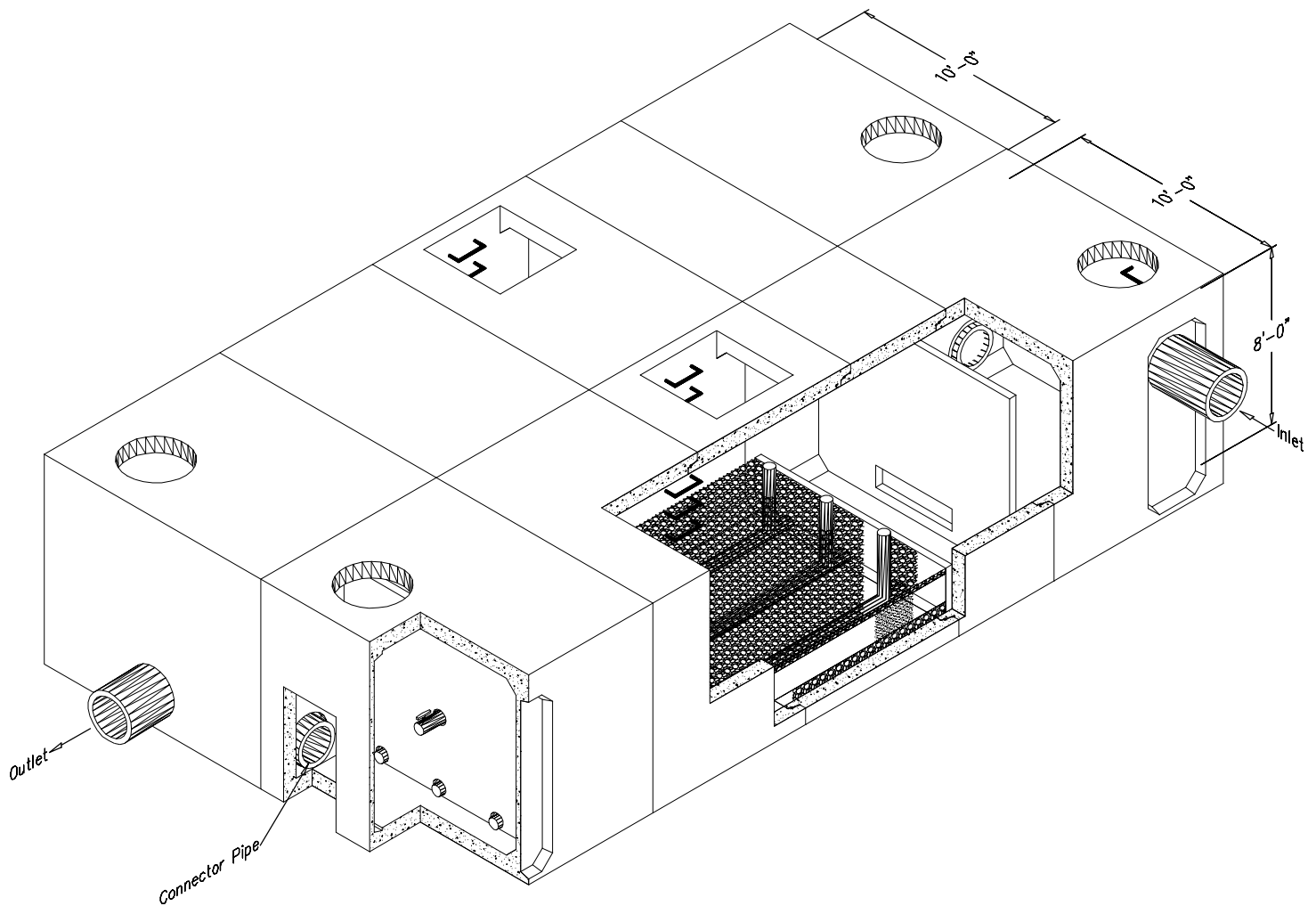
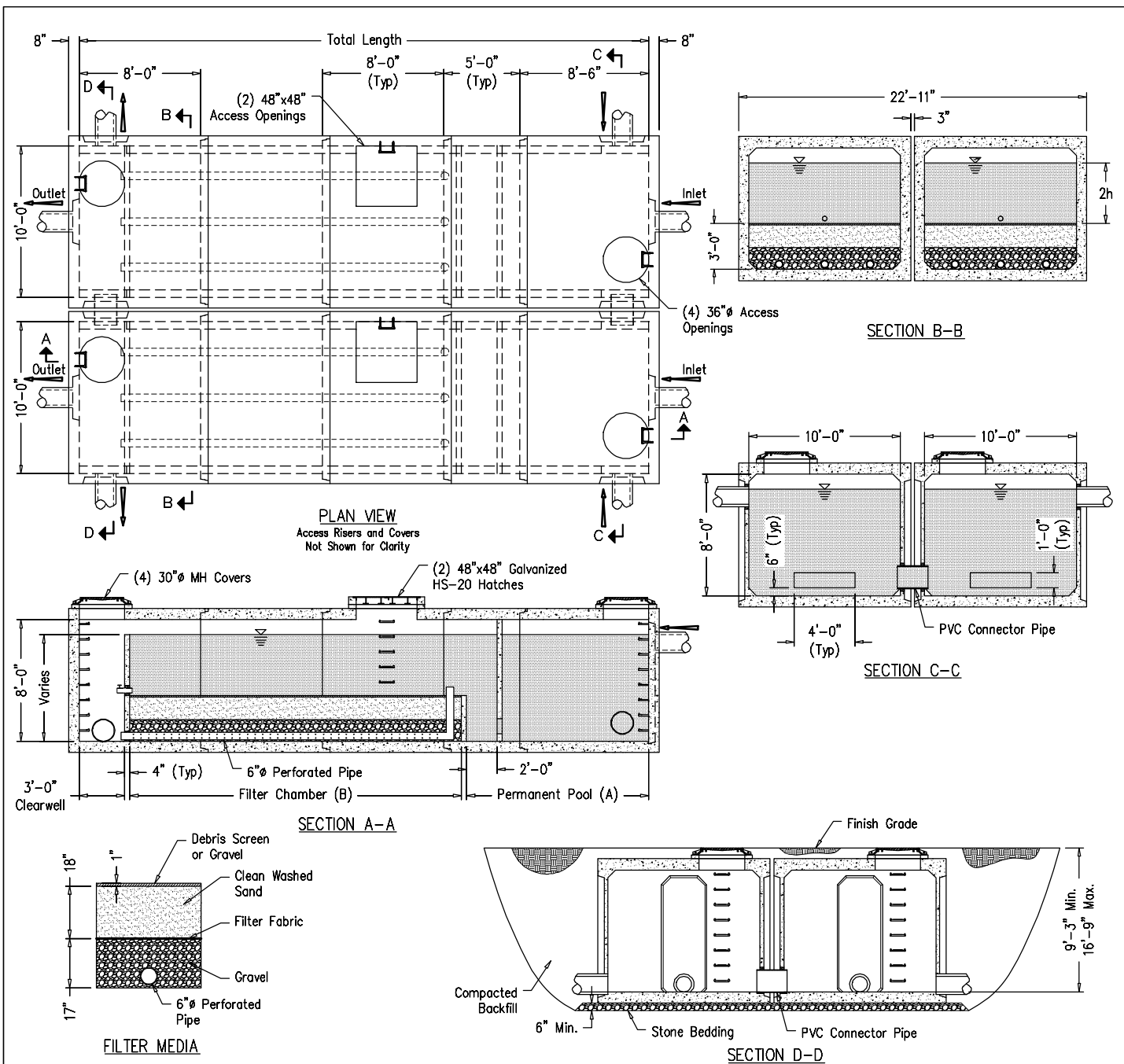


