

Product Notes

Product Note 3.142

Re: EPA Phase II, Best Management Practices
Inlet Liners

Date: February 2002

By: Greg Baryluk, P.E.



60°

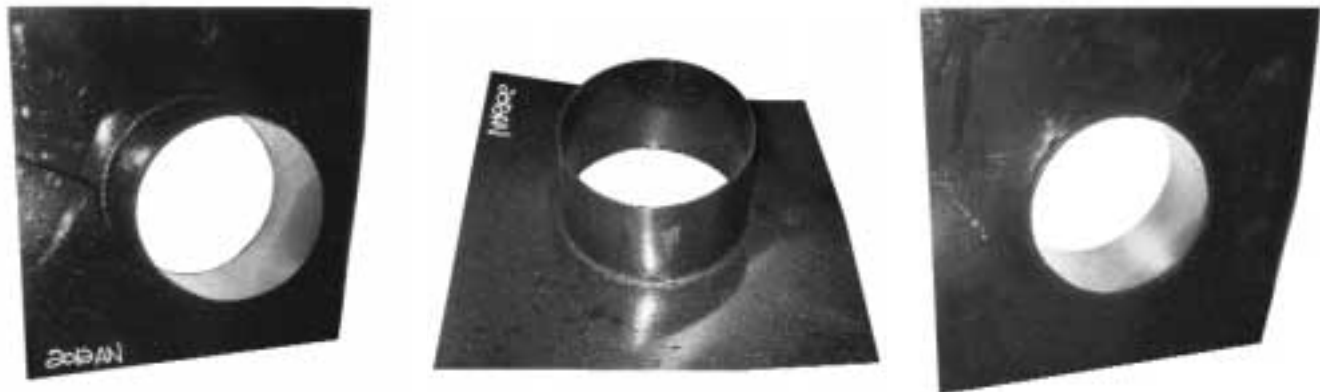
Introduction

Under the Phase II program, the EPA is concerned with the quality of water discharged. In certain areas, deterioration of concrete structures occurs soon after installation. This typically occurs at the top part of the structure where the corrosive effect of salts used for snow removal applications has a negative effect on the structure. This situation can negatively impact the quality of the storm water through the introduction of solids from the deteriorating structure. If the deterioration advances further, backfill around the structure could also be introduced causing further quality degradation and possible structural problems.

ADS Alternatives

For retrofit installations, ADS has developed an HDPE liner that can be inserted into a drop structure to eliminate further deterioration of the top part of the structure. The liner consists of a plate with orifice. Welded to the orifice, is an HDPE cylinder of the same size. The liner directs the incoming water straight into the structure versus allowing the storm water to run down the side of the structure. By eliminating this pathway, corrosive salts do not come into contact with this top part thus protecting the structure from deterioration at this location.

For new installations, ADS offers both the Nyloplast drain basin structures as well as ADS risers for inlet structures. Both the Nyloplast PVC basin and the ADS HDPE riser are corrosion resistant and are not impacted by the corrosive effect of road salts. As such, they will not break down and impact the quality of the storm water stream. Additional information on both of these alternatives can be obtained from your ADS sales representative.



HDPE Inlet Liner

Specification for HDPE Inlet Liner

Part 1: General

1.1 HDPE Inlet Liner Description

The HDPE Inlet Liner shall be an HDPE cylinder extrusion welded to an HDPE sheet.

1.2 Submittals

All liners not covered by this specification shall be approved by the Engineer seven (7) days prior to the bid letting.

Part 2: Products

2.1 Acceptable Manufacturers

The HDPE Inlet Liner shall be manufactured by Advanced Drainage Systems, Inc., or pre-approved equal.

2.2 Materials

The HDPE Inlet Liner shall be of the size and length as shown on the plans and be manufactured with HDPE sheet and a cylinder both with a wall thickness not less than 6 mm (1/4 inch). All raw materials shall be produced and manufactured in the United States of America.

