APPENDIX C. PIPE SPECIFICATIONS FOR ON-SITE SEWAGE TREATMENT SYSTEMS [REVOKED]

USE	PIPE SIZE	ACCEPTABLE MATERIALS
Building sewer and other solid pipe when used for single family residences only	Minimum 3" diameter	*Acrylonitrile Butadiene Styrene (ABS)*: ASTM D2661 ASTM D2751 ASTM F628 *Polyvinyl Chloride (PVC)*: ASTM D2665 ASTM D2949 ASTM 3033 ASTM 3034 ASTM F789
Building sewer and other solid pipe when the average flow is 2,000 gpd or less	Minimum 4" diameter	
Building sewer and other solid pipe when the average flow is greater than 2,000 gpd	Minimum 6" diameter	
Discharge line from lift stations or other pressurized effluent waste water lines†	Minimum 1" diameter	*Polyvinyl Chloride (PVC)*: ASTM D2846 ASTM F441 ASTM F442 Schedule 40
Low pressure dosing manifold pipe	3" diameter	
Low pressure dosing perforated pipe	1 ½" diameter	
Perforated pipe when used in a conventional subsurface absorption field or an ET/A field	Minimum 3" diameter	*Polyethylene (PE)*: ASTM F405 ASTM F810 ASTM D3350 *Polyvinyl Chloride (PVC)*: ASTM D2729 ASTM D3034 ASTM D3350

† All reclaimed, pressurized water piping shall be colored purple (Pantone 522) by the manufacturer.

APPENDIX C. PIPE SPECIFICATIONS FOR ON-SITE SEWAGE TREATMENT SYSTEMS [NEW]

USE	PIPE SIZE	ACCEPTABLE MATERIALS
Solid pipe when used for single family residences or small public systems where the flow is 1,500 gpd or less	3" to 4" diameter	*Acrylonitrile Butadiene Styrene (ABS)*: ASTM D2661 ASTM D2751 ASTM F628 *Polyvinyl Chloride (PVC)*: ASTM D2665 ASTM D2949 ASTM D3033 ASTM D3034 ASTM F789
Solid pipe when the average flow is greater than 1,500 gpd	Minimum 6" diameter	
Discharge line from lift stations or other pressurized effluent waste water lines†	Minimum 1" diameter	*Polyvinyl Chloride (PVC)*: ASTM D2846 ASTM F441 ASTM F442 Schedule 40
Low pressure dosing manifold pipe	3" diameter	
Low pressure dosing perforated pipe	1 ½" diameter	
Perforated pipe when used in a conventional subsurface absorption field or an ET/A field	Minimum 3" diameter	*Polyethylene (PE)*: ASTM F810 ASTM D3350 *Polyvinyl Chloride (PVC)*: ASTM D2729 ASTM D3034 ASTM D3350

† All reclaimed, pressurized water piping shall be colored purple (Pantone 522) by the manufacturer.

APPENDIX E. HORIZONTAL SEPARATION DISTANCE REQUIREMENTS FOR ON-SITE SEWAGE TREATMENT SYSTEMS [REVOKED]

Required Horizontal Separation Distances in Feet

	Aerobic Treatment Unit, Flow Equalization Tank, Low Pressure Dosing Tank, Lift Station, Septic Tank & Trash Tank	Perforated Pipe, Chamber, or Drip Irrigation Line	Solid Pipe	Lagoons	Spray Irrigation Heads	Spray Irrigation Effluent
Private Well or Surface Water Supply	50 [1]	50 [1]	50 [3]	50 [2, 4]	50 [1]	25
Public Water Supply Well	300	300	50	300 [4]	300	300
Building	5	5	N/A	50 [5, 6]	N/A	N/A
Other Structure [7]	N/A [8]	5	N/A [9]	N/A	N/A	N/A
Waterline	5	15	10 [10]	15 [4]	15	N/A
Property Line	5	5	5	10 [5]	15	15
Impoundment or Stream [11]	15	15	N/A	15 [5]	25	25
French Drain/ Curtain Drain	15	15	N/A	15 [5]	15	15

1 Distances shall be one hundred feet (100') if the soil percolates one inch (1") in less than five (5) minutes or is classified as a Group 1 soil in the separation range.

