

## CUBIC YARDS EXCAVATION PER LINEAR FOOT

INSIDE PIPE DIAMETER (INCHES)	DEPTH OF EXCAVATION IN FEET											
	5	6	7	8	10	12	14	16	18	20	22	24
12"	1.3	1.8	2.3	3.0	4.4	6.2	8.3	10.7	13.3	16.3	19.6	23.0
15"	1.3	1.8	2.4	3.1	4.5	6.3	8.4	10.8	13.5	16.5	20.0	23.0
18"	1.4	1.9	2.5	3.1	4.6	6.4	8.5	11.0	13.7	16.7	20.0	24.0
21"	1.4	1.9	2.5	3.2	4.7	6.6	8.7	11.1	13.8	16.9	20.0	24.0
24"	1.5	2.0	2.6	3.3	4.8	6.7	8.8	11.3	14.0	17.0	20.0	24.0
27"	1.7	2.3	2.9	3.6	5.3	7.2	9.5	12.0	14.8	18.0	21.0	25.0
30"	1.8	2.4	3.0	3.7	5.4	7.3	9.6	12.1	15.0	18.1	22.0	25.0
33"	1.9	2.4	3.0	3.8	5.5	7.4	9.7	12.3	15.2	18.3	22.0	26.0
36"	1.9	2.5	3.1	3.9	5.6	7.6	9.9	12.4	15.3	18.5	22.0	26.0
42"	2.0	2.7	3.2	4.0	5.7	7.8	10.1	12.7	15.7	18.9	22.0	26.0
48"	2.0	2.7	3.4	4.1	5.9	8.0	10.4	13.0	16.0	19.3	23.0	27.0
54"		3.0	3.8	4.6	6.5	8.7	11.1	13.9	17.0	20.0	24.0	28.0
60"			3.9	4.7	6.7	8.9	11.4	14.2	17.3	21.0	24.0	28.0
66"			4.0	4.9	6.9	9.1	11.7	14.5	17.7	21.0	25.0	29.0
72"				5.0	7.0	9.3	11.9	14.8	18.0	21.0	25.0	29.0
78"				5.2	7.2	9.6	12.2	15.1	18.3	22.0	26.0	30.0
84"					7.4	9.8	12.4	15.4	18.7	22.0	26.0	30.0
96"					7.8	10.2	13.0	16.0	19.3	23.0	27.0	31.0
108"						10.6	13.5	16.6	20.0	24.0	28.0	32.0
							14.0	17.2	21.0	24.0	29.0	33.0

MNDOT EXCAVATION PAY ITEMS (2451)  
 2451.501 STRUCTURE EXCAVATION CLASS \_\_\_\_  
 2451.503 GRANULAR BACKFILL  
 2451.505 AGGREGATE BACKFILL  
 2451.507 GRANULAR BEDDING  
 2451.509 AGGREGATE BEDDING  
 2451.511 COURSE FILTER AGGREGATE  
 2451.513 FINE FILTER AGGREGATE

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SOIL TYPE CLASSIFICATION  
 U - ALL MATERIALS UNCLASSIFIED  
 E - ALL MATERIALS IN EXCAVATION EXCEPT THOSE CLASSIFIED AS R  
 R - LEDGE ROCK, BOULDERS, DETACHED ROCK, CONCRETE, EACH HAVING A VOLUME OF 1/2 CUBIC YARD OR MORE  
 W - UPPER LIMIT OF ANY EXCAVATION SO DESIGNATED WILL BE THE ELEVATION OF LOW WATER, ASSUMED OR ACTUAL

MNDOT SPEC. REF. 2451, 2501, 2502, 2503  
 MINNEAPOLIS DESIGN CHART  
 NOT TO SCALE

	MINNEAPOLIS DEPARTMENT OF PUBLIC WORKS	EXCAVATION CHART	STANDARD PLATE NO. SEWR-6000	
	DRAWN: DCD			DATE: 4/03
	APPROVED: HRS			DATE: 1/07