

EXPECTED IMPLEMENTATION JULY 2020

945 ALUMINUM PIPE, INCLUDING UNDERDRAIN, PIPE ARCH AND STRUCTURAL PLATE PIPE AND PIPE ARCH

(REV 11-6-19) (FA 1-9-20) (7-20)

ARTICLE 945-1 is deleted and the following substituted:

945-1 General Requirements.

Aluminum-alloy culvert pipe and underdrains shall meet the requirements of AASHTO M196 and shall include plant certification from the National Transportation Product Evaluation Program (NTPEP) and compliance with the additional provisions contained herein. Except for underdrain, corrugated aluminum pipe including pipe arch shall be fabricated with helical corrugations with a minimum of two annular corrugations formed into each end of each pipe to accommodate a coupling band. Annular fabrication is not permitted unless specifically called for in the Plans or specifications. Provide, as part of the shipping ticket, the actual mean inside diameter and total measured lengths of each lot of pipe shipped to the project. Include the minimum and maximum inside diameters used to calculate the actual mean inside diameter.

For sidedrains, unless shown otherwise in the Plans the minimum thickness of the metal shall be as specified below. Alternatively, if no future maintenance concerns exist, the Contractor may propose the pipe gage based on the Department's Drainage Manual and Culvert Service Life Estimator for approval by the Engineer.

TABLE 1
THICKNESS OF METAL FOR SIDEDRAIN PIPE

Nominal Diameter or Equivalent (inches)	Sheet Gauge No.	Mean Thickness of Metal (inches)
6	18	0.048
8	16	0.060
10	16	0.060
12	16	0.060
15	16	0.060
18	16	0.060
21	16	0.060
24	16	0.060
30	14	0.075
36	14	0.075
42	12	0.105
48	12	0.105
54	12	0.105
60	10	0.135
66	10	0.135
72 and over	8	0.164

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Where bituminous coated aluminum pipe is specified the bituminous coating shall meet the requirements as specified for corrugated steel pipe in 943-5. Bituminous coated and paved aluminum pipe shall meet the additional requirements specified in 943-6 and 943-7, as applicable.

Class IV pipe shall not be used.

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