) Application Review and Evaluation

The Town will evaluate the data furnished by the user and may require additional information.

- (1) The Town of Bunn is authorized to accept applications for the Town and shall refer all applications to the POTW staff and the Town’s Engineer for review and evaluation.
- (2) Within 30-days of receipt, the Town shall acknowledge and accept the complete application; or if not complete, shall return the application to the applicant with a statement of what additional information is required.

(e) Tentative Determination and Draft Permit

- (1) The POTW staff and Town’s Engineer shall conduct a review of the application and an on-site inspection of the significant industrial user, including any pretreatment facilities, and shall prepare a written evaluation and tentative determination to issue or deny the significant industrial user permit.
- (2) If the staff's and/or Town’s Engineer’s tentative determination in Paragraph (1) above is to issue the permit, the following additional determinations shall be made in writing:
 - (i) proposed discharge limitations for those pollutants proposed to be limited;
 - (ii) a proposed schedule of compliance, including interim dates and requirements, for meeting the proposed limitations; and
 - (iii) a brief description of any other proposed special conditions which will have a significant impact upon the discharge described in the application.
- (3) The staff shall organize the determinations made pursuant to Paragraphs (1) and (2) above and the general permit conditions of the Town into a significant industrial user permit.

(f) Permit Synopsis

A fact sheet providing a brief synopsis of the application shall be prepared by the POTW staff for submission to the applicant and the approval authority and shall be made available to the public upon request. The contents of such fact sheets shall include at least the following information:

- (1) a sketch and detailed description of the industrial facilities and pretreatment facilities, including the location of all points of discharge to the POTW and all established compliance monitoring points.
- (2) a quantitative description of the discharge described in the application, which includes at least the following:
 - (i) the rate or frequency of the proposed discharge; if the discharge is continuous, the average daily flow;
 - (ii) the actual average daily discharge in pounds per day of any limited pollutant and any pollutant identified in the application as known or suspected present; and,

- (iii) the basis for the pretreatment limitations, including the documentation of any calculations in applying categorical pretreatment standards.

(g) Final Action on Significant Industrial User Permit Applications

- (1) The Town of Bunn shall take final action on all applications not later than 90 days following receipt of a complete application.
- (2) The Town is authorized to:
 - (i) issue a significant industrial user permit containing such conditions as are necessary to effectuate the purposes of this ordinance and N.C.G.S. 143-215.1;
 - (ii) issue a significant industrial user permit containing time schedules for achieving compliance with applicable pretreatment standards and requirements;
 - (iii) modify any permit upon not less than 60-days' notice and pursuant to section 5-2079-1.2(i) of this ordinance;
 - (iv) revoke any permit pursuant to this ordinance;
 - (v) suspend a permit pursuant to this Ordinance;
 - (vi) deny a permit application when in the opinion of the Town of Bunn, such discharge may cause or contribute to pass-through or interference of the wastewater treatment plant or, where necessary, to effectuate the purposes of G.S. 143-215.1.

(h) Hearings: The Town of Bunn may conduct hearings in accordance with its regular hearing procedure.

- (1) Initial Adjudicatory Hearing. An applicant whose permit is denied or is granted subject to conditions he deems unacceptable, a permittee/user assessed a civil penalty under this Ordinance, or one issued an administrative order under this Ordinance shall have the right to an adjudicatory hearing before a hearing officer designated by the Town upon making written demand, identifying the specific issues to be contested, to the Town within 30-days following receipt of the significant industrial user permit, civil penalty assessment, or administrative order. Unless such written demand is made within the time specified herein, the action shall be final and binding. The Town Manager or designee shall make a final decision on the contested permit, penalty, or order within 45 days of the receipt of the written demand for a hearing. The Town shall transmit a copy of the hearing officer's decision by registered or certified mail.
 - (i) New Permits. Upon appeal, including a judicial review in the General Courts of Justice, of the terms or conditions of a newly issued permit, the terms and conditions of the entire permit are stayed, and the permit is not in effect until either the conclusion of judicial review or until the parties reach a mutual resolution.
 - (ii) Renewed Permits. Upon appeal, including a judicial review in the General Courts of Justice, of the terms or conditions of a renewed permit, the terms and conditions of the existing permit remain in effect until either the conclusion of judicial review or until the parties reach a mutual resolution.
- (2) Final Appeal Hearing. Any decision of a hearing officer made as a result of an adjudicatory hearing held under this Ordinance may be appealed to the Council serving the Town upon filing a written demand within 10-days of receipt of notice of the decision. Hearings held under this Subdivision shall be conducted in accordance with Local hearing procedures as established by local ordinance. Failure to make written demand within the time specified herein shall bar

further appeal. The Council serving the Town shall make a final decision on the appeal within 90 days of the date the appeal was filed and shall transmit a written copy of its decision by registered or certified mail.

- (3) **Official record.** When a final decision is issued under this Ordinance above, the Council serving the Town shall prepare an official record of the case that includes:
 - (i) All notices, motions, and other like pleadings;
 - (ii) A copy of all documentary evidence introduced;
 - (iii) A certified transcript of all testimony taken if the testimony is transcribed. If testimony is taken and not transcribed, then a narrative summary of any testimony taken.
 - (iv) A copy of the final decision of the Council or Board serving the Town.
- (4) **Judicial Review.** Any person against whom a final order or decision of the Council or Board serving the Town is entered, pursuant to the hearing conducted under this Ordinance above, may seek judicial review of the order or decision by filing a written petition within 30- days after receipt of notice by registered or certified mail of the order or decision, but not thereafter, with the **Superior Court of Franklin County** along with a copy to the Town. Within 30-days after receipt of the copy of the petition of judicial review, the Commissioners serving the Town shall transmit to the reviewing court the original or a certified copy of the official record.

(i) Permit Modification

- (1) Modifications of permits shall be subject to the same procedural requirements as the issuance of permits except as listed below. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance:
 - (i) changes in the ownership of the discharge when no other change in the permit is indicated,
 - (ii) a single modification of any compliance schedule not in excess of four months,
 - (iii) modification of compliance schedules (construction schedules) in permits for new sources where the new source will not begin to discharge until control facilities are operational.
- (2) Within nine months of the promulgation of a National categorical pretreatment standard, the wastewater discharge permit of users subject to such standards shall be revised to require compliance with such standard within the time frame prescribed by such standard. Where a user, subject to a National categorical pretreatment standard, has not previously submitted an application for a wastewater discharge permit as required by this Ordinance, the user shall apply for a wastewater discharge permit within 180 days after the promulgation of the applicable National categorical pretreatment standard.
- (3) A request for modification by the permittee shall constitute a waiver of the 60-day notice required by G.S. 143-215.1(b) for modifications.

(j) Permit Conditions

- (1) The Town shall have the authority to grant a permit with such conditions attached as he believes necessary to achieve the purpose of this ordinance and N.C.G.S. 143-215.1. Wastewater permits shall contain, but are not limited to, the following:

- (i) a statement of duration (in no case more than five-years);
- (ii) a statement of non-transferability;
- (iii) applicable effluent limits based on categorical standards or local limits or both;
- (iv) applicable monitoring, sampling, reporting, notification, and record-keeping requirements. These requirements shall include an identification of pollutants to be monitored, sampling location, sampling frequency, and sample type based on Federal, State, and local law;
- (v) requirements for notifying the POTW in the event of an accidental discharge or slug load as defined in this Ordinance;
- (vi) requirements to implement a Plan or other controls for the prevention of accidental discharges and/or slug loads as defined in this Ordinance if determined by the **Town** to be necessary for the User and,
- (vii) requirements for immediately notifying the POTW of any changes at its facility affecting the potential for spills and other accidental discharges or slug load as defined in **this Ordinance**. Also, see this Ordinance;
- (viii) a statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements and any applicable compliance schedule.

(2) In addition, permits may contain, but are not limited to, the following:

- (i) Limits on the average and/or maximum rate of discharge, and/or requirements for flow regulation and equalization.
- (ii) Limits on the instantaneous, daily, and monthly average and/or maximum concentration, mass, or another measure of identified wastewater pollutants or properties.
- (iii) Requirements for the installation of pretreatment technology or construction of appropriate containment devices, etc., designed to reduce, eliminate, or prevent the introduction of pollutants into the treatment works.
- (iv) Development and implementation of a waste minimization plan to reduce the number of pollutants discharged to the municipal wastewater system.
- (v) The unit charge or schedule of user charges and fees for the management of the wastewater discharged to the system.
- (vi) Requirements for installation and maintenance of inspection and sampling facilities and equipment.
- (vii) Specifications for monitoring programs which may include sampling locations, the frequency of sampling, number, types, and standards for tests, and reporting schedules.
- (viii) Requirements for immediate reporting of any instance of noncompliance and for automatic resampling and reporting within thirty (30) days where self-monitoring indicates a violation(s).
- (ix) Compliance schedules for meeting pretreatment standards and requirements.

- (x) Requirements for submission of periodic self-monitoring or special notification reports.
- (xi) Requirements for maintaining and retaining plans and records relating to wastewater discharges as specified in this Ordinance and affording the Town, or his representatives, access thereto.
- (xii) Requirements for prior notification and approval by the Town of any new introduction of wastewater pollutants or any significant change in the volume or character of the wastewater prior to introduction in the system.
- (xiii) Requirements for the prior notification and approval by the Town of any change in the manufacturing and/or pretreatment process used by the permittee.
- (xiv) A statement that compliance with the permit does not relieve the permittee of responsibility for compliance with all applicable Federal and State pretreatment standards, including those which become effective during the terms of the permit.
- (xv) Other conditions as deemed appropriate by the Town to ensure compliance with this ordinance and State and Federal laws, rules, and regulations.

(k) Permit Duration

Permits shall be issued for a specified time period, not to exceed five (5) years. A permit may be issued for a period less than a year or may be stated to expire on a specific date.

(l) Permit Transfer

Wastewater permits are issued to a specific user for a specific operation. A wastewater discharge permit shall not be reassigned or transferred, or sold to a new owner, new user, different premises, or a new or changed operation.

(m) Permit Reissuance

A significant industrial user shall apply for permit issuance by submitting a complete permit application in accordance with this Ordinance a minimum of 180-days prior to the expiration of the existing permit.

SECTION 5 - REPORTING REQUIREMENTS

5.1 Baseline Monitoring Reports

- (a) Within either one hundred eighty (180) days after the effective date of a categorical pretreatment standard, or the final administrative decision on a category determination under 40 CFR 403.6(a)(4), whichever is later, existing categorical users currently discharging to or scheduled to discharge to the POTW shall submit to the Town a report which contains the information listed in paragraph (b), below. At least ninety (90) days prior to the commencement of their discharge, new sources and sources that become categorical users subsequent to the promulgation of an applicable categorical standard shall submit to the Town a report which contains the information listed in paragraph (b) below. A new source shall report the method of pretreatment it intends to use to meet applicable categorical standards. A new source also shall give estimates of its anticipated flow and quantity of pollutants to be discharged.
- (b) Users described above shall submit the information set forth below:
 - (1) Identifying Information. The name and address of the facility, including the name of the Operator and Owner.

