

## Enviro-Septic® Wastewater Treatment System DESIGN CRITERIA WORKSHEET

Manufactured by Presby Environmental, Inc. (800) 473-5298  
Distributed in Indiana exclusively by Environmental Septic Solutions, Inc. (812) 457-3144

| DESIGNED BY:     |  | INSTALLED BY:        |  |
|------------------|--|----------------------|--|
| Name:            |  | Name:                |  |
| Company:         |  | Company:             |  |
| Address:         |  | Address:             |  |
| Telephone:       |  | Telephone:           |  |
| PEI Cert. #:     |  | PEI Cert. #:         |  |
| SYSTEM OWNER(S): |  | SITE IDENTIFICATION: |  |
| Name:            |  | Address:             |  |
| Address:         |  | Town:                |  |
|                  |  | Map/Lot:             |  |
|                  |  | Permit #:            |  |
| Telephone:       |  | County:              |  |

**Note: Presby Environmental, Inc. and Environmental Septic Solutions, Inc. strongly recommend the completion of these worksheets for all system designs to assure proper design criteria are utilized. Completed documentation to be retained by Designer, with copies provided to the installer, system owner and the local health officer.**

### Instructions to Designer: Complete all white sections by filling in blanks or circling

|   |   |      |      |   |      |      |  |  |
|---|---|------|------|---|------|------|--|--|
| <b>Indiana Soil Loading Rate</b><br>(IN-SLR GPD/sf) circle one  | 0.25  | 0.30 | 0.50 | 0.60  | 0.75 | 1.20 | <i>Attach Site/Soil Evaluation Report.<br/>Refer to Table B in manual.</i>   |  |
| <b>Presby Soil Loading Rate</b><br>(PR-SLR GPD/sf) circle one   | 0.37  | 0.45 | 0.75 | 0.90  | 1.12 | 1.20 |  |  |
| <b>Number of Bedrooms</b><br>(determines system size)   | Sizing charts assume 150 gallons per day per bedroom<br># of bedrooms x 150 gallons per day = Daily Design Flow<br>(Add 1 bedroom for each jetted tub 125 gal.+ capacity) |      |      |   |      |      | Daily Design Flow<br><br><b>Bedrooms x 150 =</b><br><b>GPD</b>   |  |
| <b>Required Minimum Separation Distance to SHWT or Limiting Layer</b><br>(Circle 24 inches or 30 inches)  | <b>24 INCHES</b><br>(Design Flow < 450 GPD per Bed)   |      |      | <b>30 INCHES</b><br>(Design Flow ≥ 450 GPD per Bed)                 |      |      | <i>Measured from the sand bed bottom/soil interface. It is acceptable to divide flows greater than or equal to 450 GPD into multiple beds in order to use 24" separation distance.</i> |  |
| <b>Vertical Orientation of System</b> (circle one)  | <b>SUBSURFACE</b><br>(Infiltrative surface 4" or more below orig. grade)  |      |      | <b>ELEVATED</b><br>(infiltrative surface < 4" below original grade) |      |      | <i>It is <u>always</u> preferable to raise the bed when a SHWT is encountered; however, a perimeter drain may still be required.</i>   |  |
| <b>Type of System</b><br>(circle one)   | <b>GRAVITY FED</b>  |      |      | <b>FLOOD DOSED</b>  |      |      | <i>Flood dose frequency: minimum=design flow ÷ 6<br/>Maximum design flow ÷ 8 (per day)</i>   |  |
| <b>Configuration</b><br>(circle one)  | <b>BASIC SERIAL</b><br>(0.25 – 1.20 PLR GPD/sf)   |      |      | <b>COMBINATION</b><br>(0.25 – 1.20 PLR GPD/sf)                      |      |      | <b>NON-CONVENTIONAL</b><br>(0.60 PLR GPD/sf or faster)   |  |
| <b>Site Slope / System Slope</b>  | <b>LEVEL (0-1/2%)</b>   |      |      | <b>SLOPING _____ %</b>  |      |      | <i>6% max. slope for elevated systems<br/>15% max. slope for subsurface systems</i>  |  |
| <b>Depth to Limiting Layer</b>  | _____ inches  |      |      | <b>Depth to SHWT =</b>  |      |      | _____ inches   |  |
| <b>Perimeter Drain included?</b><br><i>(Req'd. if SHWT is less than 24 in. from infiltrative surface)</i> | <b>YES      NO</b><br>(circle one)  |      |      | <b>Minimum Drain Depth =</b>  |      |      | _____ inches   |  |

