

# Guidelines for Onsite Wastewater Treatment

## APPENDIX II: SEPTIC TANKS

### SIZING CRITERIA

The table below shall be used to determine the minimum effective septic tank capacity required.

AVERAGE WASTEWATER FLOW (U.S. gallons / day)	MINIMUM EFFECTIVE CAPACITY (U.S. gallons)
0-375	750
376 – 550	1,000
551 – 725	1,250
726 – 900	1,500
901 – 1,100	1,750
1,101 – 1,300	2,000
1,301 – 1,550	2,250
1,551 – 1,800	2,500

### DESIGN CRITERIA

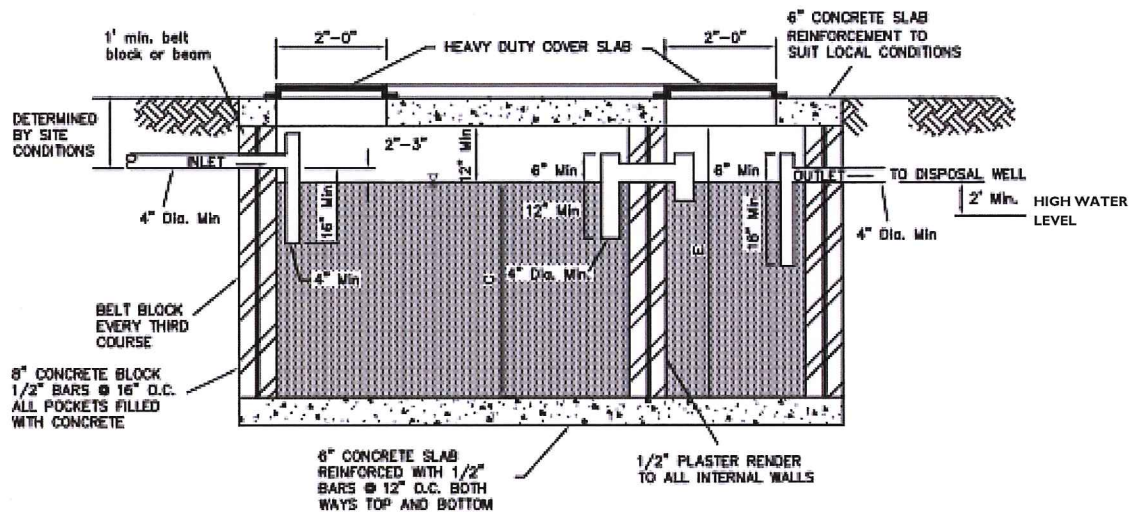
1. The design of the septic tank shall be such as to assure uniform horizontal flow throughout its entire length, permitting adequate retention and access for cleaning.
2. Septic tanks shall be watertight and constructed of sound and durable materials not subject to excessive corrosion, decay or to cracking or buckling due to settlement or backfilling. Septic tanks shall be constructed in a workmanlike manner and designed to support the superimposed load without failure.
3. Septic tanks shall have two (2) or more compartments to achieve the required liquid capacity. The first chamber shall have a minimum effective liquid capacity of at least two-thirds of the total required liquid capacity. Additional chambers shall have a minimum effective capacity equal to or greater than one-half of the liquid capacity of the first chamber.
4. The total length of the septic tank shall not be less than two times the width. The minimum inside width of a septic tank shall not be less than 42 inches.
5. The total inside depth of the septic tank shall not be less than sixty (60) inches. The liquid depth of compartments shall be at least forty-eight (48) inches. Liquid depths greater than seventy-two (72) inches shall not be considered in determining the effective liquid capacity.
6. A minimum freeboard or airspace of twelve (12) inches between the liquid level and the underside of the cover slab shall be provided.
7. The normal dimensions for the required septic tank capacities shall be as stated in the table shown on Drawing I. Variation of these dimensions will be allowed provided that the requirements as detailed in the sub-clauses 2 through 5 are still satisfied.
8. Each compartment shall have access provided by a twenty-four (24) inch wide square opening manhole or a twenty-four (24) inch diameter circular opening manhole. The manholes shall be located so as to allow access to the inlet and outlet devices. The manholes shall extend to finished grade.
9. The inlet invert shall enter the tank (2) to three (3) inches above the liquid level of the tank. A vented inlet tee shall be provided to divert the incoming sewage. The inlet tee shall have a minimum diameter of three (4) inches and shall extend at least sixteen (16) inches below the liquid surface, but not more than one-third of the liquid depth.
10. A minimum three (3) inch diameter vented outlet tee shall extend at least eighteen (18) inches below the liquid level of the tank, but not more than forty (40) percent of the liquid depth, and shall extend at least six (6) inches above the liquid level. The outlet tee shall be two (2) to three (3) inches below the invert of the inlet tee.
11. The inlet and outlet tees shall be located at opposite ends of the tank so as to be separated by the maximum distance possible and shall be attached in a watertight manner.
12. The first and second chamber shall be interconnected utilizing a tee with a minimum diameter of four (4) inches. The intake of the outlet tee shall extend at least twelve (12) inches below the liquid surface, but not more than one-third of the liquid depth, and shall extend at least six (6) inches above the liquid level.



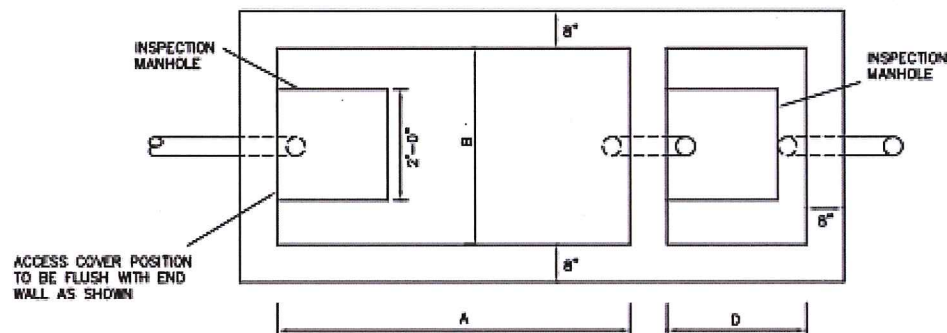
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## APPENDIX II: SEPTIC TANK

### DETAIL DRAWING : Septic Tank



NOT TO SCALE



SEPTIC TANKS					
Normal Dimensions					
Gal.	A	B	C	D	E
750	5'0"	3'6"	4'0"	2'6"	5'0"
1000	6'0"	3'6"	4'6"	3'0"	5'6"
1250	6'6"	4'0"	4'6"	3'6"	5'6"
1500	7'0"	4'6"	4'6"	3'6"	5'6"
1750	7'0"	5'0"	4'6"	4'0"	5'6"
2000	8'6"	5'0"	4'6"	4'6"	5'6"
2250	8'6"	5'6"	4'6"	4'6"	5'6"
2500	8'6"	5'6"	5'0"	4'6"	6'0"

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Water Authority-Cayman