Part 3: Execution

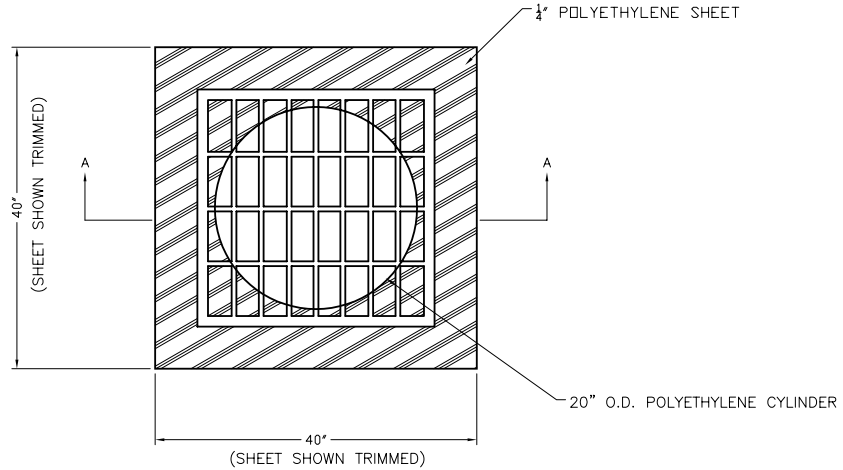
3.1 Inspection

All HDPE Inlet Liners shall be inspected. Damaged Liners may not be accepted.

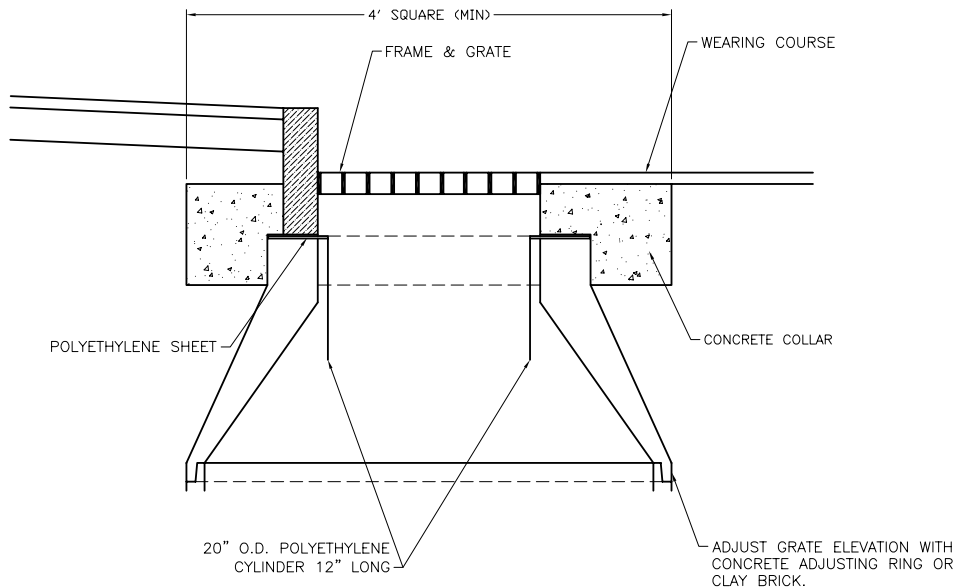
3.2 Installation

Installation shall be per local agency requirements or manufacturer's published recommendations.