**Presby Design Criteria Worksheet, page 2**

|  |  |   |  |
|--|--|---|--|
| <b>System Sand Bed Area =</b><br>(from Table B)  | _____ sq ft min.   | <b>System Sand Bed Length (SSBL) =</b><br>(from Table C)  | _____ ft min.  |
| <b>Row (line) Length min. =</b>  | _____ ft<br>(SSBL -2 ft)   | <b>Bed Bottom at highest elevation of original grade</b>  | _____ inches below grade   |
| <b>High Vent from d-box?</b>   | <b>YES</b> <b>NO</b><br>(circle one)   | <i>Flood dosed: High vent off d-box is required.</i><br><i>Gravity: House (roof) vent is the high vent; no vent off d-box.</i><br><b>Low vent required for ALL systems.</b><br><i>Note: 10 ft. min. differential between. High and Low vent inlets.</i> |  |
| <b>Distribution Box included?</b>  | <b>YES</b> <b>NO</b><br>(circle one)   | <i>D-box to be installed on stable, compacted base. Insulate d-box in pumped systems to prevent freezing. Flow equalizers required. If dividing flow to multiple sections or beds.</i>  |  |
| <b>Minimum Presby pipe required</b>  | _____ FT OF PRESBY PIPE REQUIRED<br>(From Table A)   |   | Amount of pipe required is based on the # of bedrooms and the Presby pipe selected (AES, ES or SS)   |
| <b>Row (Line) Length used =</b><br>(Maximum row length is 100 ft)  | _____ FT ROW (LINE) LENGTH<br>(minimum row length = minimum System Sand bed – 2 ft)  |   | Ideal system shape is as long & narrow as the site will allow.   |
| <b>Total Number of Rows used</b>   | _____ FT PIPE REQ'D. ÷ ROW LGTH _____ =<br>_____ MIN. NUMBER OF ROWS<br>(Round UP if result is not a whole number)                                   |   | All systems/beds require a minimum of 2 rows (lines). Easiest to work with 10 ft. increments.  |
| <b>Determine System Sand bed length (SSBL) used</b>  | _____ FT MIN. + 2 FT. = _____ FT SYSTEM SAND ROW LENGTH BED LENGTH   |   | Bed length is always 2 ft more than minimum row (line) length.   |
| <b>Determine System Sand bed width minimum</b>   | _____ SSBA ÷ _____ FT SSBL used =<br>_____ FT SYSTEM SAND BED WIDTH (SSBW)   |   | System Sand always extends 1 ft horizontally beyond pipe ends.   |
| <b>Center- to-Center Row Spacing</b>   | <b>SPACING IS FIXED AT 1.5 FT</b><br>(level fields: center rows in middle of sand bed area)<br>(sloping fields: group rows at high side of sand bed) |   | Distance from the center of one row to the center of the adjacent row.   |
| <b>Determine if Multiple Beds are required</b><br>(Note: each bed must receive an equal amount of effluent.) | <b>YES</b> <b>NO</b><br>(circle one)<br><br><b>If "Yes": _____ # of Beds Required</b>  |   | Multiple beds can be used to accommodate site constraints. Bed loading limit is 750 GPD; divide daily design flow by 750 to determine number of beds. It is acceptable to divide flows greater than 450 GPD into multiple beds in order to use 24 inches required separation distance rather than 30 inches. |
| <b>If Multiple Beds are required, determine layout</b>   | <b>END-TO-END</b> <b>SIDE-TO-SIDE</b><br>(circle one)<br><br><i>Note: End-to-End configurations are preferred</i>                                    |   | <i>End-to-End beds separated by a min. of 4ft. undisturbed soil.</i><br><i>Side-to-Side beds separated by a minimum of 20 ft.</i>  |
| <b>Determine depth of System Sand required below pipes</b>   | <b>12 INCHES</b> <b>6 INCHES</b><br>(if elevated) (circle one) (if subsurface)   |   | Elevated systems require an additional 6 in. of System Sand below the pipes.   |
| <b>PROPOSED SYSTEM SUMMARY OF DESIGN CRITERIA :</b>  |  |   |  |
| <b>DESIGN CRITERIA:</b>  | <b>REQUIRED MINIMUM</b>  | <b>ACTUAL PROVIDED IN DESIGN</b>  |  |
| Total Presby Pipe (ft.)  | _____ FT   | _____ FT  |  |
| Row (Line) Lengths   | _____ FT   | _____ FT  |  |
| Numbers of Rows (Lines)  | _____  | _____   |  |
| Center-to-Center Spacing   | _____ FT   | _____ FT  |  |
| Number of Beds   | _____  | _____   |  |


**Presby Design Criteria Worksheet, page 3**

***By signing below, Designer confirms dimensions have been written in on the appropriate (one) cross section on the attached page and a copy of the plan or a sketch of the plan is attached to this worksheet. Designer further confirms that a copy of the completed worksheet has been provided to the installer, system owner, and local health officer.***