- (2) Environmental Permits. A list of any environmental control permits held by or for the facility.
- (3) Description of Operations. A brief description of nature, the average rate of production, and standard industrial classifications of the operation(s) carried out by such user. This description should include a schematic process diagram that indicates points of discharge to the POTW from the regulated processes.
- (4) Flow Measurement. Information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from regulated process streams and other streams, as necessary, to allow the use of the combined waste stream formula set out in 40 CFR 403.6(e).
- (5) Measurement of Pollutants.
 - (i) The categorical pretreatment standards applicable to each regulated process.
 - (ii) The results of sampling and analysis identifying the nature and concentration, and/or mass, where required by the standard or by the Town, of regulated pollutants in the discharge from each regulated process. Instantaneous, daily maximum, and long-term average concentrations, or mass, where required, shall be reported. The sample shall be representative of daily operations and shall be analyzed in accordance with procedures set out in this ordinance.
 - (iii) Sampling must be performed in accordance with procedures set out in this ordinance and 40 CFR 403.12(b) and (g), including 40 CFR 403.12(g)(4).
- (6) Certification. A statement, reviewed by the user's current authorized representative as defined in this Ordinance and certified by a qualified professional, indicating whether pretreatment standards are being met on a consistent basis and, if not, whether additional operation and maintenance (O&M) and/or additional pretreatment is required to meet the pretreatment standards and requirements.
- (7) Compliance Schedule. If additional pretreatment and/or O&M will be required to meet the pretreatment standards, the shortest schedule by which the user will provide such additional pretreatment and/or O&M. The completion date in this schedule shall not be later than the compliance date established for the applicable pretreatment standard. A compliance schedule pursuant to this section must meet the requirements set out in section 5-2080-1.2 of this ordinance.
- (8) Signature and Certification. All baseline monitoring reports must be signed and certified in accordance with section 5-2079-1.2(c) of this ordinance.

5.2 Compliance Schedule Progress Reports

The following conditions shall apply to the compliance schedule required by this ordinance:

- (a) The schedule shall contain progress increments in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the user to meet the applicable pretreatment standards (such events include, but are not limited to, hiring an engineer, completing preliminary and final plans, executing contracts for major components, commencing and completing construction, and beginning and conducting routine operation);
- (b) No increment referred to above shall exceed nine (9) months;
- (c) The user shall submit a progress report to the Town no later than fourteen (14) days following each date in the schedule and the final date of compliance, including, as a minimum, whether or not it

complied with the increment of progress, the reason for any delay, and, if appropriate, the steps being taken by the user to return to the established schedule; and

- (d) In no event shall more than nine (9) months elapse between such progress reports to the Town.

5.3 Reports on Compliance with Categorical Pretreatment Standard, Deadline

Within ninety (90) days following the date for final compliance with applicable categorical pretreatment standards, or in the case of a new source following the commencement of the introduction of wastewater into the POTW, any user subject to such pretreatment standards and requirements shall submit to the Town a report containing the information described in section **5-2080-1.1(b)(4-6)** of this ordinance. For users subject to equivalent mass or concentration limits established in this Ordinance with the procedures in 40 CFR 403.6(c), this report shall contain a reasonable measure of the user's long-term production rate. For all other users subject to categorical pretreatment standards expressed in terms of allowable pollutant discharge per unit of production (or another measure of operation), this report shall include the user's actual production during the appropriate sampling period. All compliance reports must be signed and certified in accordance with this ordinance.

5.4 Periodic Compliance Reports

Municipalities may sample and analyze user discharges in lieu of requiring users to conduct sampling and analysis.

- (a) All significant industrial users shall, at a frequency determined by the Town but in no case, less than once every six months, submit a report indicating the nature and concentration of pollutants in the discharge, which is limited by pretreatment standards and the applicable flows for the reporting period. Sampling and analysis must be performed in accordance with procedures set out in this ordinance. All periodic compliance reports must be signed and certified in accordance with this ordinance.
- (b) If a user subject to the reporting requirement in this section monitors any pollutant more frequently than required by the Town, using the procedures prescribed in s this ordinance, the results of this monitoring shall be included in the report.

5.5 Reports of Changed Conditions

Each user must notify the Town of any planned significant changes to the user's operations or system which might alter the nature, quality, or volume of its wastewater at least [thirty (30)] days before the change. See Section **5-2080-1.6(d)** for other reporting requirements.

- (a) The Town may require the user to submit such information as may be deemed necessary to evaluate the changed condition, including the submission of a wastewater discharge permit application under this ordinance.
- (b) The Town may issue a wastewater discharge permit under this ordinance or modify an existing wastewater discharge permit under this ordinance in response to changed conditions or anticipated changed conditions.
- (c) For purposes of this requirement, significant changes include, but are not limited to, flow increases of twenty percent (20%) or greater and the discharge of any previously unreported pollutants.

5.6 Reports of Potential Problems

- (a) In the case of any discharge, including, but not limited to, accidental discharges, discharges of a non-routine, episodic nature, a non-customary batch discharge, or a slug load as defined in this

Ordinance, that may cause potential problems for the POTW, the user shall immediately telephone and notify the Town of the incident. This notification shall include the location of the discharge, type of waste, concentration, and volume, if known, and corrective actions taken by the user.

- (b) Within five (5) days following such discharge, the user shall, unless waived by the Town, submit a detailed written report describing the cause(s) of the discharge and the measures to be taken by the user to prevent similar future occurrences. Such notification shall not relieve the user of any expense, loss, damage, or other liability which may be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall such notification relieve the user of any fines, penalties, or other liability which may be imposed pursuant to this ordinance.
- (c) A notice shall be permanently posted on the user's bulletin board or other prominent place advising employees whom to call in the event of a discharge described in paragraph (a) above. Employers shall ensure that all employees, who may cause such a discharge to occur, are advised of the emergency notification procedure.
- (d) All SIUs are required to notify the POTW immediately of any changes at its facility affecting the potential for spills and other accidental discharge, discharge of a non-routine, episodic nature, a non-customary batch discharge, or a slug load as defined in this Ordinance.

5.7 Reports from Unpermitted Users

All users not required to obtain a wastewater discharge permit shall provide appropriate reports to the Town as the Town may require.

5.8 Notice of Violation/Repeat Sampling and Reporting

- (a) If sampling performed by a user indicates a violation, the user must notify the Town within twenty-four (24) hours of becoming aware of the violation. The user shall also repeat the sampling and analysis and submit the results of the repeat analysis to the Town within thirty (30) days after becoming aware of the violation. If allowed by the Town, the user is not required to resample:
 - (i) if the Town monitors at the user's facility at least once a month; or
 - (ii) if the Town samples between the user's initial sampling and when the user receives the sampling results.
- (b) If the Town does not require the user to perform any self-monitoring and the POTW sampling of the user indicates a violation, the Town shall repeat the sampling and obtain the results of the repeat analysis within thirty (30) days after becoming aware of the violations, unless one of the following occurs:
 - (i) the Town monitors at the user's facility at least once a month; or
 - (ii) the Town samples the user between their initial sampling and when the POTW receives the results of this initial sampling; or
 - (iii) the Town requires the user to perform sampling and submit the results to the Town within the 30-day deadline of the POTW becoming aware of the violation.

5.9 Notification of the Discharge of Hazardous Waste

The Town prohibits the discharge of any hazardous wastes without notification and approval of the Town.

- (a) Any user who commences the discharge of hazardous waste shall notify the POTW, the EPA Regional Waste Management Division Director, and State hazardous waste authorities, in writing,

of any discharge into the POTW of a substance which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the user discharges more than one hundred (100) kilograms of such waste per calendar month to the POTW, the notification also shall contain the following information to the extent such information is known and readily available to the user: identification of the hazardous constituents contained in the wastes, an estimation of the mass and concentration of such constituents in the waste stream discharge during the calendar month, and an estimation of the mass of constituents in the waste stream expected to be discharged during the following twelve (12) months. All notifications must take place no later than one hundred and eighty (180) days after the discharge commences. Any notification under this paragraph needs to be submitted only once for each hazardous waste discharge. However, notifications of changed conditions must be submitted under section 5-2080-1.5 of this ordinance. The notification requirement in this section does not apply to pollutants already reported by users subject to categorical pretreatment standards under the self-monitoring requirements of this ordinance.

- (b) Dischargers are exempt from the requirements of paragraph [(a)] above during a calendar month in which they discharge no more than fifteen (15) kilograms of hazardous wastes unless the wastes are acute hazardous wastes as specific in 40 CFR 261.30(d) and 261.33(e). Discharge of more than fifteen (15) kilograms of nonacute hazardous wastes in a calendar month or of any quantity of acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e) requires a one-time notification. Subsequent months during which the user discharges more than such quantities of any hazardous waste do not require additional notification.
- (c) In the case of any new regulation under section 3001 of RCRA identifying additional characteristics of hazardous waste or listing any additional substance as hazardous waste, the user must notify the Town, the EPA Regional Waste Management Waste Division Director, and State hazardous waste authorities of the discharge of such substance within ninety (90) days of the effective date of such regulations.
- (d) In the case of any notification made under this section, the user shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.
- (e) This provision does not create a right to discharge any substance not otherwise permitted to be discharged by this ordinance, a permit issued thereunder, or any applicable Federal or State law.

5.10 Analytical Requirements

All pollutant analyses, including sampling techniques, to be submitted as part of a wastewater discharge permit application or report shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 unless otherwise specified in an applicable categorical pretreatment standard. If 40 CFR Part 136 does not contain sampling or analytical techniques for the pollutant in question, sampling and analyses must be performed in accordance with procedures approved by EPA.

5.11 Grab and Composite Sample Collection

- (a) All wastewater samples must be representative of the user's discharge. Wastewater monitoring and flow measurement facilities shall be properly operated, kept clean, and maintained in good working order at all times. The failure of a user to keep its monitoring facility in good working order shall not be grounds for the user to claim that sample results are unrepresentative of its discharge.
- (b) Grab Samples must be used for pH, cyanide, total phenols, oil and grease, sulfide, volatile organic compounds, and any other pollutants as required by 40 CFR 136. The POTW shall determine the number of grabs necessary to be representative of the User's discharge. See 40 CFR 403.12(g)(5) for additional grab sample number requirements for BMR and 90-Day Compliance Reports. Additionally, the Town may allow the collection of multiple grabs during a 24-hour period which is composited prior to analysis as allowed under 40 CFR 136.

- (c) Composite Samples: All wastewater composite samples shall be collected with a minimum of hourly aliquots or grabs for each hour that there is a discharge. All wastewater composite samples shall be collected using flow-proportional composite collection techniques unless time-proportional composite sampling or grab sampling is authorized by the Town. When authorizing time-proportional composites or grabs, the samples must be representative, and the decision to allow the alternative sampling must be documented.

5.12 Timing

Written reports will be deemed to have been submitted on the date postmarked. For reports which are not mailed, postage prepaid, into a mail facility serviced by the United States Postal Service, the date of receipt of the report shall govern.

5.13 Record Keeping

Users subject to the reporting requirements of this ordinance shall retain, and make available for inspection and copying, all records of information obtained pursuant to any monitoring activities required by this ordinance and any additional records of information obtained pursuant to monitoring activities undertaken by the user independent of such requirements. Records shall include the date, exact place, method, and time of sampling, and the name of the person(s) taking the samples; the dates analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses. These records shall remain available for a period of at least three (3) years. This period shall be automatically extended for the duration of any litigation concerning the user or the Town or where the user has been specifically notified of a longer retention period by the Town.

5.14 Electronic Reporting

The Town may develop procedures for receiving electronic reports for any reporting requirements of this Ordinance. Such procedures shall comply with 40 CFR Part 3. These procedures shall be enforceable under Section 8 of this Ordinance.

SECTION 6 - COMPLIANCE MONITORING

6.1 Monitoring Facilities

The Town requires the user to provide and operate, at the user's own expense, monitoring facilities to allow inspection, sampling, and flow measurement of the building sewer and/or internal drainage systems. The monitoring facility should normally be situated on the user's premises, but the Town may, when such a location would be impractical or cause undue hardship on the user, allow the facility to be constructed in the public street or sidewalk area and located so that it will not be obstructed by landscaping or parked vehicles.

There shall be ample room in or near such sampling manhole or facility to allow accurate sampling and preparation of samples for analysis. The facility, sampling, and measuring equipment shall be maintained at all times in a safe and proper operating condition at the user's expense.

Whether constructed on public or private property, the sampling and monitoring facilities shall be provided in accordance with the Town's requirements and all applicable local construction standards and specifications. Construction shall be completed within 90 days following written notification by the Town.