2 Distances shall be one hundred feet (100') if the ground slopes toward the water supply.

3 Distances may be reduced up to ten feet (10') if, at a minimum, Schedule 40 pipe is used.

4 The distance shall be measured horizontally from the center line of the nearest dike.

5 The distance shall be measured from the outside base of the nearest dike.

6 This only applies to residences that are not located on the owner's property.

7 "Other structures" include but are not limited to driveways, parking lots and paved areas.

8 If septic tanks are located under paved areas, access to all manhole/cleanout openings shall be provided.

9 If solid pipe is installed under a roadway or a driveway, the pipe under the roadway/driveway and the ten feet (10') of pipe extending out from under the roadway/driveway on both sides shall be, at a minimum Schedule 40 pipe or sleeved with Schedule 40 pipe.

10 Ten feet (10') horizontal or two feet (2') vertical separation shall be maintained between any water line and solid pipe. When proper horizontal and vertical separation cannot be obtained then the solid pipe shall be constructed of, at a minimum, Schedule 40 pipe and shall be installed so the joints of both the water line and the solid pipe are as far apart as possible.

11 This includes the top bank of any stream or the normal pool elevation of an impoundment that is not used for a surface water supply.

APPENDIX E. HORIZONTAL SEPARATION DISTANCE REQUIREMENTS FOR ON-SITE SEWAGE TREATMENT SYSTEMS [NEW]

Required Horizontal Separation Distances in Feet

	Aerobic Treatment Unit, Flow Equalization Tank, Low Pressure Dosing Tank, Lift Station, Septic Tank & Trash Tank	Perforated Pipe, Chamber, or Drip Irrigation Line	Solid Pipe	Lagoons	Spray Irrigation Heads	Spray Irrigation Effluent
Private Well or Surface Water Supply	50 [1]	50 [1]	50 [3]	50 [2, 4]	50 [1]	25
Public Water Supply Well	300	300	50	300 [4]	300	300
Building	5	5	N/A	50 [5, 6]	N/A	N/A
Other Structure [7]	N/A [8]	5	N/A [9]	N/A	N/A	N/A
Waterline	5	15	10 [10]	15 [4]	15	N/A
Property Line	5	5	5	10 [5]	10	10
Impoundment or Stream [11]	15	15	N/A	15 [5]	25	25
French Drain/ Curtain Drain	15	15	N/A	15 [5]	15	15

1 Distances shall be one hundred feet (100') if the soil percolates one inch (1") in less than five (5) minutes or is classified as a Group 1 soil in the separation range.

2 Distances shall be one hundred feet (100') if the ground slopes toward the water supply.

3 Distances may be reduced up to ten feet (10') if, at a minimum, Schedule 40 pipe is used.

4 The distance shall be measured horizontally from the center line of the nearest dike.

5 The distance shall be measured from the outside base of the nearest dike.

6 This only applies to residences that are not located on the owner's property.

7 "Other structures" include but are not limited to driveways, parking lots and paved areas.

8 If septic tanks are located under paved areas, access to all manhole/cleanout openings shall be provided.

9 If solid pipe is installed under a roadway or a driveway, the pipe under the roadway/driveway and the ten feet (10') of pipe extending out from under the roadway/driveway on both sides shall be, at a minimum Schedule 40 pipe or sleeved with Schedule 40 pipe.

10 Ten feet (10') horizontal or two feet (2') vertical separation shall be maintained between any water line and solid pipe. When proper horizontal and vertical separation cannot be obtained then the solid pipe shall be constructed of, at a minimum, Schedule 40 pipe and shall be installed so the joints of both the water line and the solid pipe are as far apart as possible.

11 This includes the top bank of any stream or the normal pool elevation of an impoundment that is not used for a surface water supply.

APPENDIX F. ESTIMATED AVERAGE DAILY FLOW FOR SMALL PUBLIC ON-SITE SEWAGE TREATMENT SYSTEMS [REVOKED]

