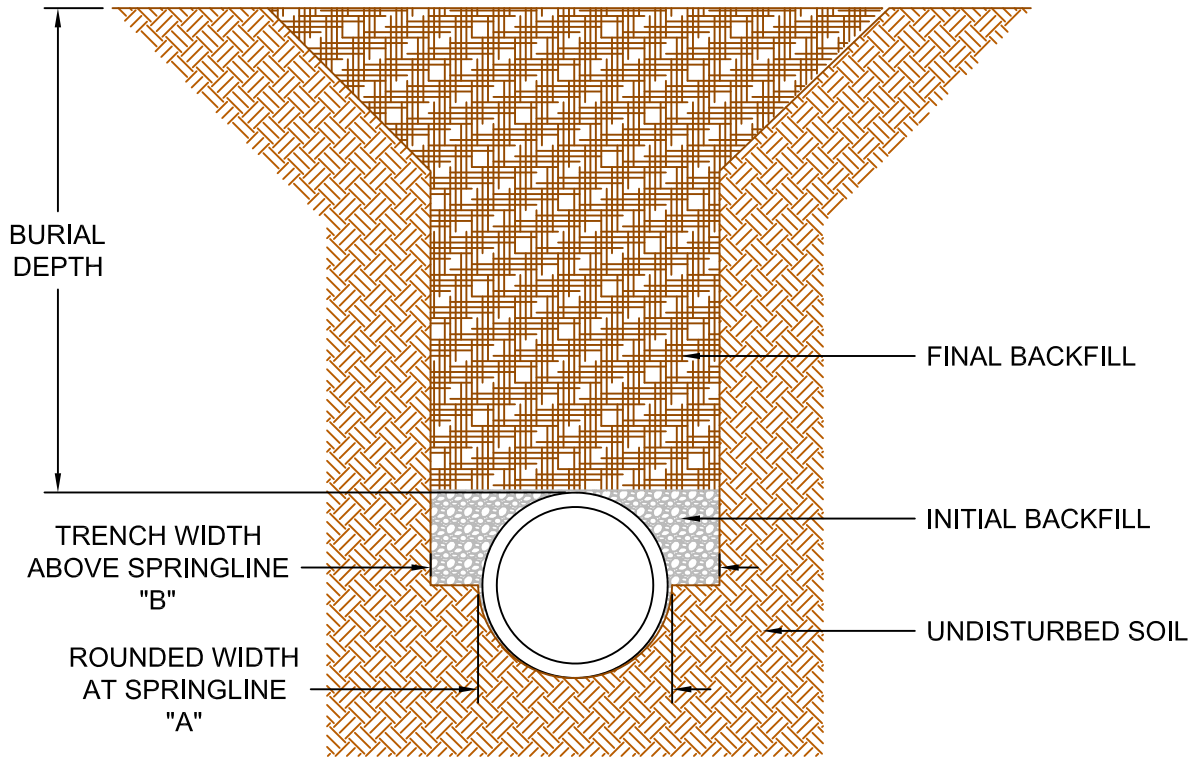


ROUNDED TRENCH BOTTOM FOR AGRICULTURAL APPLICATIONS



Pipe Diameter	Rounded Width (Pipe OD) "A"	Max. Rounded Width at Springline "A"	Max. Trench Width above Springline "B"
12 (300)	14.4 (366)	16.4 (417)	26.4 (671)
15 (375)	17.6 (447)	19.6 (498)	29.6 (752)
18 (450)	21.4 (544)	23.4 (594)	33.4 (848)
24 (600)	28.3 (719)	30.3 (770)	40.3 (1020)
30 (750)	34.7 (881)	36.7 (932)	50.7 (1290)
36 (900)	40.6 (1030)	42.6 (1080)	58.6 (1490)
42 (1050)	47.8 (1210)	49.8 (1270)	67.8 (1720)
48 (1200)	54.2 (1380)	56.2 (1430)	74.2 (1890)
60 (1500)	66.8 (1700)	68.8 (1750)	91.8 (2330)

NOTES:

1. SHAPED TRENCH BOTTOMS ARE INTENDED TO USE IN SUBSURFACE AGRICULTURAL DRAINAGE APPLICATIONS AND CAN BE USED WITH PRINSCO GOLDFLO, GOLDFLEX, OR GOLDPRO STORM, ALTHOUGH THE VARIOUS PIPE TYPES MAY HAVE UNIQUE COVER HEIGHT CAPABILITIES.
2. INSTALL ALL PIPE IN ACCORDANCE WITH ASTM F449 - *STANDARD PRACTICE FOR SUBSURFACE INSTALLATION OF CORRUGATED POLYETHYLENE PIPE FOR AGRICULTURAL DRAINAGE OR WATER TABLE CONTROL*.
3. **UNDISTURBED SOIL:** THE NATIVE, UNDISTURBED SOIL FORMING THE SHAPED BOTTOM AND TRENCH WALLS MUST BE FREE OF UNYIELDING MATERIAL, STABLE, AND CAPABLE OF FORMING THE FINAL TRENCH SHAPE WITHOUT SLOUGHING. IF SLOUGHING OCCURS, MATERIAL SHALL BE REMOVED AND AN ALTERNATIVE TRENCH SHAPE SHALL BE CONSIDERED.
4. **ROUNDED TRENCH SHAPE:** THE ROUNDED BOTTOM OF THE TRENCH SHALL MATCH AS CLOSE TO THE OUTSIDE DIAMETER OF THE PIPE AS POSSIBLE. A MAXIMUM GAP OF 1" BETWEEN THE PIPE AND ROUNDED TRENCH BOTTOM IS ALLOWED ALTHOUGH ANY VOIDS AROUND THE PIPE CAN LEAD TO EXCESSIVE DEFLECTION OF THE INSTALLED PIPE. THE ROUNDED BOTTOM SHALL EXTEND AT A MINIMUM TO THE SPRINGLINE OF THE PIPE WHERE THE BOTTOM HALF OF THE PIPE IS COMPLETELY SUPPORTED.
5. **TRENCH WIDTH:** THE TRENCH WIDTH ABOVE THE SPRINGLINE SHALL BE LIMITED TO THE DIMENSIONS RECOMMENDED IN TABLE 1 AS REFERENCED IN ASTM F449. WIDER TRENCHES CAN BE CONSIDERED, BUT MAY REQUIRE A HIGHER GRADE BACKFILL OR COMPACTION LEVEL TO ACHIEVE SIMILAR COVER HEIGHTS.
6. **INITIAL BACKFILL MATERIAL:** CLASS 1, 2, 3, OR 4 BACKFILL SHALL BE PLACED AND COMPACTED AROUND THE PIPE AND CAN EXTEND ABOVE THE PIPE. INITIAL BACKFILL SHALL BE UNIFORM, EVENLY PLACED AROUND THE PIPE AND FREE OF LARGE CLUMPS AND VOID AREAS.
7. **MINIMUM COVER:** FOR SHAPED TRENCHES IN AGRICULTURAL APPLICATIONS, MINIMUM COVER SHALL BE 2-FEET TO LIMIT DEFLECTION FROM LIVE MACHINERY LOADING. MINIMUM COVER SHOULD BE INCREASED IF INSTALLED IN ORGANIC SOIL OR WITH HEAVY CONSTRUCTION LOADING.
8. **MAXIMUM COVER:** REFER TO TECHNICAL NOTE TN-2-051 - *SHAPED TRENCH INSTALLATION AND BURIAL DEPTHS* FOR MAXIMUM BURIAL DEPTHS OF SHAPED TRENCH INSTALLATIONS WITH VARIOUS BACKFILL TYPES AND SPECIFIC PIPE SIZES.

Table 2 - Backfill Description & Soil Classification

Backfill Description	Soil Classification	
	ASTM D2321	ASTM D2487
Graded or crushed stone; Crushed Gravel	Class 1	-
Well-graded sand, gravel, and gravel/sand mixtures; Poorly graded sand, gravel, and gravel/sand mixtures; Little or no fines	Class 2	GW, GP, SW, SP
Silty or clayey gravel, gravel/sand/silt, or gravel/clay mixtures, silty or clayey sands, sand/clay or sand/silt mixtures	Class 3	GM GC SM SC
Inorganic silts and low to medium plasticity clays; gravelly, sandy, or silty clays; some fine sands	Class 4A	ML CL

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TITLE: HDPE PIPE - ROUNDED TRENCH BOTTOM			
DRAWN BY: TRA	DATE: 16-May-25	DRAWING NUMBER: D-1-162	
SCALE: NTS	SHEET: 1 OF 1		