6.2 Inspection and Sampling

The Town will inspect the facilities of any user to ascertain whether the purpose of this ordinance is being met and all requirements are being complied with. Persons or occupants of premises where wastewater is created or discharged shall allow the Town, approval authority, and EPA or their representative ready access at all reasonable times to all parts of the premises for the purposes of inspection, sampling, records

examination, and copying or in the performance of any of their duties. The Town, approval authority, and EPA shall have the right to set up on the user's property such devices as are necessary to conduct sampling, inspection, compliance monitoring, and/or metering operations. Where a user has security measures in force that would require proper identification and clearance before entry into their premises, the user shall make necessary arrangements with their security guards so that upon presentation of suitable identification, personnel from the Town, approval authority, and EPA will be permitted to enter, without delay, for the purposes of performing their specific responsibilities. Denial of the Town's approval authority's or EPA's access to the user's premises shall be a violation of this ordinance. Unreasonable delays may constitute a denial of access.

6.3 Search Warrants

If the Town, approval authority, or EPA has been refused access to a building, structure, or property, or any part thereof, and is able to demonstrate probable cause to believe that there may be a violation of this ordinance or that there is a need to inspect and/or sample as part of a routine inspection and sampling program of the Town designed to verify compliance with this ordinance or any permit or order issued hereunder, or to protect the overall public health, safety and welfare of the community, then the Town, approval authority, or EPA may seek issuance of a search warrant from the court having jurisdiction within the Town.

SECTION 7 - CONFIDENTIAL INFORMATION

Information and data on a user obtained from reports, questionnaires, permit applications, permits, and monitoring programs, and from inspections shall be available to the public or other governmental agencies without restriction unless the user specifically requests and is able to demonstrate to the satisfaction of the Town that the release of such information would divulge information, processes or methods of production entitled to protection as trade secrets of the user. Any such request must be asserted at the time of submission of the information or data.

When requested by the person furnishing a report, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public but shall be made available upon written request to governmental agencies for uses related to this ordinance, the National Pollutant Discharge Elimination System (NPDES) Permit, Non-discharge permit and/or the pretreatment programs; provided, however, that such portions of a report shall be available for use by the State or any state agency in judicial review or enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics will not be recognized as confidential information.

All records relating to compliance with Pretreatment Standards shall be made available to officials of the approval authority and EPA upon request.

SECTION 8 – ENFORCEMENT

8.1 Administrative Remedies

(a) Notification of Violation

Whenever the Town finds that any industrial user has violated or is violating this Ordinance, wastewater permit, or any prohibition, limitation, or requirements contained therein or any other pretreatment requirement the Town may serve upon such a person a written notice stating the nature of the violation. Within 30 days from the date of this notice, an explanation for the violation and a plan for the satisfactory correction thereof shall be submitted to the Town by the user. Submission of this plan does not relieve the discharger of liability for any violations occurring before or after receipt of the notice of violation.

(b) Consent Orders

The Town is hereby empowered to enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with the person responsible for the non-

compliance. Such orders will include specific actions to be taken by the discharger to correct the noncompliance within a time period also specified by the order. Consent orders shall have the same force and effect as an administrative order issued pursuant to the section below.

(c) Show Cause Hearing

The Town may order any industrial user who causes or is responsible for an unauthorized discharge, has violated this ordinance or is in noncompliance with a wastewater discharge permit to show cause why a proposed enforcement action should not be taken. In the event the Town determines that a show cause order should be issued, a notice shall be served on the user specifying the time and place for the hearing, the proposed enforcement action, the reasons for such action, and a request that the user show cause why this proposed enforcement action should not be taken. The notice of the hearing shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days before the hearing. Service may be made on any agent or officer of a corporation.

The Town shall review the evidence presented at the hearing and determine whether the proposed enforcement action is appropriate.

A show cause hearing under this section is not a prerequisite to the assessment of a civil penalty under this Ordinance, nor is any action or inaction taken by the Town under this section subject to an administrative appeal under this Ordinance.

(d) Administrative Orders

When the Town finds that an industrial user has violated or continues to violate this ordinance, permits or orders issued hereunder, or any other pretreatment requirement, the Town may issue an order to cease and desist all such violations and direct those persons in noncompliance to do any of the following:

- (1) Immediately comply with all requirements;
- (2) Comply in accordance with a compliance time schedule set forth in the order;
- (3) Take appropriate remedial or preventive action in the event of a continuing or threatened violation;
- (4) Disconnect unless adequate treatment facilities, devices, or other related appurtenances are installed and properly operated within a specified time period.

(e) Emergency Suspensions

The Town may suspend the wastewater treatment service and/or wastewater permit when such suspension is necessary to stop an actual or threatened discharge that presents or may present an imminent or substantial endangerment to the health or welfare of persons or the environment, interferes with the POTW or causes the POTW to violate any condition of its NPDES or Non-discharge permit.

Any user notified of a suspension of the wastewater treatment service and/or the wastewater permit shall immediately stop or eliminate the contribution. A hearing will be held within 15 days of the notice of suspension to determine whether the suspension may be lifted or the user's waste discharge permit terminated. In the event of a failure to comply voluntarily with the suspension order, the Town shall take such steps as deemed necessary, including immediate severance of the sewer connection, to prevent or minimize damage to the POTW system or endangerment to any individuals. The Town shall reinstate the wastewater permit and the wastewater treatment service upon proof of the elimination of the non-compliant discharge. The industrial user shall submit a detailed written statement describing the causes of the harmful contribution and the measures taken to prevent any future occurrence to the Town prior to the date of the above-described hearing.

(f) Termination of Permit or Permission to Discharge

The **Town** may revoke a wastewater discharge permit or permission to discharge for a good cause, including, but not limited to, the following reasons:

- (1) Failure to accurately report the wastewater constituents and characteristics of his discharge;
- (2) Failure to report significant changes in operations or wastewater constituents and characteristics;
- (3) Refusal of reasonable access to the user's premises for the purpose of inspection or monitoring;
or,
- (4) Violation of conditions of the permit or permission to discharge, conditions of this ordinance, or any applicable State and Federal regulations.

Noncompliant industrial users will be notified of the proposed termination of their wastewater permit and will be offered an opportunity to show cause under section **5-2083-1.1** of this ordinance why the proposed action should not be taken.

8.2 Civil Penalties

(a) Any user who is found to have failed to comply with any provision of this ordinance, or the orders, rules, regulations, and permits issued hereunder, may be fined up to twenty-five thousand dollars (\$25,000) per day per violation.

a. Penalties between \$10,000 and \$25,000 per day per violation may be assessed against a violator only if:

- i. For any class of violation, only if a civil penalty has been imposed against the violator within the five years preceding the violation, or
- ii. In the case of failure to file, submit, or make available, as the case may be, any documents, data, or reports required by this ordinance, or the orders, rules, regulations, and permits issued hereunder, only if the Town determines that the violation was intentional and a civil penalty has been imposed against the violator within the five years preceding the violation.

(b) In determining the amount of the civil penalty, the Town shall consider the following:

- (i) The degree and extent of the harm to the natural resources, to the public health, or to public or private property resulting from the violation;
- (ii) The duration and gravity of the violation;
- (iii) The effect on ground or surface water quantity or quality or on-air quality;
- (iv) The cost of rectifying the damage;
- (v) The amount of money saved by noncompliance;
- (vi) Whether the violation was committed willfully or intentionally;
- (vii) The prior record of the violator in complying or failing to comply with the pretreatment program;
- (viii) The costs of enforcement to the Town.

- (c) Appeals of civil penalties assessed in accordance with this section shall be as provided in this Ordinance

8.3 Other Available Remedies

Remedies, in addition to those previously mentioned in this ordinance, are available to the Town, who may use any single one or combination against a noncompliant user. Additionally, available remedies include, but are not limited to:

- (a) Criminal Violations.

The District Attorney for the applicable Judicial District may, at the Town's request, prosecute non-compliant users who violate the provisions of N.C.G.S. 143-215.6B. [Note: Under North Carolina law, it is a crime to negligently violate any term, condition, or requirement of a pretreatment permit or negligently fail to apply for a pretreatment permit issued by local governments (G.S. 143-215.6B(f)), to knowingly and willfully violate any term, condition, or requirement of a pretreatment permit, or knowingly and willfully fail to apply for a pretreatment permit, issued by local governments (G.S. 143-215.6B(g)), to knowingly violate any term, condition, or requirement of a pretreatment permit issued by local governments, or knowingly fail to apply for a pretreatment permit, knowing at the time that a person is placed in imminent danger of death or serious bodily injury, (G.S. 143-215.6B(h)), and to falsify information required under Article 21 of Chapter 143 of the General Statutes (G.S. 143-215.6B(i)).]

- (b) Injunctive Relief

Whenever a user is in violation of the provisions of this ordinance or an order or permits issued hereunder, the Town, through the City Attorney, may petition the Superior Court of Justice for the issuance of a restraining order or a preliminary and permanent injunction which restrains or compels the activities in question.

- (c) Water Supply Severance

Whenever an industrial user is in violation of the provisions of this ordinance or order or permit issued hereunder, water service to the industrial user may be severed, and service will only recommence, at the user's expense, after it has satisfactorily demonstrated the ability to comply.

- (d) Public Nuisances

Any violation of the prohibitions or effluent limitations of this ordinance or of a permit or order issued hereunder is hereby declared a public nuisance and shall be corrected or abated as directed by the Town. Any person(s) creating a public nuisance shall be subject to the provisions of the appropriate ordinances of the Town governing such nuisances, including reimbursing the POTW for any costs incurred in removing, abating, or remedying said nuisance.

8.4 Remedies Nonexclusive

The remedies provided for in this ordinance are not exclusive. The Town may take any, all, or any combination of these actions against a noncompliant user. Enforcement of pretreatment violations will generally be in accordance with the [Town's] enforcement response plan. However, the Town may take other action against any user when the circumstances warrant. Further, the Town is empowered to take more than one enforcement action against noncompliant users.

SECTION 9 - ANNUAL PUBLICATION OF SIGNIFICANT NON-COMPLIANCE

At least annually, the Town shall publish in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW a list of those industrial users which were found to be in significant noncompliance, also referred to as reportable noncompliance, in 15A NCAC 2H .0903(b) (10), with applicable pretreatment standards and requirements, during the previous 12-months.

SECTION 10 - AFFIRMATIVE DEFENSES TO DISCHARGE VIOLATIONS

10.1 Upset

- (a) An upset shall constitute an affirmative defense to an action brought for noncompliance with categorical pretreatment standards if the requirements of paragraph (b) below are met.
- (b) A user who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, that:
 - (1) An upset occurred, and the user can identify the cause(s) of the upset;
 - (2) The facility was at the time being operated in a prudent and workmanlike manner and in compliance with applicable operation and maintenance procedures; and
 - (3) The user has submitted the following information to the Town within twenty-four (24) hours of becoming aware of the upset [if this information is provided orally, a written submission must be provided within five (5) days]:
 - (i) A description of the indirect discharge and cause of noncompliance;
 - (ii) The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and
 - (iii) Steps being taken and/or planned to reduce, eliminate, and prevent the recurrence of non-compliance.
- (c) In any enforcement proceeding, the user seeking to establish the occurrence of an upset shall have the burden of proof.
- (d) Users will have the opportunity for a judicial determination on any claim of upset only in an enforcement action brought for noncompliance with categorical pretreatment standards.
- (e) Users shall control the production of all discharges to the extent necessary to maintain compliance with categorical pretreatment standards upon reduction, loss, or failure of its treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

10.2 Prohibited Discharge Standards Defense

A user shall have an affirmative defense to an enforcement action brought against it for noncompliance with the general prohibitions in this ordinance or the specific prohibitions in sections in this ordinance if it can prove that it did not know or have reason to know that its discharge, alone or in conjunction with discharges from other sources, would cause pass through or interference and that either:

- (a) A local limit exists for each pollutant discharged, and the user complied with each limit directly prior to and during the pass-through or interference; or
- (b) No local limit exists, but the discharge did not change substantially in nature or constituents from the user's prior discharge when [the Town] was regularly in compliance with its NPDES permit and, in the case of interference, complied with applicable sludge use or disposal requirements.

