

Summary of Proposed Changes to Gwinnett County Stormwater Pipe Standards

Inside ROW

1. All pipes under roads will be RCP. Pipes not under roads, but in the ROW (longitudinal), may be RCP, HDPE or Aluminum Alloy. Driveway pipes in the ROW may be any of the approved pipe materials.
2. RCP, Al Alloy or HDPE will be required to the first structure outside of the ROW.

Outside ROW

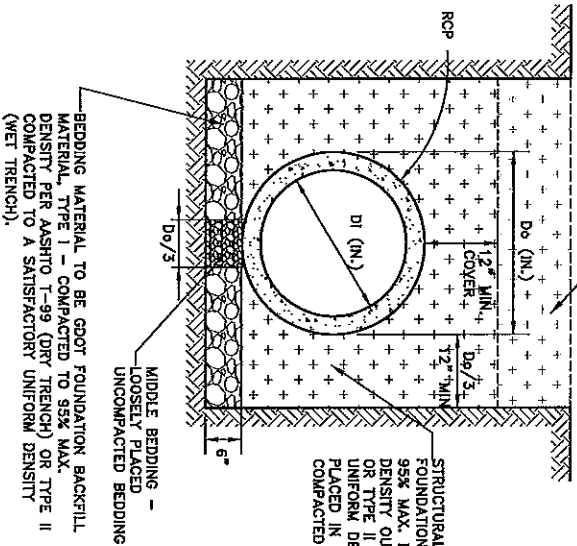
3. With regard to lateral systems:
 - a. ASP Type II/Polymer pre-coat pipes will not be installed in close proximity to any building. "Close Proximity" is defined as the distance equal to the pipe depth + 5' + the pipe Radius, measured perpendicular between the pipe centerline and the structure at their closest points. Maximum pipe depths to maintain structural stability and minimum pipe covers still apply.
 - b. Outside the Close Proximity Area, ASP Type II and Polymer pre-coat may only be used when the pH and resistivity of the soil and water (if present) falls within these measured parameters:
 - i. pH: Between 5.05 and 9
 - ii. resistivity: > 1,500 Ohm-cm
4. Steel pipe (ASP Type II and Polymer pre-coat) will not be used to carry perennial streams.
5. Amend and simplify pipe bedding and backfill requirements:
 - a. See amended bedding detail – Standard Drawing 710 (1), (2) and (3). Now meets ~~manufacturer Georgia DOT specs.~~
 - b. Clarified type of bedding to be used as ~~GAB or Crusher Run~~ aligns with Georgia DOT specifications.
 - c. Backfill material to be Type I or Type II in accordance with GDOT standard specs.
6. ~~Corrugated aluminum alloy structural plate pipe, pipe arches and arches shall not be used. Bottomless culverts to be concrete.~~ Corrugated aluminum alloy structural plate pipe will be allowed under the following circumstances:
 - a. Designed and stamped by a PE
 - 6.b. Designer, installer and manufacturer will be required to certify compliance with AASHTO M219 and applicable GDOT specifications.
7. ~~Bypass Pass Through~~ lines that receive offsite water from other developments or public land must be constructed of RCP.

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STANDARD PIPE BEDDING AND BACKFILL DETAIL

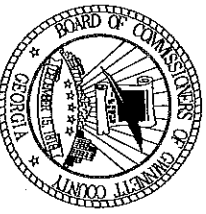
RCP

FINAL BACKFILL MATERIAL TO BE GOOD FOUNDATION BACKFILL TYPE I COMPACTED TO 95% MAX. DENSITY IN R/W AND 90% MAX. DENSITY OUTSIDE OF R/W PER AASHTO T-99 OR TYPE II COMPACTED TO SATISFACTORY UNIFORM DENSITY.