TYPE OF ESTABLISHMENT	FLOW UNIT	ESTIMATED AVERAGE DAILY FLOW In Gallons
Bar or Lounge	Per Seat	10
Boarding School	Per Room	50
Church w/o Kitchen	Per Sanctuary Seat	4
Church w/Kitchen	Per Sanctuary Seat	6
Condominiums, Apartments, Townhouses, Mobile Home Parks, and Housing Developments	Per Residence w/1 or 2 Bedrooms	200
	Each additional Bedroom	66
Construction Site	Per Worker	50
Country Club	Per Member	25
Daycare w/o Kitchen	Per Child	15
Daycare w/Kitchen	Per Child	25
Factory	Per Person Per Shift	15
Hospital	Per Bed	200
Hotel or Motel	Per Bed	75
Lounge	Per Seat	10
Movie Theater	Per Seat	5
Nursing Home	Per Bed	100
Office Building w/o Food Service	Per Occupant	5
Office Building w/Food Service	Per Occupant	10
Park w/o Bathhouse	Per Person	10
Park w/Bathhouse	Per Person	15
Laundry Mat	Per Machine	250
Restaurant-Fast Food	Per Seat	15
Restaurant-Full Service	Per Seat	35
RV Park	Per Space	50
School w/Food Service	Per Student	25
School w/o Food Service	Per Student	15
Service Station	Per Vehicle	10
Stores	Per Restroom	200
Swimming Pool Bathhouses	Per Person	10
Youth Camps	Per Camper	30

APPENDIX F. ESTIMATED AVERAGE DAILY FLOW FOR SMALL PUBLIC ON-SITE SEWAGE TREATMENT SYSTEMS [NEW]

TYPE OF ESTABLISHMENT	FLOW UNIT	ESTIMATED AVERAGE DAILY FLOW In Gallons	BOD[1] lbs/day per flow unit
Bar or Lounge	Per Seat	10	0.08
Boarding School	Per Room	50	0.20
Church w/o Kitchen	Per Sanctuary Seat	4	0.01
Church w/Kitchen	Per Sanctuary Seat	6	0.02
Condominiums, Apartments, Townhouses, Mobile Home Parks, and Housing Developments	Per Residence w/1 or 2 Bedrooms	200	0.50
	Each additional Bedroom	66	0.17
Construction Site	Per Worker	50	0.17
Country Club	Per Member	25	0.02
Daycare w/o Kitchen	Per Child	15	0.08
Daycare w/Kitchen	Per Child	25	0.10
Factory	Per Person Per Shift	15	0.08
Hospital	Per Bed	200	0.50
Hotel or Motel	Per Bed	75	0.15
Movie Theater	Per Seat	5	0.01
Nursing Home	Per Bed	100	0.26
Office Building w/o Food Service	Per Occupant	5	0.06
Office Building w/Food Service	Per Occupant	10	0.17
Park w/o Bathhouse	Per Person	10	0.01
Park w/Bathhouse	Per Person	15	0.02
Laundry Mat	Per Machine	250	0.30
Restaurant-Fast Food	Per Seat	15	0.10
Restaurant-Full Service	Per Seat	35	0.23
RV Park	Per Space	50	0.20
School w/Food Service	Per Student	25	0.10
School w/o Food Service	Per Student	15	0.04
Service Station	Per Vehicle	10	0.20
Stores	Per Restroom	200	0.05
Youth Camps	Per Camper	30	0.12

1 BOD numbers provided are based on industry data and represents standard loading rates for the design of aerobic treatment units.

APPENDIX M. EXAMPLES OF TRENCH INSTALLATION [REVOKED]