10.3 Bypass

- (a) A user may allow any bypass to occur which does not cause pretreatment standards or requirements to be violated, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of paragraphs (b) and (c) of this section.
- (b)
 - (1) If a user knows in advance of the need for a bypass, it shall submit prior notice to the Town at least ten (10) days before the date of the bypass, if possible.
 - (2) A user shall submit an oral notice to the Town of an unanticipated bypass that exceeds applicable pretreatment standards within twenty-four (24) hours from the time it becomes aware of the bypass. A written submission shall also be provided within five (5) days of this time the user becomes aware of the bypass. The written submission shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times; and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass. The Town may waive the written report on a case-by-case basis if the oral report has been received within twenty-four (24) hours.
- (c)
 - (1) The bypass is prohibited, and the Town may take enforcement action against a user for a bypass unless
 - (i) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and
 - (iii) The user submitted notices as required under paragraph (b) of this section.
 - (2) The Town may approve an anticipated bypass after considering its adverse effects if the Town determines that it will meet the three conditions listed in paragraph [(c)(1)] of this section.

SECTION 11 – SEVERABILITY

If any provision, paragraph, word, section, or article of this ordinance is invalidated by any court of competent jurisdiction, the remaining provisions, paragraphs, words, sections, and chapters shall not be affected and shall continue in full force and effect.

SECTION 12 - CONFLICT

All other ordinances and parts of other ordinances inconsistent or conflicting with any part of this ordinance are hereby repealed to the extent of such inconsistency or conflict.

SECTION 13 - EFFECTIVE DATE

This ordinance shall be in full force and effect from and after its passage, approval, and publication, as provided by law.

Delinquent Account Policy

Town of Bunn

Delinquent Utility Account Policy

Past due accounts incur additional charges and may result in disrupted services until the account is paid in full.

Delinquency occurs when a full payment is not made by the due date. It is important to understand the consequences and additional charges associated with delinquent accounts.

Delinquent utility accounts are subject to disconnection of water, waste water (sewer) and/or trash collection.

Past Due Accounts

Any balance not paid in full by the 15th of the month is considered past due (delinquent) and the account is subject to a \$20 late fee. If the 15th falls on a weekend or holiday the fee will be applied on the next business day.

All past due amounts and late fees must be received no later than 5:00 P.M. on the 25th or the next business day if the 25th falls on a weekend or holiday, to avoid disconnection.

Disconnection at Customer's Expense

Delinquent utility accounts are subject to disconnection of water, waste water (sewer) and /or trash collection service at the customer's expense.

Field representatives cannot accept any payments. A \$75.00 fee will be incurred on any account when a field representative is dispatched to disconnect service.

Restore Service After Disconnection

If water, waste water (sewer) or trash collection has been disconnected because your utility account is delinquent, *you must pay your full account balance.*

Service will be restored within 24 hours after your full payment is processed by the Town of Bunn. To expedite the restoration of service, you must make the payment in person at Bunn Town Hall, located at 601 Main St., Bunn, NC 27508 by 12:00 noon.

NOTE: If a returned payment (e.g. NSF Closed Bank Account, etc.) is applied on an account, and that account is then delinquent, services may be disrupted immediately.

Be sure that faucets are turned off and sink/tub stoppers are open before service is reconnected to prevent accidental flooding.

Can't Pay Your Bill?

Help may be available if you can't pay your utility bill by the due date. DO NOT wait until your service has been disconnected for non-payment. If you are having trouble paying your bill, call 919-496-2992 to speak with a representative or come in person to the office at Town Hall located at 601 Main St., Bunn, NC 27508.

Medical Life Support Eligibility

Certain medical conditions make it favorable to have continual access to the Town of Bunn Water and Sewer System. The Utility Billing Department has adopted a Medical Life Support policy, which offers eligible customers with certain medical qualifications to have ***additional notification prior to disconnection*** of their utility services in cases of nonpayment and delinquency.

Upon receipt of three (3) items listed below, Utility Billing staff will review your case to determine eligibility. Several aspects may affect eligibility such as payment history, credit within the Utility Billing System and medical condition.

- (1) Completed Medical Life Support Application
- (2) Completed and Signed Medical Life Support Terms and Conditions
- (3) Supporting documentation for your Medical Provider

If eligibility is determined, you will be notified by a Utility Billing Division staff member. Your account will be updated to reflect Medical Life Support; and, in the event of potential disconnection of your utility services for nonpayment, you will be provided additional prior notification.

If your services are interrupted due to nonpayment, the account balance will need to be paid in full prior to reconnection of services, and the Medical Life Support qualification will be removed from your account.

In order to maintain Medical Life Support eligibility each year, customers must submit a new signed Medical Life Support Terms and Conditions Form, a new completed Medical Life Support Application and update supporting documentation from your Medical Provider **annually**.

Payment Plans for Unpaid Utility Bills

Need more time to pay your Town of Bunn utility bill?

As a courtesy to customers with unpaid utility bills, the Town of Bunn Utility Billings Division may grant one (1) payment plan per calendar year (January 1 – December 30). **Requests for payment plans must be received in writing five (5) business days prior to cut-off date.**

Qualifications:

- Customer must have a good payment and collections history within the Utility Billing System.
- No more than one (1) payment plan per account in a 12-month period.
- Customer may be required to make a partial payment on the account prior to establishing a payment plan.
- All past due charges, including those associated with a payment plan, will be subject to late payment charges
- In addition to keeping payment plan installments current, all new and future charges must also be paid on time, including late fees.
- Payment plans must be requested prior to disconnection of service. If service is disconnected, or if a disconnection notice has been processed, the account **does not qualify** for a payment plan.
- **DON'T WAIT UNTIL SERVICE HAS BEEN DISCONNECTED!** If the account has already been disconnected due to nonpayment, or if a trip has been made to the premise to turn service off, full payment must be received before utility services can be reinstated.
- Call 919-496-2992 or come in person to Town of Bunn, Town Hall at 601 Main St. Bunn, NC 27508.

Defaulting on a Payment Plan

Any of the following constitutes "Default":

- Failure to pay a payment plan installment **on or before** the due date.
- Payment amount is less than the agreed-upon payment installment.
- Failure to pay the full amount of new/future charges (not associated to the payment plan) **on or before** the due date.

Consequences of Default

- No further payment plans will be established during the next twelve months.
- Accounts remaining delinquent for more than 60 days will be closed and a new deposit will be required.

Town of Bunn-Water Leak Policy

The Town of Bunn prohibits a customer from knowingly allowing water to escape through leaks, breaks, or malfunctions within the water user's plumbing distribution system (customer side of water meter) for any period beyond which such leak or break should reasonably have been repaired or corrected. All leaks, breaks, or malfunctions shall be corrected with 5 days of identification of the source of the leak.

Exterior Use:

Outdoor water leaks on the property or facilities of the Town of Bunn customers shall be repaired with 5 days of discovery by the customer and/or notification by the Town of Bunn.

Interior Use:

Indoor water leaks on property or facilities of the Town of Bunn customers shall be repaired within 5 days of discovery by the customer and/or notification by the Town of Bunn.

**Cross-Connection Control
Ordinance**

**TOWN OF BUNN
CROSS-CONNECTION CONTROL
ORDINANCE**

SECTION

- 01 Purpose**
- 02 Objectives of Article**
- 03 Responsibilities**
- 04 Definitions**
- 05 Right of Entry**
- 06 Elimination of Cross-Connections; Degree of Hazard**
- 07 Installation of Assemblies**
- 08 Testing and Repair of Assemblies**
- 09 Facilities Requiring Protection**
- 10 Connections with Unapproved Sources of Supply**
- 11 Fire Protection Systems**
- 12 Enforcement**
- 13 Severability**
- 14 Approved Backflow Preventer List**

SECTION 01 PURPOSE

- (a) The purpose of this cross-connection control article is to define the authority of the *Town of Bunn* as the water purveyor in eliminating all cross-connections within its public potable water supply.
- (b) This article shall apply to all users connected to the *Town of Bunn* public potable water supply regardless of whether the user is located within or outside the Bunn town limits.
- (c) This article will comply with the *Federal Safe Drinking Water Act (PL 93-523)*, the *North Carolina State Administrative Code (§15A NCAC 18C)*, and the *North Carolina State Building Code (Volume II as amended)* as they pertain to cross-connections with the public water supply.

SECTION 02 OBJECTIVES OF THE ARTICLE

The specific objectives of this cross-connection control article for the *Town of Bunn* are as follows:

- (1) To protect the public potable water supply of the *Town of Bunn* against actual or potential contamination by isolating contaminants or pollutants within the consumer's water system that could, under adverse conditions, backflow through uncontrolled cross-connections into the public water system.

- (2) To eliminate or control existing cross connections, actual or potential, between the consumer's potable water system and nonpotable or industrial piping system.
- (3) To provide a continuing inspection program of cross-connection control which will systematically and effectively control all actual or potential cross-connections which may be installed in the future.

SECTION 03 RESPONSIBILITIES

(a) *Health agency*

The state department of environment and natural resources has the responsibility for promulgating and enforcing laws, rules, regulations, and policies to be followed in carrying out an effective cross connection control program. The *North Carolina Department of Environmental Quality (NCDEQ)* is also primarily responsible for ensuring that the water purveyor operates the public potable water system free of actual or potential sanitary hazards, including unprotected cross-connections. The state department of environment and natural resources has the further responsibility of insuring that the water purveyor provides an approved water supply at the service connection to the consumer's water system and, further, that he requires the installation, testing, and maintenance of an approved backflow prevention assembly on the service connection when required.

(b) *Water purveyor*

Except as otherwise provided in this article, the water purveyor's the *Town of Bunn* responsibility to ensure a safe water supply begins at the source and includes all of the public water distribution system, including the service connection, and ends at the point of delivery to the consumer's water system. In addition, the water purveyor shall exercise reasonable vigilance to insure that the consumer has taken the proper steps to protect the public potable water system. To insure that the proper precautions are taken, the *Town of Bunn* is required to determine the degree of hazard or potential hazard to the public potable water system; to determine the degree of protection required; and to ensure proper containment protection through an on-going inspection program. When it is determined that a backflow prevention assembly is required for the protection of the public system, the *Town of Bunn* shall require the consumer, at the consumer's expense, to install an approved backflow prevention assembly at each service connection, to test immediately upon installation and thereafter at a frequency as determined by the *Town of Bunn*, to properly repair and maintain such assembly or assemblies and to keep adequate records of each test and subsequent maintenance and repair, including materials and/or replacement parts.

(c) *Plumbing inspection*

The *Wayne County, Plumbing Inspection Department*, is responsible for reviewing building plans and inspecting plumbing as it is installed; they have the explicit responsibility of preventing cross connections from being designed and built into the plumbing system within its jurisdiction. Where the review of building plans suggests or detects the potential for cross-connections being made an integral part of the plumbing system, the plumbing inspector has the responsibility, under the state building code, for

requiring that such cross-connections be either eliminated or provided with backflow prevention equipment approved by the state building code. The plumbing inspector's responsibility begins at the point of delivery, downstream of the first installed backflow prevention assembly, and continues throughout the entire length of the consumer's water system. The plan inspector should inquire about the intended use of water at any point where it is suspected that a cross-connection might be made or where one is actually called for by the plans. When such is discovered it shall be mandatory that a suitable, approved backflow prevention assembly approved by the state building code be required by the plans and be properly installed. The primary protection assembly for containment purposes only shall have approval from the *Town of Bunn*, the *North Carolina Building Code*, and the *North Carolina Department of Environmental Quality (NCDEQ)*

(d) *Consumer*

The consumer has the primary responsibility of preventing pollutants and contaminants from entering his potable water system or the public potable water system. The consumer's responsibility starts at the point of delivery from the public potable water system and includes all of his water system. The consumer, at his own expense, shall install, operate, test, and maintain approved backflow prevention assemblies as directed by the *Town of Bunn*. The consumer shall maintain accurate records of tests and repairs made to backflow prevention assemblies and shall maintain such records for a minimum period of three years. The records shall be on forms approved by the *Town of Bunn* and shall include the list of materials or replacement parts used. Following any repair, overhaul, repiping or relocation of an assembly, the consumer shall have it tested to insure that it is in good operating condition and will prevent backflow. Tests, maintenance and repairs of backflow prevention assemblies shall be made by a certified backflow prevention assembly tester.