STANDARD BEDDING AND BACKFILL DETAIL
REINFORCED CONCRETE PIPE

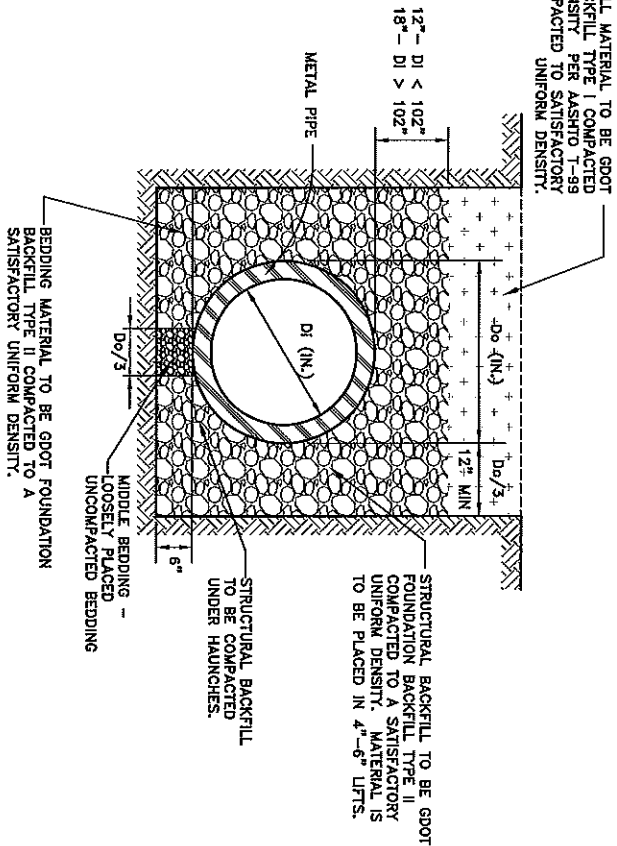
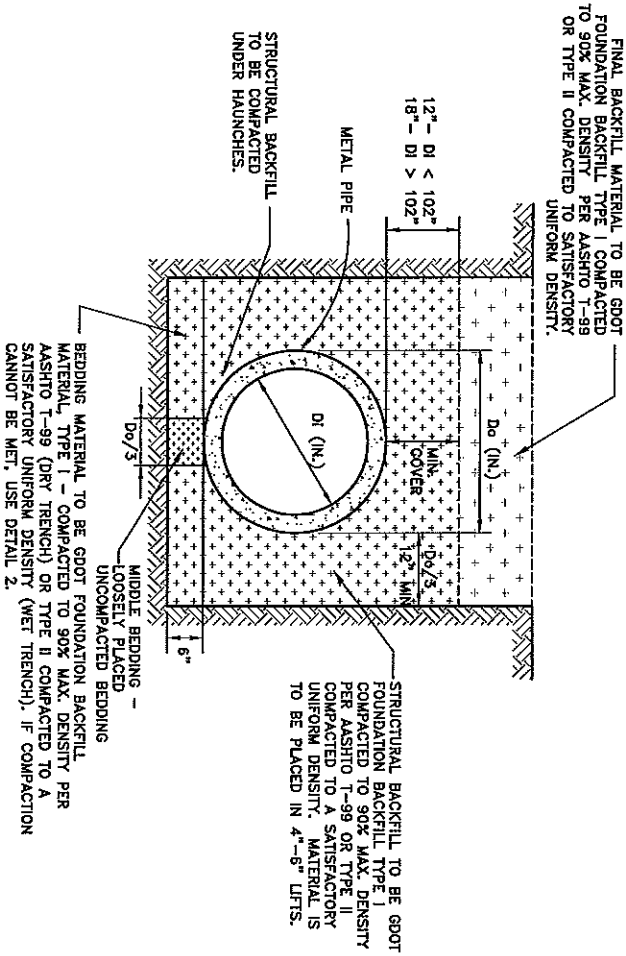
- GENERAL NOTES:**
- 1.) REFER TO SECTION 3.9.5 OF THE STORM SEWER FACILITIES INSTALLATION STANDARDS AND SPECIFICATIONS (SSFSS) FOR ALLOWABLE PIPE MATERIALS.
 - 2.) TRENCH BOTTOMS SHOULD BE FREE OF LARGE STONES, CLUMPS OF SOIL, FROZEN SOIL AND DEBRIS. WHERE AN INCOMPRESSIBLE FOUNDATION EXISTS, EXCAVATE AN ADDITIONAL 6" WHERE AN UNSTABLE FOUNDATION IS ENCOUNTERED, EXCAVATE AN ADDITIONAL DEPTH AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER AND BACKFILL WITH GOOD FOUNDATION BACKFILL TYPE II.
 - 3.) GROUNDWATER MAY CAUSE MIGRATION OF FINES WHEN COARSE AND OPEN-GRADED MATERIAL IS PLACED ADJACENT TO A FINER MATERIAL. USE GEOTEXTILE FILTER FABRIC TO MINIMIZE SUCH MIGRATION.
 - 4.) BELL HOLES SHALL BE EXCAVATED IN THE BEDDING WHEN INSTALLING PIPE WITH EXTENDED BELLS. SO THAT THE PIPE IS SUPPORTED BY THE BARREL AND NOT BY THE BELLS.



GWINNETT COUNTY
DEPARTMENT OF PLANNING & DEVELOPMENT
STANDARD PIPE BEDDING AND BACKFILL DETAIL

DATE: AUGUST 2013 SHEET: 710-1

STANDARD PIPE BEDDING AND BACKFILL DETAIL METAL PIPE



STANDARD BEDDING AND BACKFILL DETAIL 1

METAL PIPE (SEE NOTE 4)

STANDARD BEDDING AND BACKFILL DETAIL 2

METAL PIPE

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- 1.) REFER TO SECTION 3.9.5 OF THE STORM SEWER FACILITIES INSTALLATION STANDARDS AND SPECIFICATIONS (SSFSS) FOR ALLOWABLE PIPE MATERIALS.
 - 2.) TRENCH BOTTOMS SHOULD BE FREE OF LARGE STONES, CLUMPS OF SOIL, FROZEN SOIL AND DEBRIS. WHERE AN INCOMPRESSIBLE FOUNDATION EXISTS, EXCAVATE AN ADDITIONAL 6" WHERE AN UNSTABLE FOUNDATION IS ENCOUNTERED, EXCAVATE AN ADDITIONAL DEPTH AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
 - 3.) GROUNDWATER MAY CAUSE MIGRATION OF FINES WHEN COARSE AND OPEN-GRADED MATERIAL IS PLACED ADJACENT TO A FINER MATERIAL. USE GEOTEXTILE FILTER FABRIC TO MINIMIZE SUCH MIGRATION.
 - 4.) IF 90% STANDARD PROCTOR CANNOT BE OBTAINED THEN DETAIL 2 MUST BE USED.
 - 5.) SOIL PH AND WATER PH MUST BE GREATER THAN OR EQUAL TO 5.0 AND LESS THAN OR EQUAL TO 9.0. SOIL AND WATER RESISTIVITY MUST BE GREATER THAN 1500 OHM-CM. METAL PIPE MAY NOT BE USED IN LOCATIONS THAT RETURN TEST RESULTS OUTSIDE OF THESE PARAMETERS.