Figure 1. Cross-Section of Conventional Subsurface Absorption Trench

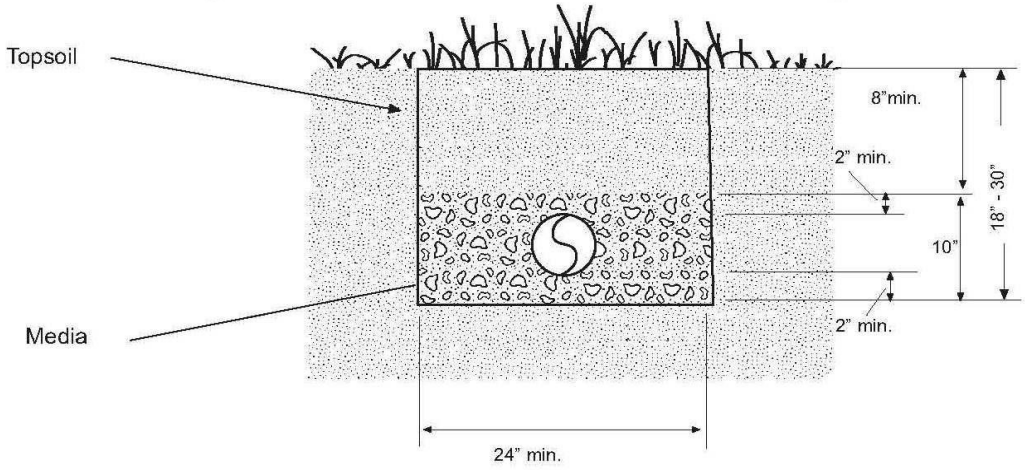


Figure 2. Cross-Section of ET/A Trench

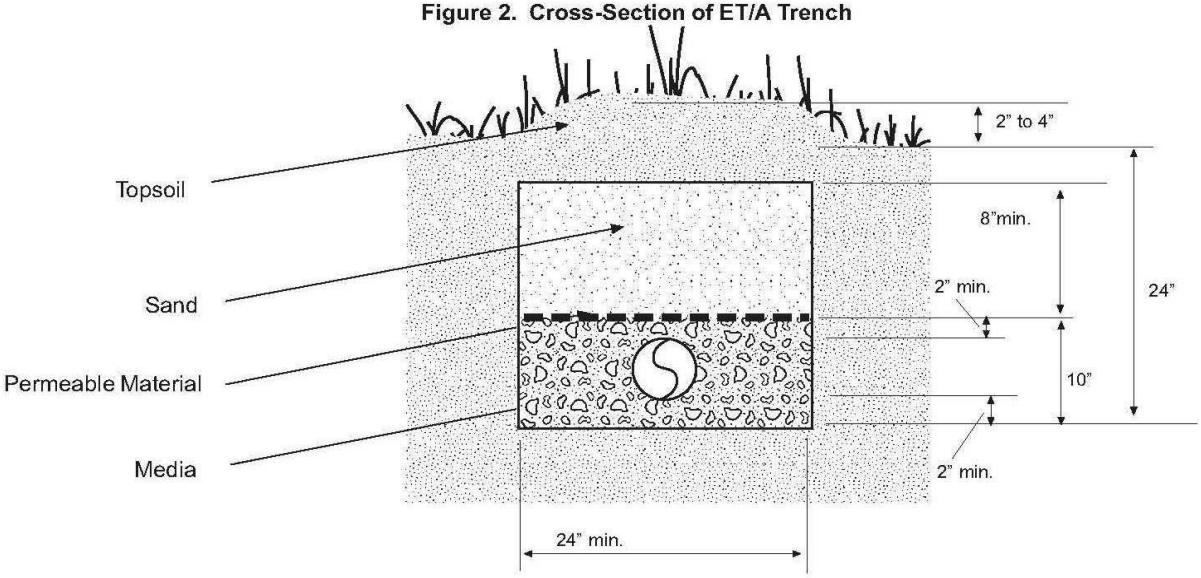
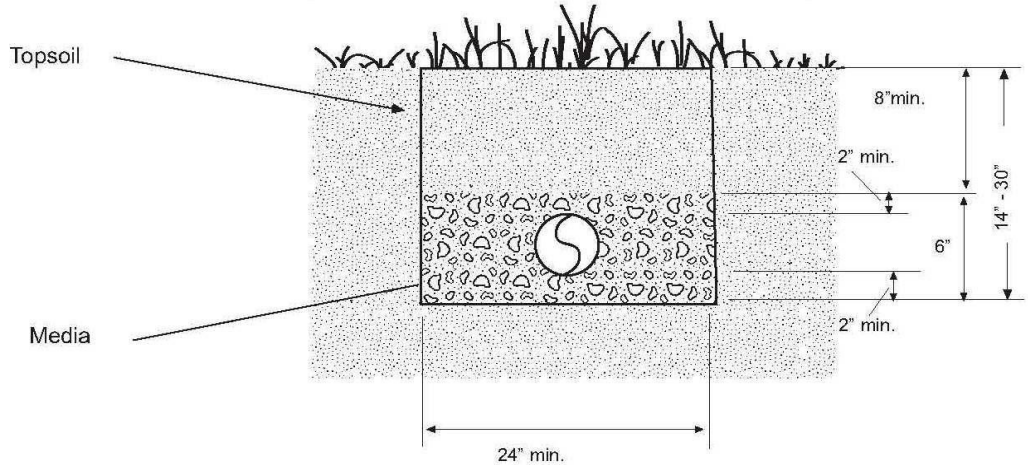