(e) *Certified backflow prevention assembly testers*

When employed by the consumer to test, repair, overhaul, or maintain backflow prevention assemblies, a backflow prevention assembly tester will have the following responsibilities: The tester will be responsible for making competent inspections and for repairing or overhauling backflow prevention assemblies and making reports of such repair to the consumer and responsible authorities on forms approved by the *Town of Bunn*. The tester shall include the list of materials or replacement parts used. The tester shall be equipped with and be competent to use all the necessary tools, gauges, manometers and other equipment necessary to properly test, repair, and maintain backflow prevention assemblies. It will be the tester's responsibility to insure that original manufactured parts are used in the repair of or replacement of parts in a backflow prevention assembly. It will be the tester's further responsibility not to change the design, material or operational characteristics of an assembly during repair or maintenance without prior approval of the *Town of Bunn*. A certified tester shall perform the work and be responsible for the competency and accuracy of all tests and reports. A certified tester shall provide a copy of all test and repair reports to the consumer and the *Town of Bunn Public Works Department* within ten business days of any completed test or repair work. A certified tester shall maintain such records for a minimum period of three years. All certified backflow prevention assembly testers must obtain and employ backflow prevention assembly test equipment which has been evaluated and/or approved by the *Town of Bunn*. All test

equipment shall be registered with the *Town of Bunn Public Works Department*. All test equipment shall be checked for accuracy annually, at a minimum, calibrated, if necessary, and certified to the *Town of Bunn* as to such calibration, employing an accuracy/calibration method acceptable to the *Town of Bunn*. All certified backflow prevention assembly testers must become re-certified every two years through an approved backflow prevention certification program.

SECTION 04 DEFINITIONS

The following words, terms, and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

AIR GAP SEPARATION means a physical separation between the free-flowing discharge end of a potable water supply pipeline and an open or non-pressure receiving vessel. An approved air-gap separation shall be at least double the diameter of the supply pipe measured vertically above the overflow rim of the receiving vessel, in no case less than one inch (2.54 cm).

APPROVED means, as used in reference to a water supply, a water supply that has been approved by the state Department of environment and natural resources; or, as used in reference to air-gap Separation, a pressure vacuum breaker, a double check valve assembly, a double check detector assembly, a reduced pressure principle backflow prevention assembly, a reduced pressure principle detector assembly, or other backflow prevention assemblies or methods means approval by the *Town of Bunn*.

BACKFLOW means the undesirable reversal of water flow or mixtures of water and other liquids, gases, or other substances into the distribution pipes of the consumer or public potable water system from any source or source.

BACKFLOW PREVENTION ASSEMBLY-APPROVED The term "approved backflow prevention assembly" means an assembly used for containment and/or isolation purposes that has been investigated and approved by the *Town of Bunn* and has been shown to meet the design and performance standards of the *American Society of Sanitary Engineering (ASSE)*, the *American Water Works Association (AWWA)*, or the *Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California*. The approval of backflow prevention assemblies by the *Town of Bunn* is based on a favorable report by the *Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California*, recommending such approval. To be approved, an assembly must be readily accessible for in-line testing and maintenance. The *Town of Bunn* reserves the right to evaluate any backflow prevention assembly through a field evaluation process for approval, if necessary, for a period established by the town.

BACKFLOW PREVENTION ASSEMBLY-UNAPPROVED The term "unapproved backflow prevention assembly" means an assembly that has been investigated by the *Town of Bunn* and determined to be unacceptable for installation within the *Town of Bunn* water system. Consideration for disapproval and removal from the "approved list" shall be based upon, but not limited to, the following criteria: (i) Due to poor performance standards (i.e., significant failure rate); (ii) lack of or unavailability of repair parts; and/or, (iii) poor service or response from assembly's factory representative.

BACKFLOW PREVENTION ASSEMBLY-TYPE means an assembly that prevents backflow into a consumer or public potable water system. The type of assembly used should be based on the degree of hazard, either existing or potential. The types are:

- (1) Double-check valve assembly (DCVA).
- (2) Double-check detector assembly (fire system) (DCDA).
- (3) Pressure vacuum breaker (PVB).
- (4) Atmospheric vacuum breaker (AVB)
- (5) Reduced pressure principle assembly (RP).
- (6) Reduced pressure principle detector assembly (fire system). (RPDA).

BACKFLOW PREVENTION ASSEMBLY TESTER-CERTIFIED The term "certified backflow prevention assembly tester" means a person who has proven his competency to the satisfaction of the *Town of Bunn*. Each person who is certified to make competent tests, or to repair, overhaul, and make reports on backflow prevention assemblies shall be knowledgeable of applicable laws, rules, and regulations, shall be a licensed plumber, or have at least two years experience under and be employed by a state licensed plumber or plumbing contractor, or have equivalent qualifications acceptable to the *Town of Bunn*, and must hold a certificate of completion from an approved training program in the testing and repair of backflow prevention assemblies. Backflow assembly testers who hold a certificate of completion from an approved training program shall be required to successfully complete a practical examination administered by the *Town of Bunn* prior to conducting test and repair work on backflow prevention assemblies in the *Town of Bunn* water system. Backflow assembly testers who hold a certificate of completion from a nonapproved training program shall be required to successfully complete a written and practical examination administered by the *Town of Bunn* prior to conducting test and repair work on backflow prevention assemblies in the *Town of Bunn* water system.

BACKFLOW PREVENTION DEVICE-APPROVED The term "approved backflow prevention device" means a device used for isolation purposes that has been shown to meet the design and performance standards of the *American Society of Sanitary Engineers (ASSE)* and the *American Water Works Association (AWWA)*

BACK-PRESSURE BACKFLOW means any elevation in the consumer water system by pump, elevation of piping, or steam and/or air pressure, above the supply pressure at the point of delivery which would cause, or tend to cause, a reversal of the normal direction of flow.

BACK-SIPHONAGE BACKFLOW means a reversal of the normal flow direction in the pipeline due to a negative pressure (vacuum) being created in the supply line with the backflow source subject to atmospheric pressure.

CHECK VALVE-APPROVED The term "approved check valve" means a check valve that is drip-tight in the normal direction of flow when the inlet pressure is at least one psi and the outlet pressure is zero. The check valve shall permit no leakage in a direction reverse to the normal flow. The closure element (e.g., clapper, poppet, or other design) shall be internally loaded to promote rapid and positive closure. An approved check valve is only one component of an approved backflow prevention assembly, i.e., pressure vacuum breaker, double check valve assembly,

double check detector assembly, reduced pressure principle assembly, or reduced pressure detector assembly.

CONSUMER means any person, firm, or corporation using or receiving water from the *Town of Bunn* water system.

CONSUMER'S POTABLE WATER SYSTEM means that a portion of the privately owned potable water system lies between the point of delivery and point of use and/or isolation protection. This system will include all pipes, conduits, tanks, receptacles, fixtures, equipment, and appurtenances used to produce, convey, store, or use potable water.

CONSUMER'S WATER SYSTEM means any water system commencing at the point of delivery and continuing throughout the consumer's plumbing system located on the consumer's premises, whether supplied by public potable water or an auxiliary water supply. The system or systems may be either a potable water system or an industrial piping system.

CONTAINMENT means preventing the impairment of the public potable water supply by installing an approved backflow prevention assembly at the service connection.

CONTAMINATION means an impairment of the quality of the water, which creates a potential or actual hazard to public health by introducing hazardous or toxic substances or through the spread of disease by sewage, industrial fluids, or waste.

CROSS-CONNECTION means any unprotected actual or potential connection or structural arrangement between a public or a consumer's water system and any other source or system through which it is possible to introduce any contamination or pollution other than the intended potable water with which the system is supplied. Bypass arrangements, jumper connections, removable sections, swivel or change-over devices, and other temporary or permanent devices through which or because of which "backflow" can or may occur are considered cross-connections.

DOUBLE CHECK DETECTOR ASSEMBLY means a specially designed assembly composed of a line-size approved double-check valve assembly with a specific bypass water meter and a meter-sized approved double-check valve assembly. The meter shall register (in U.S. gallons or cubic feet) accurately for only very low rates of flow and shall show registration for all rates of flow. This assembly shall only be used to protect against a non-health hazard (i.e., pollutant).

DOUBLE-CHECK VALVE ASSEMBLY means an assembly composed of two independently acting, approved check valves, including tightly closing shutoff valves attached at each end of the assembly and fitted with properly located test cocks. This assembly shall only be used to protect against a non-health hazard (i.e., pollutant).

HAZARD-DEGREE OF The term "degree of hazard" is derived from the evaluation of conditions within a system that can be classified as either a "pollution" (non-health) or a "contamination" (health) hazard.

HAZARD-HEALTH The term "health hazard" means an actual or potential threat of contamination of a physical, hazardous, or toxic nature to the public or consumer's potable water system to such a degree or intensity that there would be a danger to health.

HAZARD-NON-HEALTH The term "non-health hazard" means an actual or potential threat to the quality of the public or the consumer's potable water system. A non-health hazard is one that, if introduced into the public water supply system, could be a nuisance to water customers but would not adversely affect human health.

HAZARD-POLLUTION The term "pollution hazard" means an actual or potential threat to the quality or the potability of the public or the consumer's potable water system, but which would not constitute a health or system hazard, as defined. The maximum degree or intensity of pollution to which the potable water system could be degraded under this definition would cause a nuisance or be aesthetically objectionable or could cause minor damage to the system or its appurtenances.

HEALTH AGENCY means the state department of environment and natural resources.

INDUSTRIAL FLUIDS means any fluid or solution that may be chemically, biologically, or otherwise contaminated or polluted in a form or concentration that would constitute a health or non-health hazard if introduced into a public or consumer potable water system. Such fluids may include, but are not limited to: process waters; chemicals in fluid form; acids and alkalis; oils, gases; etc.

INDUSTRIAL PIPING SYSTEM CONSUMER'S The term "consumer's industrial piping system" means any system used by the consumer for transmission of or to confine or store any fluid, solid or gaseous substance other than an approved water supply. Such a system would include all pipes, conduits, tanks, receptacles, fixtures, equipment, and appurtenances used to produce, convey, or store substances which are or may be polluted or contaminated.

ISOLATION means the act of confining a localized hazard within a consumer's water system by installing approved backflow prevention assemblies. Disclaimer: The *Town of Bunn* may make recommendations, upon facility inspection, regarding the usages of isolation devices/assemblies but does not assume or have responsibility whatsoever for such installations.

POINT OF DELIVERY generally means at the customer's property line, adjacent to the public street where the *Town of Bunn* mains are located, or at a point on the customer's property where the meter is located. The customer shall be responsible for all water piping and control devices located on the customer's side of the point of delivery.

POLLUTION means an impairment of the water quality to a degree that does not create an actual hazard to public health but adversely and unreasonably affects the aesthetic qualities of such waters for domestic use.

POTABLE WATER means water from any source which has been investigated by the state department of environment and natural resources and which has been approved for human consumption.