Signed: \_\_\_\_\_ Dated: \_\_\_\_\_

(Print Name Here: \_\_\_\_\_ ) PEI Cert. #: \_\_\_\_\_

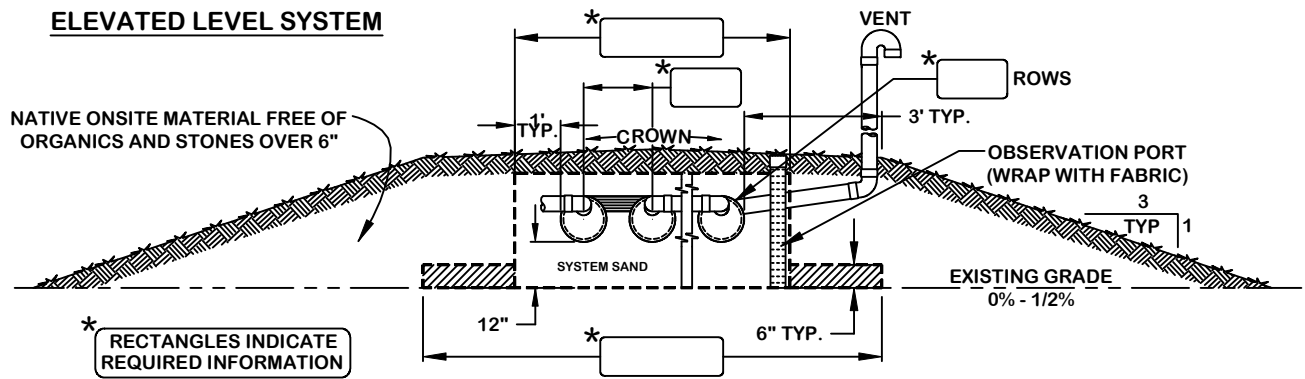
In the space below, sketch the Enviro-Septic® System design, including references to structures or other benchmarks to indicate system location on the site. Indicate "As Built" changes. Retain a copy with system documentation and provide a copy to the System Owner.



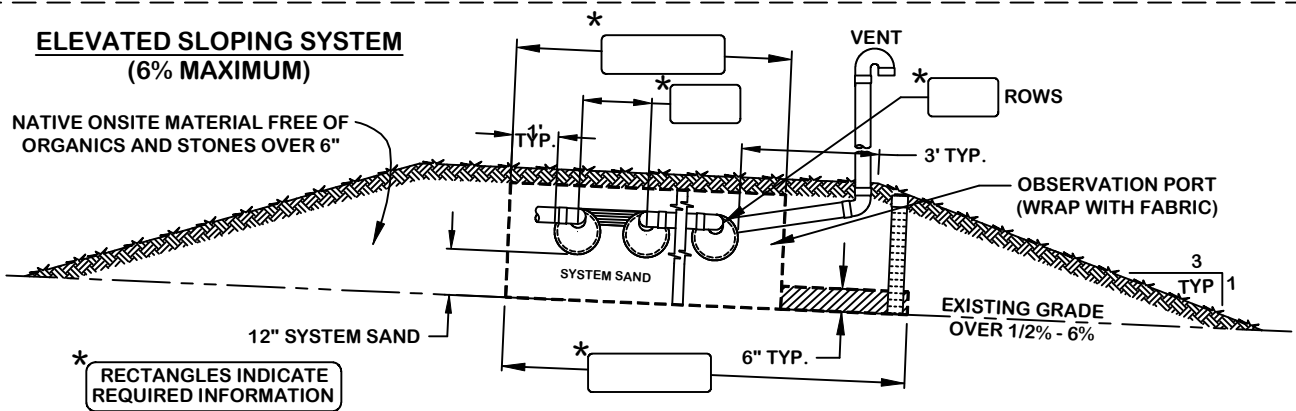
**\* NOT TO SCALE UNLESS NOTED\***

# CHOOSE CROSS-SECTION THAT APPLIES AND PROVIDE REQUIRED INFORMATION

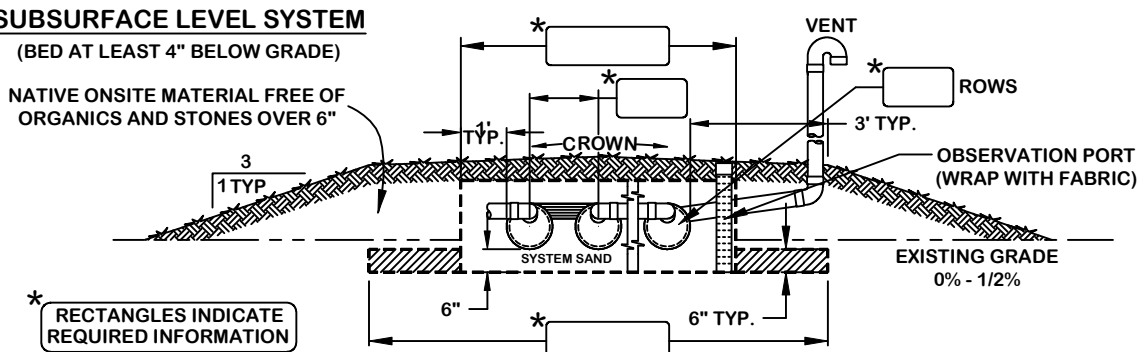
## ELEVATED LEVEL SYSTEM



## ELEVATED SLOPING SYSTEM (6% MAXIMUM)



## SUBSURFACE LEVEL SYSTEM (BED AT LEAST 4" BELOW GRADE)



## SUBSURFACE SLOPING SYSTEM (15% MAXIMUM) (BED AT LEAST 4" BELOW GRADE)

