

**APPENDIX D**  
**MINIMUM AND MAXIMUM BURIAL**  
**DEPTHS FOR FLEXIBLE PIPE**

The attached table outlines minimum and maximum burial depths for the flexible pipe products that are currently approved for use on MSD projects. It was developed using the design procedures contained in the AASHTO Standard Specifications – Division I, Section 12 for aluminized steel pipe and Section 18 for thermoplastic pipe. It also considers a limiting deflection of 5 percent, using the Modified Iowa Method. This table should be used as a reference when standard conditions apply.

Standard conditions assume that the pipe is installed in a trench conforming with the details shown in Appendix F. Backfill is assumed to be 120 pounds per cubic foot. This corresponds to normal soil receiving moderate compaction, or sand which has been flushed and jetted. If the backfill is expected to contain significant quantities of rock fragments, then a higher unit weight should be used and project specific calculations should be performed when unusual (greater than AASHTO H-20) live loadings are expected or the loading does not represent a true negative projecting installation. This could occur in situations containing fill embankments.

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Louisville and Jefferson County  
Metropolitan Sewer District

**EXHIBIT D-1**  
**MINIMUM AND MAXIMUM BURIAL DEPTHS FOR**  
**FLEXIBLE PIPE**

**EFFECTIVE DATE: APRIL 1, 1995**

**MINIMUM AND MAXIMUM BURIAL DEPTHS FOR FLEXIBLE PIPE**

Pipe Type	Applicable Standard	Diameter (inches)	Stiffness (psi)	Minimum / Maximum Burial Depth (feet)
ETI Ultra-Rib Pipe Ribbed PVC Sewer Pipe	ASTM D-794	8" through 18"	60 PSI	1.0 / 25.0'
		21" through 30"	46 PSI	1.0 / 25.0'
Perma-Loc Corrugated PVC Sewer Pipe	ASTM F-794	18" - 36"	46 PSI	1.0 / 25.0'
Contech A 2000 PVC Sewer Pipe	ASTM F-949	4" - 18"	55 PSI	1.0 / 25.0'
Carlton Nylon H. C. Profile PVC Sewer Pipe	ASTM F-794	21" - 48"	46 PSI	1.0 / 25.0'
ADS - N12 HDPE Corrugated Pipe	AASHTO M252	4" - 8"	50 PSI	1.0 / 20.0'
	AASHTO M252	10"	50 PSI	1.0 / 17.0'
	AASHTO M294	12"	50 PSI	1.0 / 17.0'
	AASHTO M294	15"	42 PSI	1.0 / 17.0'
	AASHTO M294	18"	40 PSI	1.0 / 17.0'
	AASHTO M294	24"	34 PSI	1.0 / 17.0'
	AASHTO M294	30"	28 PSI	1.0 / 14.0'
Hancor Hi-Q HDPE Corrugated Pipe	AASHTO M252	4" - 6"	50 PSI	1.0 / 23.0'
	AASHTO M252	8"	50 PSI	1.0 / 20.0'
	AASHTO M252	10" - 12"	50 PSI	1.0 / 16.0'
	AASHTO M294	15"	42 PSI	1.0 / 16.0'
	AASHTO M294	18"	40 PSI	1.0 / 16.0'
	AASHTO M294	24"	34 PSI	1.0 / 16.0'
	AASHTO M294	30"	28 PSI	1.0 / 15.0'
Driscopipe Permacore HDPE Profile Pipe	ASTM F-894	18" through 48"	RSC 160	1.0 / 25.0'
Solid Wall PVC Pipe SDR 35 SDR 26 SDR 21	ASTM D-3034	4" through 27"	46 PSI	1.0 / 25.0'
	ASTM D-2241	1-1/2" through 12"	115 PSI	1.0 / 25.0'
	ASTM D-2241	1-1/2" through 12"	234 PSI	1.0 / 25.0'
CONTECH Aluminized Steel ULTRA-FLO	AASHTO M36	18" through 48"	16 gauge	1.0 / 25.0'
	AASHTO M36	54"	16 gauge	1.25 / 22.0'
	AASHTO M36	60"	16 gauge	1.25 / 20.0'
	AASHTO M36	18" through 48"	14 gauge	1.0 / 25.0'
	AASHTO M36	54" through 60"	14 gauge	1.25 / 25.0'
	AASHTO M36	66"	14 gauge	1.5 / 25.0'
	AASHTO M36	72"	14 gauge	1.5 / 24.0'
	AASHTO M36	78"	14 gauge	1.75 / 22.0'
	AASHTO M36	18" through 60"	12 gauge	1.0 / 25.0'
	AASHTO M36	66" through 72"	12 gauge	1.25 / 25.0'
	AASHTO M36	78"	12 gauge	1.5 / 25.0'
	AASHTO M36	84"	12 gauge	1.75 / 25.0'
	AASHTO M36	90" through 96"	12 gauge	2.0 / 25.0'
	AASHTO M36	102"	12 gauge	2.5 / 25.0'

NOTE: Based on H-20 loading, 100% pavement transference, AASHTO impact factors, prism load with soil unit weight of 120 pcf, and soil modulus of 1000 psi. Refer to installation details for trench width and installation specifications.