PUBLIC POTABLE WATER SYSTEM means any publicly or privately owned water system operated as a public utility, under a current state department of environment and natural resources permit, to supply water for public consumption or use. This system will include all sources, facilities, and appurtenances between the source and the point of delivery, such as valves, pumps,

pipes, conduits, tanks, receptacles, fixtures, equipment, and appurtenances used to produce, convey, treat, or store potable water for public consumption or use.

REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY means an assembly containing within its structure a minimum of two independently acting, approved check valves, together with a hydraulically operating, mechanically independent, pressure differential relief valve located between the check valves and at the same time below the first check valve. The first check valve reduces the supply pressure by a predetermined amount so that during normal flow and at the cessation of normal flow, the pressure between the checks is less than the supply pressure. In case of leakage of either check valve, the pressure differential relief valve shall operate by discharge to the atmosphere to maintain the pressure between the checks less than the supply pressure. The unit shall include tightly closing shutoff valves located at each end of the assembly, and each assembly shall be fitted with properly located test cocks. The assembly is designed to protect against a health hazard (i.e., contaminant).

REDUCED PRESSURE PRINCIPLE DETECTOR ASSEMBLY means a specially designed assembly composed of a line-size approved reduced pressure principle backflow prevention assembly with a specific bypass water meter and a meter-sized approved reduced pressure principle backflow prevention assembly. The meter shall register, in U.S. gallons or cubic feet, accurately for only very low rates of flow and shall show registration for all rates of flow. This assembly shall be used to protect against a health hazard (i.e., contaminant).

SERVICE CONNECTIONS means the terminal end of a service connection from the public potable water system, i.e., where the *Town of Bunn* loses jurisdiction and sanitary control over the water at its point of delivery to the consumer's water system.

VACUUM BREAKER-ATMOSPHERIC TYPE The term "atmospheric vacuum breaker," also known as the "non-pressure type vacuum breaker," means a device containing a float-check, a check seat, and an air inlet port. The flow of water into the body causes the float to close the air inlet port. When the flow of water stops, the float falls and forms a check valve against the back-siphonage and, at the same time, opens the air inlet port to allow air to enter and satisfy the vacuum. Shutoff valves downstream of AVBs are not allowed. AVBs must always be installed at a minimum of 6" above the highest outlet. An atmospheric vacuum breaker is designed to protect against health hazards, isolation protection only, under a back-siphonage condition only.

VACUUM BREAKER-PRESSURE TYPE The term "pressure vacuum breaker" means an assembly containing an independently operating internally loaded check valve and an independently operating loaded air inlet valve located on the discharge side of the check valve. The assembly is to be equipped with properly located test cocks and tightly closing shutoff valves attached at each end of the assembly. PVBs must always be installed at a minimum of 12" above the highest outlet. This assembly is designed to protect against a health hazard (i.e., contaminant) under a back-siphonage condition only.

WATER PURVEYOR *Water purveyor* means the owner or operator of a public potable water system, providing an approved water supply to the public.

WATER-SUPPLY-APPROVED The term "approved water supply" means any public potable water supply which has been investigated and approved by the permit. In determining what

constitutes an approved water supply, the state department of environment and natural resources has reserved the final judgment as to its safety and potability.

WATER SUPPLY-AUXILIARY The term "auxiliary water supply" means any water supply on or available to the premises other than the purveyor's approved public potable water supply. These auxiliary waters may include water from another purveyor's public potable water supply or any natural source such as a well, spring, river, stream, etc., "used water," or industrial fluids. These waters may be polluted, contaminated, or objectionable and constitute an unacceptable water source over which the water purveyor does not have sanitary control.

WATER SUPPLY-UNAPPROVED The term "unapproved water supply" means a water supply that has not been approved for human consumption by the state department of environment and natural resources.

WATER-USED The term "used water" means any water supplied by a water purveyor from a public water system to a consumer's water system after it has passed through the point of delivery and is no longer under the control of the water purveyor.

§ 56.05 RIGHT OF ENTRY

- (a) Authorized representatives from the *Town of Bunn* shall have the right to enter, upon presentation of proper credentials and identification, any building, structure, or premises during normal business hours or at any time during the event of an emergency, to perform any duty imposed by this article. Those duties may include sampling and testing of water or inspections and observations of all piping systems connected to the public water supply. Where a user has security measures in force that would require proper identification and clearance before entry into their premises, the user shall make necessary arrangements with the security guards so that upon presentation of suitable identification, *Town of Bunn* personnel will be permitted to enter, without delay, to perform their specific responsibilities. Refusal to allow entry for these purposes may result in the discontinuance of water service.
- (b) On request, the consumer shall furnish to the commission any pertinent information regarding the water supply system on such property where cross connections and backflow are deemed possible.

SECTION 06 ELIMINATION OF CROSS-CONNECTIONS; DEGREE OF HAZARD

- (a) When cross-connections are found to exist, the owner, his agent, occupant, or tenant will be notified in writing to disconnect the cross-connection within the time limit established by the *Town of Bunn*. The degree of protection required and the maximum time allowed for compliance will be based on the potential degree of hazard to the public water supply system. The maximum time limits are as follows:
 - (1) Cross connections with private wells or other auxiliary water supplies--immediate disconnection.

- (2) All facilities which pose a health hazard to the potable water system must have a containment assembly in the form of a reduced pressure principle backflow prevention assembly within 60 days.
 - (3) All industrial and commercial facilities not identified as a health hazard shall be considered non-health hazard facilities. All non-health hazard facilities must install, as a minimum containment assembly, a double-check valve assembly within 90 days
 - (4) If in the judgment of the *Town of Bunn*, an imminent health hazard exists, water service to the building or premises where a cross-connection exists may be terminated unless an air gap is immediately provided or the cross-connection is immediately eliminated.
 - (5) Based upon a recommendation from the *Town of Bunn*, the consumer is responsible for installing sufficient internal isolation backflow prevention assemblies and/or methods (i.e., air gap, pressure vacuum breakers, reduced pressure principle backflow prevention assembly, double-check valve assembly).
 - (6) Water mains served by the *Town of Bunn* but not maintained by the *Town of Bunn* should be considered cross-connections, with the degree of hazard to be determined by the *Town of Bunn*. The degree of protection shall be based upon the degree of hazard, as determined by the *Town of Bunn*.
 - (7) In the event that a *Town of Bunn* cross connection control inspector does not have sufficient access to every portion of a private water system (e.g., classified research and development facilities; federal government property) to allow a complete evaluation of the degree of hazard associated with such private water systems, an approved reduced pressure principle assembly shall be required as a minimum of protection.
- (b) No person shall fill special use tanks or tankers containing pesticides, fertilizers, other toxic chemicals, or their residues from the public water system except at a location equipped with an air gap or an approved reduced pressure principle backflow prevention assembly properly installed on the public water supply.

SECTION 07 INSTALLATION OF ASSEMBLIES

- (a) All backflow prevention assemblies shall be installed in accordance with the specifications furnished by The *Town of Bunn* and/or the manufacturer's installation instructions and/or in the latest edition of the state building code, whichever is most restrictive. All assemblies installed above-ground outside must be protected from freezing with an above-ground enclosure that meets the *ASSE 1060* standard. If the assembly is installed outside and intended for commercial, domestic water use, a heat source must be readily available at the assembly.

- (b) All new construction plans and specifications, when required by the state building code and the state department of environment and natural resources, shall be made available to the *Town of Bunn* for review and approval and to determine the degree of hazard.
- (c) Ownership, testing, and assembly maintenance shall be the customer's responsibility.
- (d) All double-check valve assemblies must be installed in accordance with detailed specifications provided by the *Town of Bunn*. Double-check valve assemblies may be installed in a vertical position provided they have been specifically approved by the manufacturer and with prior approval from the *Town of Bunn Public Works Department*, provided the water flow is in an upward direction. All double-check valve assemblies 2 ½" and larger must be installed above ground covered by an above-ground enclosure that meets the *ASSE 1060* standard if they are installed outside. Inside installations must meet *North Carolina Plumbing Code*.
- (e) Reduced pressure principle assemblies must be installed in a horizontal position and in a location where no portion of the assembly can become submerged in any substance under any circumstances. The further most bottom portion of the body must be at a minimum of 12" above grade, no more than 4'. Pit and/or below-grade installations are prohibited.
- (f) The installation of a backflow prevention assembly that is not approved must be replaced with an approved backflow prevention assembly.
- (g) The installer is responsible for making sure a backflow prevention assembly is working properly upon installation and is required to furnish the following information to the *Town of Bunn Public Works Department* within 15 days after a reduced pressure principle backflow preventer (RP), double check valve assembly (DCVA), pressure vacuum breaker (PVB), double check detector assembly (DCDA), or reduced pressure principle detector assembly (RPDA) is installed:
 - (1) Service address where the assembly is located.
 - (2) Owner and address, if different from service address.
 - (3) Description of assembly's location.
 - (4) Date of installation.
 - (5) Installer, include name, plumbing company represented, plumber's license number, and project permit number.
 - (6) Type of assembly, size of the assembly.
 - (7) Manufacturer, model number, and serial number.
 - (8) Test results/report.
- (h) When it is not possible to interrupt water service, provisions shall be made for a parallel installation of backflow prevention assemblies. The *Town of Bunn* will not accept an unprotected bypass around a backflow preventer when the assembly requires testing, repair, or replacement.
- (i) The consumer shall, upon notification, install the appropriate containment assembly not to exceed the following time frame:

Health hazard 60 days
Non-health hazard . . . 90 days

- (j) Following installation, all reduced pressure principle backflow preventers (RP), double check valve assemblies (DCVA), pressure vacuum breakers (PVB), double check detector assemblies (DCDA), or reduced pressure principle detector assemblies (RPDA) are required to be tested by a certified backflow prevention assembly tester within ten days.

SECTION 08 TESTING AND REPAIR OF ASSEMBLIES

- (a) Testing of backflow prevention assemblies shall be made by a certified backflow prevention assembly tester or may be contracted out to the *Town of Bunn Public Works Department* at the customer's expense. Such tests will be conducted upon installation and annually thereafter or at a frequency established by the *Town of Bunn* regulations. A record of all testing and repairs is to be retained by the customer. Copies of the records must be provided to the *Town of Bunn* cross-connection control department within ten business days after any testing and/or repair work is completed.
- (b) Any time that repairs to backflow prevention assemblies are deemed necessary, whether through annual or required testing or routine inspection by the owner or by the *Town of Bunn*, these repairs must be completed within a specified time in accordance with the degree of hazard. In no case shall this time period exceed:
 - (1) Health hazard facilities 14 days
 - (2) Non-health hazard facilities . . . 21 days
- (c) All backflow prevention assemblies with test cocks must be tested annually or at the frequency established by the *Town of Bunn* regulations. Testing requires a water shutdown, usually lasting five to 20 minutes. For facilities that require an uninterrupted supply of water, and when it is not possible to provide water service from two separate meters, provisions shall be made for a parallel installation of backflow prevention assemblies.
- (d) All certified backflow prevention assembly testers must obtain and employ backflow prevention assembly test equipment that has been evaluated and/or approved by the *Town of Bunn*. All test equipment shall be registered with the *Town of Bunn Public Works Department*. All test equipment shall be checked for accuracy annually, at a minimum, calibrated, if necessary, and certified to the *Town of Bunn* as to such accuracy/calibration, employing a calibration method acceptable to the *Town of Bunn*. §56.03 (e)
- (e) It shall be unlawful for any customer or certified tester to submit any record to the Town of Bunn which is false or incomplete in any material respect. It shall be unlawful for any customer or certified tester to fail to submit to the *Town of Bunn* any record which is required by this article. Such violations may result in any of the enforcement actions outlined in § 56.12 *Enforcement*

SECTION 09 FACILITIES REQUIRING PROTECTION

- (a) Approved backflow prevention assemblies shall be installed on the service line to any premises that the *Town of Bunn* has identified as having a potential for backflow.
- (b) The *Town of Bunn* has identified the following types of facilities or services as having a potential for backflow of nonpotable water into the public water supply system. Therefore, an approved backflow prevention assembly will be required on all such services according to the degree of hazard present. Other types of facilities or services not listed below may also be required to install approved backflow prevention assemblies if determined necessary by the *Town of Bunn*. As a minimum requirement, all commercial services will be required to install a double-check valve assembly unless otherwise listed in this subsection.