POLYETHYLENE LINER INSTALLATION DETAIL



PLAN




SECTION A-A

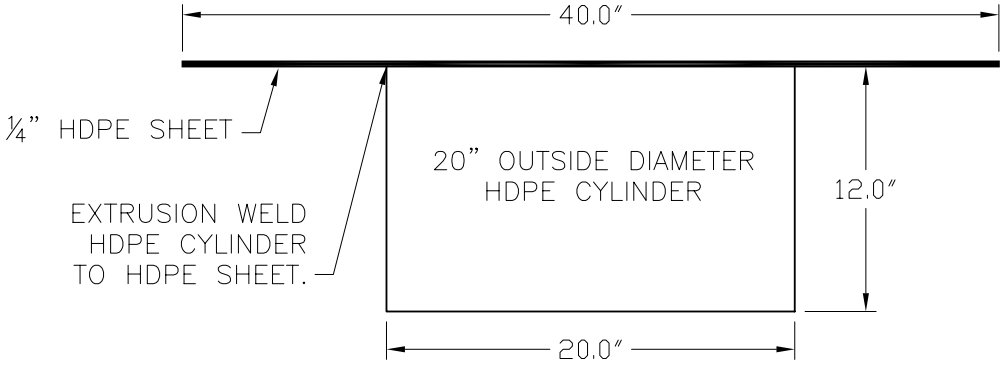
GENERAL NOTES

1. POLYETHYLENE LINER SHALL BE FABRICATED AT THE SHOP. CYLINDER SHALL BE EXTRUSION FILLET WELDED TO THE POLYETHYLENE SHEET.
2. PLACE A CONTINUOUS BEAD OF AN APPROVED SILICONE SEALANT BETWEEN FRAME AND POLYETHYLENE SHEET.
3. PLACE CONCRETE TO 2" BELOW THE TOP OF GRATE ELEVATION USE ON DRAINAGE STRUCTURE 4" MIN. DIAMETER ONLY.
4. TRIM POLYETHYLENE SHEET A MAXIMUM OF 4" OUTSIDE THE FLANGE ON THE FRAME FOR THE CATCH BASIN BEFORE PLACING CONCRETE (EXCEPT AS SHOWN WHEN USED WITH CURB).
5. THE CENTER OF THE GRATE & FRAME MAY BE SHIFTED A MAXIMUM OF 6" FROM THE CENTER OF THE CYLINDER IN ANY DIRECTION.

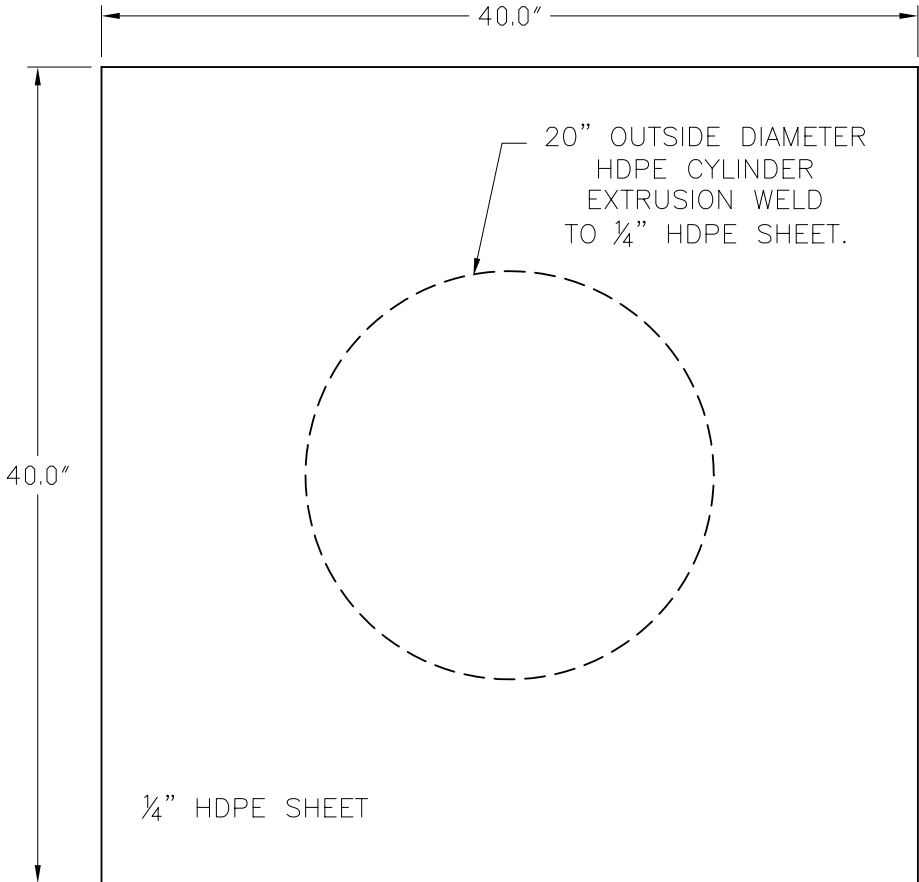
NOTE: ALL DIMENSIONS ARE NOMINAL

			REVISIONS	
			BY	DATE
			AWM	03.15.02
DRAWN BY	APPROVED BY	DRAWING #		
AWM 09.19.01	AWM 09.19.01			

HDPE INLET LINER




SIDE VIEW



TOP VIEW

NOTE: ALL DIMENSIONS ARE NOMINAL

			REVISIONS	
		BY	DATE	
		AWM	03.15.02	
DRAWN BY	APPROVED BY	DRAWING #		
AWM 09.19.01	AWM 09.19.01			