Figure 3. Cross-Section of Low Pressure Dosing



APPENDIX M. EXAMPLES OF TRENCH INSTALLATION [NEW]

Figure 1. Cross-Section of Conventional Subsurface Absorption Trench

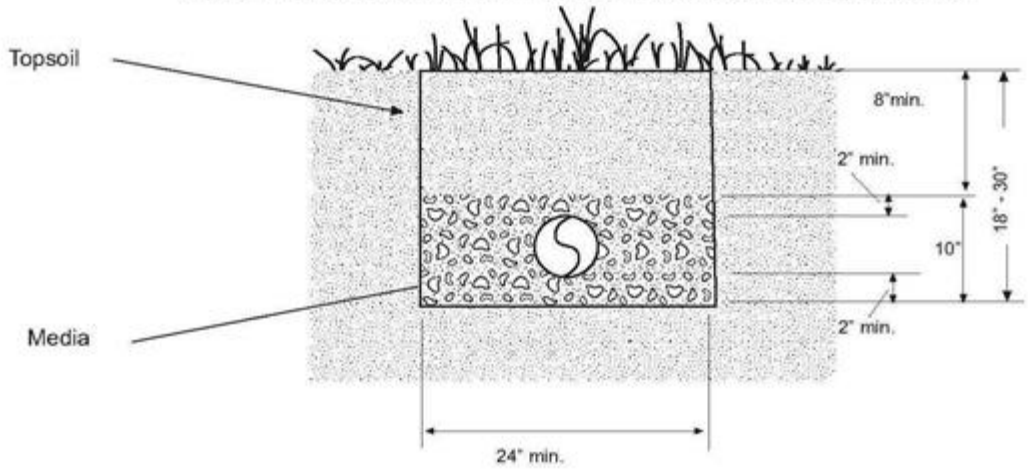


Figure 2. Cross-Section of ET/A Trench

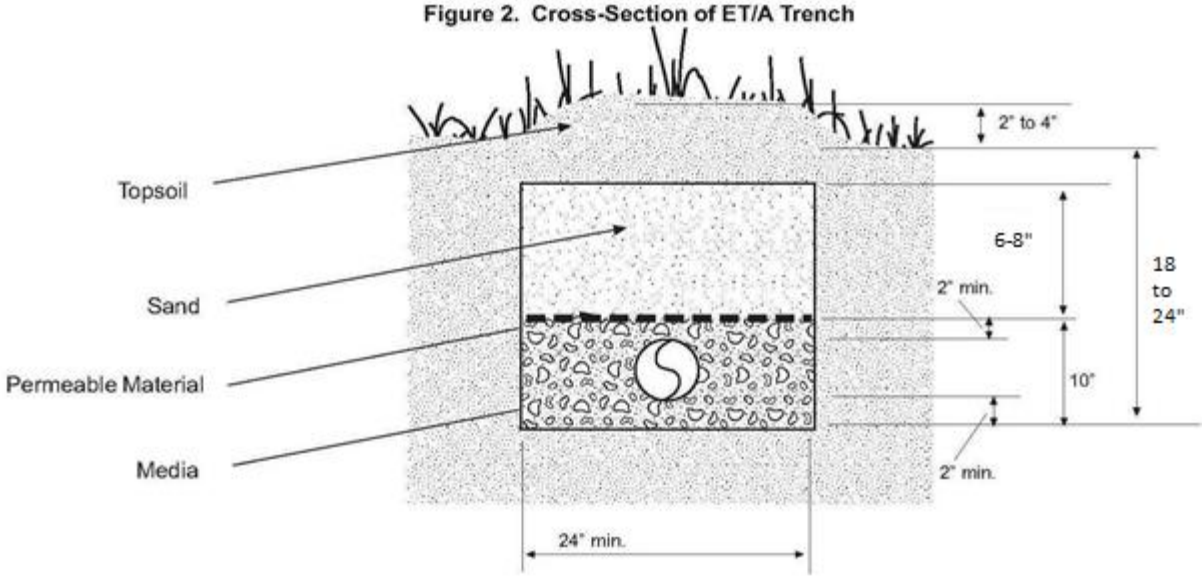


Figure 3. Cross-Section of Low Pressure Dosing