DCVA = Double check valve assembly
RP = Reduced pressure principle assembly
DCDA = Double check detector assembly
RPDA = Reduced pressure detector assembly
AG = Air gap
PVB = Pressure vacuum breaker

- (1) Aircraft and missile plants: RP
- (2) Automotive services stations, dealerships, etc.
 - a. No health hazard: DCVA
 - b. Health hazard: RP
- (3) Automotive plants: RP
- (4) Auxiliary water systems:
 - a. Approved public/private water supply: DCVA
 - b. Unapproved public/private water supply: AG
 - c. Used water and industrial fluids: RP
- (5) Bakeries:
 - a. No health hazard: DCVA
 - b. Health hazard: RP
- (6) Beauty shops/barber shops:
 - a. No health hazard: DCVA
 - b. Health hazard: RP
- (7) Beverage bottling plants: RP

- (8) Breweries: RP
- (9) Buildings--Hotels, apartment houses, public and private buildings, or other structures having unprotected cross-connections.
 - a. (Under five stories) no health hazard: DCVA
 - b. (Under five stories) health hazard: RP
 - c. (Over five stories) all: RP
- (10) Canneries, packing houses, and rendering plants: RP
- (11) Chemical plants--Manufacturing, processing, compounding, or treatment: RP
- (12) Chemically contaminated water systems: RP
- (13) Commercial car-wash facilities: RP
- (14) Commercial greenhouses: RP
- (15) Commercial sales establishments (department stores, malls, etc.)
 - a. No health hazard: DCVA
 - b. Health hazard: RP
- (16) Concrete/asphalt plants: RP
- (17) Dairies and cold storage plants: RP
- (18) Dye works: RP
- (19) Film laboratories: RP
- (20) Fire systems:
 - a. Systems three-fourths inch to two inches:
 - 1. No health hazard: DCVA
 - 2. Health hazard: (booster pumps, foam, antifreeze solution, etc.): RP
 - b. Systems 2 1/2 inches to ten inches or larger:
 - 1. No health hazard: DCDA
 - 2. Health hazard (booster pumps, foam, antifreeze solution, etc.): RPDA
- (21) Hospitals, medical buildings, sanitariums, morgues, mortuaries, autopsy facilities, nursing and convalescent homes, medical clinics, and veterinary hospitals: RP

- (22) Industrial facilities:
 - a. No health hazard: DCVA
 - b. Health hazard: RP
- (23) Laundries:
 - a. No health hazard: DCVA
 - b. Health hazard: (i.e., dry cleaners): RP
- (24) Lawn irrigation systems (split taps): RP
- (25) Metal manufacturing, cleaning, processing, and fabricating plants: RP
- (26) Mobile home parks:
 - a. No health hazard: DCVA
 - b. Health hazard: RP
- (27) Oil and gas production, storage or transmission properties: RP
- (28) Paper and paper products plants: RP
- (29) Pest control (exterminating and fumigating): RP
- (30) Plating plants: RP
- (31) Power plants: RP
- (32) Radioactive materials or substances plants or facilities handling: RP
- (33) Restaurants:
 - a. No health hazard: DCVA
 - b. Health hazard: RP
- (34) Restricted, classified, or other closed facilities: RP
- (35) Rubber plants (natural or synthetic): RP
- (36) Sand and gravel plants: RP
- (37) Schools and colleges: RP
- (38) Sewage and storm drain facilities: RP
- (39) Swimming pools: RP

(40) Waterfront facilities and industries: RP

- (c) All assemblies and installations shall be subject to inspection and approval by the *Town of Bunn*.

SECTION 10 CONNECTIONS WITH UNAPPROVED SOURCES OF SUPPLY

- (a) No person shall connect or cause to be connected any supply of water not approved by the *North Carolina Department of Environmental Quality* to the water system supplied by the *Town of Bunn*. Any such connections allowed by the *Town of Bunn* must be in conformance with the backflow prevention requirements of this article.
- (b) In the event of contamination or pollution of a public or consumer potable water system, the consumer shall notify the *Town of Bunn* immediately in order that appropriate measures may be taken to overcome and eliminate the contamination or pollution.

SECTION 11 FIRE PROTECTION SYSTEMS

- (a) All connections for fire protection systems connected with the public water system, two inches and smaller, shall be protected with an approved double-check valve assembly as a minimum requirement. An approved reduced pressure principle assembly shall protect all fire systems using toxic additives or booster pumps at the main service connection.
- (b) All connections for fire protection systems connected with the public water system greater than two inches shall be protected with an approved double-check detector assembly as a minimum requirement. All fire protection systems using toxic or hazardous additives or booster pumps shall be protected by an approved reduced pressure principle detector assembly at the main service connection.
- (c) All existing backflow prevention assemblies 2 1/2 inches and larger installed on fire protection systems that were initially approved by the *Town of Bunn* shall be allowed to remain on the premises as long as they are properly maintained, tested, and repaired as required by this article. If, however, the existing assembly must be replaced once it can no longer be repaired, or in the event of proven water theft through an unmetered source, the consumer shall be required to install an approved double-check detector assembly or reduced pressure principle detector assembly as required by *§56-09 Facilities Requiring Protection*

SECTION 12 ENFORCEMENT

- (a) The owner, manager, supervisor, or person in charge of any installation found not to be in compliance with the provisions of this article shall be notified in writing with regard to the corrective action to be taken. The time for compliance shall be in accordance with *§56.12 (g) (1-4)*.
- (b) The owner, manager, supervisor, or person in charge of any installation which remains in noncompliance after the time prescribed in the initial notification, as outlined in section *§56.12 (g) (1-4)*, shall be considered in violation of this article and may be issued a civil

citation by the *Town of Bunn*. The citation shall specify the nature of the violation and the provision of this article violated and further notify the offender that the civil penalty for such violation is as set forth in subsection (c) of this section and is to be paid to the *Town of Bunn* within 30 days. If the penalty prescribed in this subsection is not paid within the time allowed, the *Town of Bunn* may initiate a civil action in the nature of a debt and recover the sums set forth in subsection (c) of this section plus the cost of the action.

- (c) Any offender who shall continue any violation beyond the time limit provided for in the aforementioned notification shall be subject to a civil penalty of up to \$1,000.00 per violation. Each day in which a violation of any provision of this article shall occur or continue shall constitute a separate and distinct offense.
- (d) If in the judgment of the *Town of Bunn*, any owner, manager, supervisor, or person in charge of any installation found to be in noncompliance with the provisions of this article neglects his responsibility to correct any violation, such neglect may result in discontinuance of water service until compliance is achieved.
- (e) Failure of a customer or certified tester to submit any record required by this article or the submission of falsified reports/records may result in a civil penalty of up to \$1,000.00 per violation. If a certified backflow prevention assembly tester submits falsified records to the *Town of Bunn*, the *Town of Bunn* shall take the necessary actions to revoke certification to test backflow prevention assemblies within the potable water system for a time period not to exceed one year. The tester will then be required to complete an approved certification course to acquire a new certification. Falsification made to records/reports after becoming re-certified shall result in the permanent revocation of backflow testing certification, in addition to a civil penalty as provided for in this subsection.
- (f) Enforcement of this program shall be administered by the *Public Works Director of the Town of Bunn* or his authorized representative.
- (g) Requests for an extension of time shall be made in writing to the *Public Works Director of the Town of Bunn* or his authorized representative. All other appeals shall be made in accordance with the following procedures:
 - (1) Adjudicatory hearings. A customer assessed a civil penalty under this section shall have the right to an adjudicatory hearing before a hearing officer designated by the *Public Works Director of the Town of Bunn* upon making written demand, identifying the specific issues to be contended, to the Public Works Director of the *Town of Bunn* within 30 days following notice of a final decision to assess a civil penalty. Unless such demand is made within the time specified in this subsection, the decision on the civil penalty assessment shall be final and binding.
 - (2) Appeal hearings. Any decision of the *Town of Bunn* hearing officer made as a result of an adjudicatory hearing held under subsection (g)(1) of this section may be appealed by any party to the *Town of Bunn Board of Aldermen/Alderwomen* upon filing a written demand within ten days of receipt of notice of the decision. Hearings held under this section shall be conducted in accordance with the *Town of Bunn* hearing procedures. Failure to make written demand within the time specified in this subsection shall bar further appeal. The

Town of Bunn shall make a decision on the appeal within 90 days of the date the appeal was filed and shall transmit a written copy of its decision by registered or certified mail.

- (3) Official record. When a final decision is issued under §56-12 (g)(2) of this section, the *Town of Bunn* shall prepare an official record of the case that includes the following:
- a. All notices, motions, and other like pleadings;
 - b. A copy of all documentary evidence introduced;
 - c. A certified transcript of all testimony taken if the testimony is transcribed. If testimony is taken and not transcribed, then a narrative summary of any testimony taken;
 - d. A copy of the final decision of the *Town of Bunn*.
- (4) Judicial review. Any customer against whom a final decision of the *Town of Bunn* is entered, pursuant to the hearing procedure under subsection §56-12 (g)(2) of this section, may appeal the order or decision by filing a written petition for judicial review within 30 days after receipt of notice by certified mail of the order or decision to the general court of justice of the county or of the county where the order or decision is effective, along with a copy to the *Town of Bunn*. Within 30 days after receipt of the copy of the petition of judicial review, the *Town of Bunn* shall transmit to the reviewing court the original or a certified copy of the official record, as outlined in subsection (g)(3) of this section.

SECTION 13 SEVERABILITY

If any section, subsection, sentence, or clause of this article is adjudged to be unconstitutional or otherwise invalid, such adjudication shall not affect the validity of the remaining portion of this article. It is hereby declared that this article would have been passed, and each section, sentence, or clause thereof, irrespective of the fact that any one or more sections, subsections, sentences, or clauses might be adjudged to be unconstitutional, for any other reason invalid.