Twin Water-Tight Underground Sandfilter



DESIGN SPECIFICATIONS:

- Concrete Min (28-Day) Compressive Strength 5,000 psi.
- Reinforcing Deformed Bars: ASTM A-615 (Fy=60 ksi)
- Reinforcing Deformed Wire: ASTM A-185 or A-497 (Fy=65 ksi).
- Design Live Load: AASHTO HS-20.
- Earth Cover: 0'-6" Min. to 8'-0" Max.
- Soil Unit Weight: 120 pcf.
- Design Specifications: AASHTO, 16th Edition & ASTM C 890
- Water-tight Joint Specification: ASTM C 443



Sandfilter Chamber Lengths																	
Drainage Area (Acres)	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00
Permanent Pool (A)	13'-10"	18'-10"	20'-10"	23'-10"	26'-10"	31'-10"	33'-10"	36'-10"	41'-10"	43'-10"	45'-10"	49'-10"	54'-10"	56'-10"	58'-10"	61'-10"	66'-10"
Filter Chamber (B)	12'-0"	15'-0"	18'-0"	21'-0"	23'-0"	26'-0"	29'-0"	32'-0"	35'-0"	38'-0"	41'-0"	43'-0"	46'-0"	49'-0"	52'-0"	55'-0"	58'-0"
Clearwell	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"	3'-0"
Total Length	29'-6"	37'-6"	42'-6"	48'-6"	53'-6"	61'-6"	66'-6"	72'-6"	80'-6"	85'-6"	90'-6"	96'-6"	104'-6"	109'-6"	114'-6"	120'-6"	128'-6"

- Sandfilter Sizing Notes:**
- Sizes Figured Using "Unified Stormwater Sizing Method" Per The State Of Maryland.
 - Areas Are "Total Drainage Areas" Draining To Sandfilter.
 - Impervious Cover = 90%
 - Rainfall Depth = 1.0"
 - Height Of Water Above Filter (2h) = 4'-0"

Filter Media Quantities & Specifications			
Material	Qty/lf of Filter (B)	Specification	Notes
Sand	30 cf/lf	Clean AASHTO-M-6 or ASTM C-33 Concrete Sand	Size = .02" to .04"
Underdrain Gravel	28.8 cf/lf	AASHTO-M-43	Size = .375" to .75"
Filter Fabric	22.0 sf/lf	ASTM-D-4833 (PS = 125 lbs.) & ASTM-D-4632 (TS = 300 lbs.)	Must Maintain 125 gpm per sq. ft. Flow Rate
Underdrain Piping	6.0 ft/lf	F 758, Type PS 28 or AASHTO-M-278	6" Dia., .375" perf. @ 6" cc, 4 Holes Per Row

Twin Water-Tight Underground Sandfilter

ROTONDO

Environmental Solutions LLC

4950 EISENHOWER AVE., UNIT C
ALEXANDRIA, VA 22304
PHONE: 703-212-4830
FAX: 703-212-4832
WEB: www.rotondo-es.com