How to Calculate the Number of UltraBaseSystems® Panels and Amount of Geosynthetic Fabric Needed For Your Project



INNOVATIVE BASE TECHNOLOGIES, LLC • 5030 SEMINOLE BLVD. • ST. PETERSBURG FL, 33708 727 391-9009 • F: 727 391-9980 • SALES@ULTRABASESYSTEMS.COM This worksheet is designed to show the different types of UltraBaseSystems (UBS) panels and to show how to layout your desired synthetic grass or paver project. This worksheet will give you an idea of how many UBS panels you will need to order. If you have any questions please don't hesitate to call us at (727) 391-9009 or email sales@ultrabasesystems.com.

Getting Started:

What you need to know about your project:

- Your desired size
- Your desired shape
- Type of installation (landscape, paver, patio, golf green etc.)

Choose your Design Sheet:

The size of your project will determine what size design sheet is needed. There are several design sheets that vary by size. Blank design sheets are at the end of this document.

Identifying the Type of Panel Needed:



Champion Panel Panel Dimensions: 30" x 30" x .75" /762mm x 762mm x 19.05mm Professional Panel Panel Deminstions: 30" x 30" x 1.25"/762mm x 762mm x 31.6mm

** A golf cup hole can be cut in the Professional Panel if the use of a golf cup is required.

Setting Up Your Design Sheet:

- Position your design sheet vertical with "Ultra Base Design Sheet" at the bottom.
- Starting in the bottom left corner, count up the left side to the desired length and put a mark. (Figure 2.1)
- Starting in the bottom left corner, count along the bottom to the desired width and put a mark. (Figure 2.1)
- Box off the area and the inside will be your workspace. (Figure 2.2)

NOTE: The panels can be cut to form any shape. With that in mind, if your design intersects a partial box, this is acceptable.

12/12/1



NOTE: It is important to stay within your set workspace to avoid creating a design outside of your allowed space.

Setting Up Your Design Sheet Continued:

• Draw your desired shape inside the workspace (Figure 3.1).

NOTE: When creating your design, try to eliminate the need for extremely small pieces of panels. It is often easier to simply adjust your design to eliminate this situation.

- Square off your shape to nearest full box. (Figure 3.2).
- Count the number of boxes (Figure 3.3) and add it in the chart (Figure 4.4) in the section "Number of Panels".



Figures 3.1-3.3 show a paver area where the home owner only had a 20' x 20x space.

Double Cuts:

Double cutting the panel is key to material and cost savings. A general rule is, if the edge of your project cuts through less than half of the panel, that panel can reused and cut again. See Figures 4.1 and 4.2





Can be Double cut

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-/

Figure 4.2 Can be double cut if a small corner piece is required.

Identifying the Number of Panels Needed:

- Count the total number of panels. Put that amount in the "Number of Panels" box.
- Count the panels that can be double cut, divide it by two, then put the amount in the box. (Figure 4.3) NOTE: The panels that can be double cut are marked with an "X"
- Calculate the difference between the "Number of Panels" and the total number of double cuts. This will give you the total number of panels you will need to order.



In this figure 8 panels can be double cut. 8 divided by two equals four. Four less panels are required.

Panel	Total
Number of Panels	60
Double Cuts	4
Total Amount of Panels Needed	56

Figure 4.4

HOW TO LAYOUT A RECTANGLE/SQUARE AREA :



HOW TO LAYOUT AROUND EXISTING OBJECTS:















HOW TO LAYOUT A LANDSCAPE AREA :



This example above will require 106 panels.

Total panels minus amount of panels that can be double cut equals the total number of panels needed. To calculate the number of panels that can be doulbe cut reference page 4.

111-5=106

HOW TO CALCULATE THE AMOUNT OF GEOSYNTHETIC FABRIC NEEDED: This example is calculated for a 25'x75' area

Note: Permeable Fabric Rolls 15' wide and Impermeable Fabric Rolls 12' wide

Formulas

Square Feet=Length *times* Width Geo Length=Square Feet *divided by* Geo Width

Square Feet Square Feet=25' x 75' Square Feet=1,875 sq ft **Geosynthetic Fabric 15'** Geosynthetic Fabric Width = 1,875/15 Geosynthetic Fabric Width = 125

In this example a 15' x 125' piece of Geosynthetic Fabric is needed.

Note: Round your fabric width up to the nearest number



WORKSHEET:

Contact:	Phone:	Email:	
Project Name:		Date of Installation:	
Project Address:			
Desired Size (In Feet):	X		
Type of Panel: □Champion	□Professional		
Installation Type: Indoor	□Outdoor □Roofto	р	
Project location (ie: up agains	t an exterior wall, border b	by sidewalk etc.)	

Panel Count:

Panel	Total
Number of Panels	
Double Cuts	
Total Amount of Panels Needed	

Type of Geosynthetic Fabric:
Permeable
Impermeable

Size of Geosynthetic Fabric Needed (In Feet):___

Additional Comments:

Please send this sheet and your completed design sheet to: sales@UltraBaseSystems.com or Fax: 727 391-9980.







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