SECTION 14 APPROVED BACKFLOW PREVENTER LIST

BACKFLOW PREVENTER APPROVAL LIST

<u>TYPE OF PROTECTION</u>	<u>DEVICE/ASSEMBLY –MFG.</u>	<u>BFP SIZE</u>
RESIDENTIAL:		
<u>Dual Check Valves/Resettlers</u>	FEBCO 810	3/4”-1”
	WILKINS #700 & #705	
&	WILKINS 950LM & 950LF	
<u>METER WITH</u>	WATTS #7	
<u>DUAL CHECK</u>	CONBRACO 40-300 & 4P-300	
	FORD ANGLE CHECK	
	FORD HHC	

RESETTERS & RETROSETTERS

A. Y. McDONALD 4135(11-3)series
A. Y. McDONALD 4135(12-3) series
10 MSR A.Y. McDONALD
FORD STYLE C
WATTS WES2-7

NEPTUNE TECHNOLOGIES DUAL CHECK + T-10 METER

NON-RESIDENTIAL:

<u>Continuous Pressure Backflow Preventer</u>	CONBRACO 40-400 WATTS 9DM2 & M3 FEBCO 815	1/2" & 3/4"
<u>Low Hazard</u>	WILKINS 750	
<u>Carbonated Beverage Machine &</u>	WATTS SD-2-MF & WATTS SD-3-MF	1/4" & 3/8"
<u>Ice Machine</u>	CONBRACO 4C-101-1 &	1/4" & 3/8"
<u>Low to High Hazard</u>	CONBRACO 4C-102-1	
Laboratory Faucet Vacuum Breaker <u>All High Hazard</u>	CONBRACO 38-500 WATTS NLF9 WATTS N9	1/4" & 3/4" 3/8" Only 1/4" & 3/4"

TYPE OF PROTECTION **DEVICE/ASSEMBLY-MFG.** **BFP SIZE**

<u>Hose Bibb Vacuum Breaker</u>	CONBRACO 38-304, 404 & 38P & 38-304-02	
<u>Low to High Hazard</u>	WATTS 8, S8C,8A,8P,NF8 WATTS FROST PROOF FAUCETS WILKINS BFP-8 & BFP-8F ALL WOODFORD MODELS W/BFP	3/4" HOSE 3/4" HOSE 3/4" HOSE
(Residential & Commercial)		
<u>Atmospheric</u>	AMES A100	3/4"-2"
<u>Vacuum</u>	CHAMPION BRASS 162 & 466P	3/4"-2"
<u>Breaker</u>	CONBRACO 38-100	1/4"-2"
	CONBRACO 38-200	1/4"-3/4"
	FEBCO 710A/715A	1/2"-2"
	WATTS 288AM3 & M5	3/4"-2"
<u>Low to High Hazard</u>	WILKINS 35 SERIES	1/4"-2"

<u>Pressure</u>	AMES A200	¾"-2"
<u>Vacuum</u>	CONBRACO 40-503-508	½"-2"
<u>Breaker</u>	FEBCO 765	½"-1"
	FLOMATIC PVB	¾"-1"
	WATTS 800M4QT	½"-2"
<u>Low to High Hazard</u>	WILKINS 420 & 720A	½"-2"

<u>Spill Resistant</u>	CONBRACO 4W-500	¼"-½"
<u>Vacuum Breaker</u>	WATTS 008PCQT	½" & 1"

DOUBLE-CHECK VALVE ASSEMBLIES

<u>TYPE OF PROTECTION</u>	<u>ASSEMBLY-MFG.</u>	<u>BFP SIZE</u>
Nonresidential & Domestic	AMES 2000B & M3(¾" Only)	½"-2"
	AMES 2000CIV	4"-10"
	AMES 2000SE	2 ½" & 6-8"
	AMES 2000SSM	4" & 6"
	AMES 2000SS	2 ½"-8"
<u>Double Check Valve</u> <u>Assemblies</u> <u>Low Hazard</u>	AMES 200	2 ½"-6"
	AMES COLT 200a & Na	2½"-6"
	AMES MAXIM 200a & Na	2 ½"-4"

CONBRACO 40-103-109(02)Standard & Top Entry	½"-2 ½"
This Includes T2 & TC2	
CONBRACO 40-100-10G(02-06)	3"-10"
CONBRACO 1/2DC & 2 1/2-10 DC	½" & 2 ½"-10"

(N & Z Configurations)	FEBCO 805Y	¾"-2"
	FEBCO 805YD	2 ½"-10"
	FEBCO 850U & 850F (¾" Only)	½"-2"
	FEBCO 850	½"-8"
	FEBCO 870	2 ½"-10"
	FEBCO 870V	2 ½"-10"

FLOMATIC DCV	¾"-6"
FLOMATIC DCVE	¾"-2"

WATTS 007	2½"-3"
WATTS 007M3QT (All Variations)	¾"-2"
WATTS 709	2 ½"-10"
WATTS 757	2 ½"-4"
WATTS 767	2 ½"-3"
WATTS 774	2 ½"-10"
WATTS 775QT	½"-1 ½"

WILKINS 350 & 350 A & G	2 1/2" & 10"
WILKINS 450 & 450G	2 1/2" & 8"
WILKINS 950 & 950 A & G	3/4"-10"
WILKINS 950XL;XLT; XLU	3/4"-2"

REDUCED PRESSURE PRINCIPLE ASSEMBLIES

<u>TYPE OF PROTECTION</u>	<u>ASSEMBLY</u>	<u>BFP SIZE</u>	
<u>Reduced Pressure Principle Zone Assembly</u>	AMES 4000B, 4000BM3	1/2"-2"	
	AMES 4000CIV	2 1/2"-10"	
	AMES 4000SS	2 1/2"-6"	
	AMES COLT 400	2 1/2"-6"	
	AMES MAXIM 400	2 1/2"-4"	
<u>High Hazard(RP)</u> (N & Z Configurations)	CONBRACO 40-200-02, 03 & 05	3"	
	CONBRACO 40-201-208(including 99T Models)	1/4"-2"	
	CONBRACO 40-204 A2U- 40-208 A2U	3/4"-2"	
	CONBRACO 40-209-20G (02,03)	2 1/2"-10"	
	FEBCO 825 Y & YA	3/4"-2"	
	FEBCO 825 YD	2 1/2"-10"	
	FEBCO 860	1/2"-8"	
	FEBCO 860U	1/2"-2"	
	FEBCO 880	2 1/2"- 10"	
	(N & Z Configurations)	FEBCO 880V	2 1/2"-10"
	FLOMATIC RPZ	3/4"-8"	
	FLOMATIC RPZ II	1/2"-3/4"	
	WATTS 009M3QT(Including U Models)	3/4"-2"	
	WATTS 009	2 1/2"-6"	
	WATTS 909M1QT (Including U Models)	3/4"-2"	
	WATTS 909M1	1 1/4"-10"	
	WATTS 957	2 1/2"-4"	
WATTS 967	2 1/2"-3"		
WATTS 994	2 1/2"-6"		
WATTS 995	1/2"-1 1/2"		
WILKINS 375 & 375A & G	2 1/2"-8"		
WILKINS 475 V & G	2 1/2"& 8"		
WILKINS 975	3/4"-10"		
WILKINS 975XL(ALL VARIATIONS)	1/4"-2"		

LOW HAZARD

FIRE SPRINKLER SYSTEMS BACKFLOW PREVENTERS

<u>TYPE OF PROTECTION</u>	<u>ASSEMBLY</u>	<u>BFP SIZE</u>
	AMES 2000B*	1/2"-2"

FIRE LINES (SPRINKLER SYSTEMS) <u>Double Check</u> <u>Valve Assembly</u> (DCVA)	AMES 3000SE AMES 3000SS AMES 3000CIV AMES 3000B AMES COLT 300a AMES MAXIM 300a	2 ½" & 6-8" 2-½"-10" 4"-10" 2" 2 ½"-6" 2 ½"-4"
<u>Low Hazard</u> & <u>Double Detector</u> <u>Check Valve Assembly</u> (DDCVA)	CONBRACO 40-107-108* CONBRACO 40-600-60G(03) CONBRACO 2 ½-10DCDA	1 ½"-2" 3"-10" 2 ½"-10"
(N & Z Configurations)	FEBCO 805Y * FEBCO 806YD FEBCO 850* FEBCO 856 FEBCO 876 FEBCO 876V WATTS 007M3QT* WATTS 007DCDA WATTS 709DCDA WATTS 757DCDA WATTS 767DCDA WATTS 774 WATTS 775QT WILKINS 350DA WILKINS 350DAG WILKINS 450DA & 450DAG WILKINS 950XL* WILKINS 950DA & 950DAG(4" & 6") <u>{*13D & 13R Fire sprinkler Systems}</u>	1 ½"-2" 3"-10" ½"-2" 2 ½"-8" 2 ½"-10" 2 ½"-10 1 ½" & 2" 2"-6" 3"-10" 2 ½"-6" 2 ½"-4" 2 ½"-10" ½"-2" 2 ½"-10" 4"-8" (4" & 6") 4"-10" 1 ½", 2" 2 ½"-10"

HIGH HAZARD
FIRE SPRINKLER SYSTEMS BACKFLOW ASEMBLIES

<u>TYPE OF PROTECTION</u>	<u>ASSEMBLY</u>	<u>BFP SIZE</u>
FIRE LINES (SPRINKLER SYSTEMS)	AMES 4000B** AMES 5000 AMES 5000CIV	1 ½"-2" 4"-10" 2 ½"-10"

High Hazard

Reduced Pressure Principle
Zone Detector Assembly

(RPDA) &	CONBRACO 40-207-208** CONBRACO 40-700-70G(C3) N	1 ½" & 2" 3"-10"
	FEBCO 825Y** FEBCO 826YD	1 ½"-2" 2 ½"-10"

Reduced Pressure Principle
Zone Assembly

(RP)

WATTS 009M3QT** 1 ½”& 2”
WATTS 909 RPDA 2 ½”-10”

WILKINS 375DA;375DAG;375DAP 2 ½”-8”
WILKINS 475DA 4”-8”
WILKINS 975XL 1 ½”-2”
WILKINS 975DA & DAG 2 ½”-10”

{Note: For 13R & 13D Systems and for isolation of Freeze Protected Sections of Regular Fire Sprinkler Systems}**

APPROVED DOUBLE CHECK VALVE ASSEMBLIES & DOUBLE DETECTOR CHECK VALVE ASSEMBLIES FOR (Vertical Installation)INLET ON THE BOTTOM UNLESS OTHERWISE SPECIFIED

TYPE OF PROTECTION

ASSEMBLY

BFP SIZE

Low Hazard Domestic DCVA

	AMES 2000B	½-2”
	AMES 2000CIV	4”-10”
	AMES 2000SS & SE	2 ½”-8”
	AMES COLT 200a {Vertical Up & Down}	2 ½”-4”
	AMES MAXIM 200a {Vertical Up & Down}	2 ½”-3”
	CONBRACO 1/2DC & 2 ½- 6DC	2 ½”-6”
	CONBRACO 2 ½ DC-10DC{Vertical Up & Down}	2 ½”-8”
	FEBCO 805YB	¾”
	FEBCO 850{Vertical Up & Down}	½”-2”
	FEBCO 850	2 ½”-8”
	WATTS 007	2½”& 3”
	WATTS 007QTM3	½”-2”
	WATTS 709	4”-10”
	WATTS 775{Vertical Up & Down}	½”-1 ½”
	WILKINS 350 & 350A & G	2 ½” & 8”
	WILKINS 950XL	¾”
	WILKINS 950	4”-8”

LOW HAZARD FIRE LINES DDCVA

AMES 3000B	2”
AMES 3000 SS, SE & CIV	4”-10”
AMES COLT 300a	2 ½”-6”
AMES MAXIM 300a	2 ½”-4”
CONBRACO 2 1/2DCDA-8DCDA	2 ½”-8”
FEBCO 856	4”-8”
WATTS 007DCDA	2” & 2 1/2”
WATTS 709DCDA	3”-10”
WATTS 757 & 767(2 ½”-4”)	2 ½”-6”
WILKINS 350DA &350DAG	4”- 10”

Note: All large body assemblies (2 ½"-10") shall be fusion bonded epoxy coated ductile iron or be stainless steel. All shut-off valves on large assemblies shall be fusion-bonded epoxy coated and have a resilient wedge "gate." All shut-off valves on small assemblies (1/4"-2") shall be a resilient seat full port quarter turn ball valve with a blow-out proof stem with a pressure rating of 400psi W.O.G.

Fireline assemblies shall have OS&Y shut-off valves.

Insulated Above Ground Enclosures

Approval List

Manufacturer

Model Numbers

Fiberglass Models

HB .75 through HB 10FE

EZ.75; EZ 1 & EZ 2 Hot Box

HB 4N through HB 10E

HB 3000 through HB5000

Aluminum Models

Pressure Vacuum Breaker Models

HPVB-1 through HPVB-2

Hot Rok Models

GHR .75 through GHR 4FE

Poly Rok Model

PHR-1

Aluminum Models

Safe-T-Cover

By Hydrocowl

100S Series through 1000DS Series

Fiberglass Models

130D-FG through 835D-FG

MUST BE ASSE 1060 APPROVED

Aluminum Models

WS-1S through WS-2NSNY-FM

WS-2 through WS-10-OSY-S

WS-4NRS through WS-10 FM-OSY

Water Safe

Fiberglass Only

BF Products, Inc. Model# 270PD, 370PD, 640APD, 800APD, 950APD, 1150APD