


PIPE DIA mm	RISE x SPAN mm	BEDDING CLASS	POSITIVE PROJECTING EMBANKMENT					CONFINED TRENCH				
			MAXIMUM HEIGHT OF FILL FOR DEPTHS > 0.6m					MAXIMUM HEIGHT OF FILL FOR DEPTHS > 0.6m				
			HE-A (30-D)	HE-I (40-D)	HE-II (50-D)	HE-III (60-D)	HE-IV (100-D)	HE-A (30-D)	HE-I (40-D)	HE-II (50-D)	HE-III (60-D)	HE-IV (100-D)
900	730 x 1150	B	-	2.1	2.7	3.6	6.0	-	2.1	2.7	3.9	7.2
		C	-	1.8	2.1	3.0	4.8	-	1.8	2.1	3.0	5.1
1050	855 x 1345	B	-	2.1	2.7	3.9	6.0	-	2.1	2.7	3.9	7.5
		C	-	1.8	2.4	3.0	4.8	-	1.8	2.4	3.0	5.4
1200	975 x 1535	B	-	2.4	3.0	3.9	6.0	-	2.4	3.0	3.9	7.5
		C	-	1.8	2.4	3.0	4.8	-	1.8	2.4	3.0	5.4
1350	1095 x 1730	B	-	2.4	3.0	3.9	6.0	-	2.4	3.0	4.2	7.5
		C	-	1.8	2.4	3.0	4.8	-	1.8	2.4	3.3	5.4
1500	1220 x 1920	B	-	2.4	3.0	3.9	6.0	-	2.4	3.0	4.2	7.5
		C	-	1.8	2.4	3.3	4.8	-	1.8	2.4	3.3	5.4
1650	1340 x 2110	B	-	2.4	3.0	3.9	6.0	-	2.4	3.0	4.2	7.5
		C	-	1.8	2.4	3.3	4.8	-	1.8	2.4	3.3	5.4
1800	1465 x 2305	B	-	2.4	3.3	3.9	6.0	-	2.4	3.3	4.2	7.5
		C	-	1.8	2.4	3.3	4.8	-	1.8	2.4	3.3	5.4
1950	1585 x 2495	B	-	2.4	3.3	4.2	6.0	-	2.4	3.3	4.2	7.5
		C	-	1.8	2.4	3.3	5.1	-	1.8	2.4	3.3	5.4
2100	1705 x 2690	B	-	2.4	3.3	4.2	6.0	-	2.4	3.3	4.2	7.5
		C	-	1.8	2.7	3.3	5.1	-	1.8	2.7	3.3	5.4
2400	1950 x 3070	B	-	2.7	3.3	4.2	6.3	-	2.7	3.3	4.2	7.5
		C	-	1.8	2.7	3.3	5.1	-	1.8	2.7	3.3	5.4
2700	2195 x 3455	B	-	2.7	3.3	4.2	6.3	-	2.7	3.3	4.5	7.5
		C	-	1.8	2.7	3.6	5.4	-	1.8	2.7	3.3	5.7
3000	2440 x 3840	B	-	2.7	3.3	4.5	6.6	-	2.7	3.3	4.5	7.2
		C	-	1.8	2.7	3.6	5.4	-	1.8	2.7	3.3	5.4

NOTES:

- A Height of fill is measured from the finished surface to top of pipe.
- B Minimum design height of fill over the top of pipe shall be greater than 600mm. Contact the concrete pipe supplier for special pipe designs 600mm or less.
- C For pipe-to-structure connections, the recommended minimum height of fill over the top of pipe shall be 600mm. Refer to OPSS 401.07.10 for minimum height of fill for backfilling and use of heavy equipment.
- D This OPSD shall be read in conjunction with OPSD 802.050.
- E The table is based on backfill density of 2,243 kg/m³, truck axle loads as per CHBDC Annex A3.4.1.
- F For the positive projecting embankment and confined trench, the load factor used for the calculation of the variable bedding factor is: Class B bedding=1.9, and Class C bedding=1.5.
- G For confined trench, $K_{\mu}'=0.165$. This represents a sand and gravel soil material in the trench walls, similar to Granular A or Granular B Type II as per OPSS 1010.
- H For positive projecting embankment $K_{\mu}=0.165$, $p=0.8$, and $r_{sd}=0.7$. This represents a sand and gravel soil material as the embankment backfill, similar to Granular A or Granular B Type II as per OPSS 1010.
- I This Fill Height Table was established using assumed design parameters, and should be used for guideline purposes only. The user should verify specific design requirements for the pipe design.
- J For fill heights greater than the maximum heights given in this table, contact a manufacturer of horizontal elliptical concrete pipe.
- K Conditions other than those indicated shall be calculated from first principles.
- L All dimensions are in metres unless otherwise shown.

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HEIGHT OF FILL TABLE HORIZONTAL ELLIPTICAL CONCRETE PIPE CLASS HE-A, HE-I, HE-II, HE-III, and HE-IV	 <hr style="border-top: 1px dashed black;"/> <hr style="border-top: 1px dashed black;"/> OPSD 807.050