

ALDOT-330-83
**PROCEDURE FOR MARKING, SAMPLING AND INSPECTION OF CORRUGATED METAL
ROUND AND ARCH ROADWAY AND SIDE DRAIN PIPE**

1. Scope

- 1.1. Corrugated metal pipe is supplied by in-state and out-of-state fabricators. The process of certifying test reports and inspection is basically the same. The following procedures will break down the responsibilities of the various individuals in this process.

2. Definitions and Abbreviations

- 2.1. Producer - The company which produces the flat coiled metal which is used in fabricating the pipe.
- 2.2. Fabricator - The company which produces the finished product for shipment to the project.
- 2.3. Base Metal - The flat coil metal from which the pipe is made. Base metal may be steel or aluminum.
- 2.4. Coating - The material used as a protective cover on the plain metal pipe. May be asphalt or polymeric coating.
- 2.5. Central Lab - The Alabama Department of Transportation Testing Laboratory, 3704 Fairground Road, Montgomery, Alabama 36110.
- 2.6. C.S. - Corrugated Steel
- 2.7. C.A. - Corrugated Aluminum
- 2.8. P.I. - Paved Invert
- 2.9. C.C.S. - Coated Corrugated Steel
- 2.10. C.C.A. - Coated Corrugated Aluminum
- 2.11. C.C.S.P.I. - Coated Corrugated Steel with Paved Invert
- 2.12. C.C.A.P.I. - Coated Corrugated Aluminum with Paved Invert
- 2.13. C.S.L.C.M. - Smooth Line Corrugated Metal (S for Steel, A for Aluminum)
- 2.14. C.S.F.C.M. - Smooth Flow Corrugated Metal (S for Steel, A for Aluminum)

3. Certifications

- 3.1. Certified test report containing, physical results, chemical results, galvanization in oz/ft² (g/m²), for each heat number and each gauge thickness of metal, in accordance with Alabama Department of Transportation Specifications Section 850 and AASHTO M-36.
- 3.2. Asphalt coating - certified test report meeting requirements of AASHTO M-190. All certifications shall be submitted to the Project Engineer with pipe; then forwarded to the Central Laboratory.
- 3.3. Pipe coated with polymeric type B coating shall have certified test report meeting requirements of AASHTO M-246. The markings may be put on all sheets with a marker rather than being stamped.

4. Marking of Finished Products

- 4.1. Plain corrugated metal pipe will be marked with the metal producer's stamped logo, heat number and thickness.
- 4.2. Coated corrugated metal pipe will be marked as follows:
 - 4.2.1. Each length of pipe will have one section, containing heat number and metal thickness, covered with duct tape before pipe is coated with asphalt. (This spot will be marked for easy field identification.)
 - 4.2.2. Pipe that is not properly marked will not be placed on a project until samples have been cut from the pipe and tested by the Central Laboratory.

5. Fabricator's Responsibility

- 5.1. Certify base metal and pipe coating as outlined in Section 3 of this procedure.
- 5.2. Identify all pipes as outlined in Section 4.
- 5.3. Furnish a copy of the metal producer's certified analysis for each heat and thickness of metal. This copy should be sent to the Project Engineer with pipe.
- 5.4. For welded seam pipe, the fabricator will furnish a certified test report for each heat number showing that the production will meet the strength requirements. One test will be reported for each heat number. This report will be submitted to the Project Engineer with pipe.

6. Project Engineer's Responsibility

- 6.1. Inspect pipe after it arrives on the project and before it is installed. This will be a visual inspection using BMT-60 as a guideline.
- 6.2. After heat number is checked by removing duct tape, asphalt will be repaired with 5X Knife Grade Asphalt, or Bitumastic 50 or approved equal.

- 6.3. After all necessary checks have been made attach copy of completed BMT-60 to certifications and send to Central Laboratory Certifications Section in Montgomery.
- 6.4. If the pipe is damaged it shall be rejected.
- 6.5. If the pipe is not properly marked, it cannot be installed. Samples must be cut from it and submitted to the Central Laboratory for testing. Only after these samples have been tested and approved can the pipe then be installed.

7. Approval for Payment

- 7.1. Payment for pipe cannot be made until the Project Engineer has made his final pipe inspection and received a Certification (Form CERT C.M.P.) from the Central Laboratory.

8. Additional Testing

- 8.1. The Alabama Department of Transportation will reserve the right to sample any pipe after the pipe has arrived on the project. This may be done at the Project Engineer's request or whenever the Testing Engineer feels that it is necessary. The results of this testing will be considered to take precedent over all other testing or certification performed previous to this time.